Ministry of Scientific Research and Innovation

WEH PHONOLOGY SKETCH

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1. Introduction

Language name:	**Weh**
Language name in Ethnologue:	**Weh**
ISO code:	**weh**
Country:	**Cameroon**
Major language family:	**Bantoid**
Minor language family:	**Grassfields**
Dialect on which this study is based:	**N/A, only one dialect**
Approximate population:	**7,000**
Name of researcher:	**Phil Davison**
Dates of research:	**2008-2009**
References consulted:	**See end of document**

Weh is a Grassfields Bantu language spoken by about 7,000 people in the Menchum Division of the North West Region, Republic of Cameroon. The SIL Ethnologue classifies Weh as: Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Wide Grassfields, Narrow Grassfields, Ring, West, and there is an additional comment: 'similar to Aghem'. Both Weh and Aghem are listed in ALCAM (Dieu and Renaud 1983) under 'langues de la zone 8' under the number 810 (Aghem). The Weh language appears under the double heading 'wi-isu', which is subdivided as follows: "wi (= Weh < adm.) and isu (= esu, umusu)" (p.69). As indicated in the ALCAM entry, Weh is the name given by colonial administrators to the language, and incidentally to the main town of the Weh-speaking area. For the native speakers, the language is [kɨ́wí], the [kɨ-] being a noun class prefix (class 7).

The background research for this current phonology report was carried out principally in 2009 in Yaounde. Several Weh speakers provided help in data collection: Mr Simon Buh, Mr Chrysantus Kum, Mr Mei Eugine Mou (whose insights about his language were greatly appreciated). The greatest impetus and input, however, was provided by Mr Ferdinand Asei, who deserves more thanks than can be given in such a brief introduction.

The conclusions below are based on a corpus of c.1,400 Weh words, of which just over 800 have been classified as 'basic vocabulary' (monomorphemic roots, mostly nouns and verbs). They were entered in a Toolbox database, and an initial phonology report was created using SIL's 'PTEST' software. This was subsequently greatly edited and added to, to produce the report which follows. (A version of the PTEST report is being made available for consultation: the great advantage with that is that it contains hyperlinks to examples in all of the charts and tables: in this way a great deal more data than can be contained in a sketch such as this one can be accessed.)

2. Root and basic word structure

Weh lexical roots have a structure as follows:

C1 V1 (C2) (V2)

V1 may be long in CV roots, but not with a following C2 (NB: long vowels in roots are somewhat rare). Consonants in C2 position are limited (see chart 3.2.2 below). V2's are fairly rare, and are either echo vowels (e.g. [fɨ́-báʔá] 'string', [ní-tɔ̄ŋɔ̄] 'call'), [i] (e.g. [ní-kɔ̄lī] 'cough', [kɨ́-sàʔì] 'comb'), or [ə] (e.g. [kɨ́-túŋə̄] 'ear', [ní-bāŋə̄] 'seize, grasp').

2.1 Noun structure

In citation form, most nouns appear with a noun class prefix (classes 1 & 9 have a Ø- prefix). Though most Weh prefixes have a high tone, low tone prefixes do occur in a handful of cases (which we will consider exceptions: prefixes appear with the regular high tone in the following chart).

Noun class	*Class prefix*	*Weh example and gloss*
1	Ø-	wá: 'child'
2	á-	á-wá: 'children'
3	ú-	ú-kɔ́ʔ 'bed'
4	í-	í-kɔ́ʔ 'beds'
5	í-	í-sɨ́ 'eye'
6	á-	á-sɨ́ 'eyes'
6a [1]	Ń- [2]	ɲ́-ɲáʔ 'egg-plants'
7	kɨ́-	kɨ́-fə́w 'mouse'
8	ú-	ú-fə́w 'mice'
9	Ø-	mbɔ̀ʔ 'shoulder'
13 [1]	tɨ́-	tɨ́-mbɔ̀ʔ 'shoulders'
19 [1]	fɨ́-	fɨ́-ɲáʔ 'egg-plant'

Notes:

1) Larry Hyman (in 'Aghem Grammatical Structure') has classes 10, 11 and 12 (for our 13, 19 and 6a respectively): the numbering adopted here follows traditional Narrow Bantu numbering. The Weh orthography guide uses the numbers 1-12 (à la Hyman), on the grounds that such a system will be easier to teach within the Weh community.
2) Class 6a prefix is a syllabic nasal which assimilates to the point of articulation of the following root-initial C.

2.2 Verb structure

A decision was made to collect Weh verb data with the verbal prefix [ní-], to ensure a consistency of form: this results in something akin to an infinitive. The prefix carries a high tone, and since it causes downstep in a following high-tone root, presumably a following floating low as well, e.g. [ní-fə̄p] 'blow'.

2.3 Suffixes

The commonest suffix in Weh is /-lɨ/ (phonetically [lə]), and it occurs in verbs and nouns. Although we have not investigated this in detail, it does seem as if this suffix is underlyingly toneless, acquiring its surface tone from the preceding root. When added to verb roots, it has a number of different functions, some of which are regular: it can create nominalised verbs or add a continuous or repetitive sense to a root:

[ní-zū] ‘buy’ [zú:-lə́] ‘buying’

[ní-sīɣə̄] ‘slice’ [ní-sīɣī-lə̄] ‘slice into pieces’

As can be seen, the addition of this suffix brings about phonological changes (e.g. the lengthening of the vowel in the first example above): other changes are more complex, and they will be referred to at various stages throughout this document. (A fuller list of examples is given in the appendix.) In cases where there is no apparent ‘simple’ root that goes with what seems to be a form with a suffix, we assume a basic simple root form plus suffix by analogy with known pairs of words such as those mentioned immediately above. Thus [kɨ́tàŋːə̀] ‘hat’ is, in this view, composed of three underlying morphemes:

[kí-]	noun class 7 prefix
[tàŋ]	basic root
[-lə]	suffix

The appearance of the lengthened [ŋ] is one of the phonological changes previously mentioned and will be discussed in section 3.5 below.

3. Consonants

3.1 Phonetic consonant chart

	Bilab	**Lab-dent**	**Alveolar**	**Postalv**	**Palatal**	**Velar**	**Lab-velar**	**Glot**
Vl Stops	p		t			k	kp	ʔ
Vd Stops	b		d			g	gb	
Vl Asp Stops	p^h							
Prn Vd Stops	^{m}b		^{n}d			^{ŋ}g	^{ŋ}gb	
Vl Affric		pf	ts	tʃ		kx		
Vd Affric		bv	dz	dʒ		gɣ		
Prn Vd Affric		^{m}bv	^{n}dz	^{n}dʒ		^{ŋ}gɣ		
Vl Fric		f	s	ʃ				
Vd Fric	β	v	z	ʒ		ɣ		
Nasals	m		n		ɲ	ŋ		
Syll Nasals	m̩	ɱ̩	n̩		ɲ̩	ŋ̩	ŋm̩	
Liquids			l					
Approximants					j		w	

Since these phonetic consonants do not all appear in the same environments, it will be more revealing to show their occurrence by root position before going into more detail.

3.2 Phonetic Consonants by root position

3.2.1 Phonetic Consonants found in root-initial position (C1)

The chart below shows all of the phonetic consonants that occur root-initially in the data.

	Bilab	Lab-dent	Alveolar	Postalv	Palatal	Velar	Lab-velar
Vl Stops	(pʰ)[1]		t			k	kp
Vd Stops	b		d			g	
Prn Vd Stops[2]	ᵐb		ⁿd			ᵑg	ᵑgb
Vl Affric			ts	tʃ		(kx)[3]	
Vd Affric		bv	dz	dʒ		(gɣ)	
Prn Vd Affric[2]		ᵐbv	ⁿdz	ⁿdʒ		(ᵑgɣ)	
Vl Fric		f	s				
Vd Fric			z			ɣ	
Nasals	m		n		ɲ	(ŋ)[4]	
Liquids			l				
Approximants							w

Notes:
1) The case of root-initial [pʰ] is dealt with in section 3.3.4 below.
2) Prenasalised stops and affricates are dealt with separately in section 3.9.
3) The 'velar affricates' are a special case, and are dealt with in section 4.3.3.
4) The velar nasal is found in C1 position in only one word: [ní-ŋāʔ] 'pinch'.
5) Note that the approximant [j] is not found in root-initial position.

3.2.2 Phonetic Consonants found in root-medial/final position (C2)

In this case it would be useful to make a further distinction: between those C2 consonants which occur in CVC roots and those which occur in CVCV roots. More details are given in section 3.4. The following chart shows the phonetic consonants that occur in C2 position in CVC roots.

	Bilab	Alveolar	Palatal	Velar	Lab-velar	Glot
Vl Stops	p	t				ʔ
Nasals	m	n		ŋ		
Approximants			j[1]		w[1]	

The chart below shows the phonetic consonants that occur in C2 position in CVCV roots.

	Bilab	Alveolar	Velar	Glot
Vl Stops				ʔ
Vd Stops	b		(g)[2]	
Vd Fric	β		(ɣ)[3]	
Nasals	m	n	ŋ	
Liquids		l		

Notes:
1) The approximants [j] and [w] occur in C2 position if [ej], [əw], [aj] and [aw] are interpreted as VC sequences rather than unitary diphthongs (section 4.3.1).
2) [g] has been found in C2 position in only one word: [lógō] 'cassava'.
3) [ɣ] is in brackets here due to its occurrence in words such as [bɨ̀ɣə̀] 'two': we will argue

(section 4.3.2) that [ɨɣə] is somewhat of a 'special case', and that [ɣ] is a C2 consonant only in extremely limited circumstances.

3.3 Individual Consonant phonemes

3.3.1 Bilabial stop /b/

This is realised as [p] in C2 position in CVC roots (usually unreleased utterance finally), and [b] in C1. When such a CVC root is followed by a vowel, the intervocalic stop is realised as [b]:

[ú-ɣə́p˺] 'bones' [ɣəb u tsɨɣə] 'fish bones'

This process can also be seen when a CVC verb root with final [p] is followed by the [-lə] suffix. A number of phonological changes occur, and as a result, the root-final consonant may be [b] in careful speech or [β] in faster speech.

[ní-bə̄p˺] 'spoil, go bad' [ní-bə̄ːbə̄] ~ [ní-bə̄ːβə̄] 'destroy'

3.3.2 Alveolar stops /t/, /d/

The relationship between [t] and [d] is different than that between [p] and [b]. Both contrast with each other in C1:

[ní-tī] 'escape' [ní-dì] 'show, teach'

[ní-tà] 'jump' [ní-dà] 'light fire'

It is also noteworthy that they both contrast with /l/ in this position:

[ní-dà] 'light fire' [ní-lā] 'be poor'

[ní-tāʔ] 'support' [ní-làʔ] 'wander, get lost'

The phonetic [t] occurs as C2 in CVC roots (e.g. [ní-bàt] 'tear'), and when the [-lə] suffix is added to such roots, the result is as follows:

[ní-bàt] 'tear' [bàːlə] 'tearing'

There are further instances where [t] alternates with [l]:

[í-zə́t] 'name' [zə́lí ndzɔ̀ŋ] 'first name'

The preceding situation is made more complicated by the fact that [t] seems to alternate with [d] in other circumstances:

[dət] 'heavy' [ŋgíː dəd-ə̀] 'heavier'

For this reason, there is as yet no simple interpretation of [t] as C2 in CVC roots.

3.3.3 Velar stops /k/, /g/

The voiced velar stop is somewhat rare, but it does appear in C1 (where it contrasts with [k]):

[kɨ́-kə̀m] ‘log’ [kɨ́-gə̀m] ‘fig’

[ní-kām] ‘squeeze’ [ní-gāːmə̄] ‘help’

Only one word has so far been found with [g] in C2, [lógō] ‘cassava’.

The glottal [ʔ] appears only in C2, and is thus in complementary distribution with [k] (only C1):

[ní-kàʔ] ‘begin’ [ní-dòʔò] ‘sit’

3.3.4 Labial-velar stops /kp/, /gb/

These sounds are somewhat rare (especially [gb]), but they are present:

[ní-kpèj] ‘harvest (maize)’ [ní-gbə̀w] ‘dig’

Other than in coda position (where it is an allophone of /b/ as described above), the voiceless bilabial stop is extremely rare. If we exclude the obvious loan word [pɔpɔ] ‘pawpaw’, it only occurs, clearly aspirated, before [u]. Hyman comments for Aghem: “phonologically we view this pu syllable as a simplification of [kpu], which is heard in other dialects” (p4). Although Weh [kp] does not appear to be as rare as its Aghem counterpart, it is likewise never found before [u], and so we will follow Hyman in concluding that (non-coda) [pʰ] is a realisation of /kp/.

[ní-pʰū] ‘die’ [ú-pʰu̍ː] ‘njamanjama’ (green leafy vegetable)

The labial-velar stops have a slight “diphthongising” effect on a following syllable-final [i]:

[kɨ́-kpᵊí] ‘arm’ [ŋmgbᵊī] ‘thorn’

3.3.5 Labiodental affricates /pf/, /bv/

These affricates are truly labiodental in Weh, i.e. both the stop and fricative elements are made by contact of the upper teeth with the lower lip. It is not known why [pf] should be rarer than [bv], occurring in a very small number of words. In each case, [pf] is followed by a central vowel:

[ní-pfɪ̄] ‘chew’ [ní-pfə̄ːlə̄ ù-nɨɣə̀] ‘be angry’

There is a clear contrast between [pf] and [f]:

[ní-pfɪ̄] ‘chew’ [ni-fɪ̄] ‘burn, let burn’

The voiced [bv] counterpart is more common, but here too the majority of occurrences are before a central vowel:

[í-bvɨ́] ‘death’ [í-bvə̂t] ‘feather’ [ní-bvə̀lə̀] ‘cultivate, hoe’

We have found one or two examples of [bv] where the following vowel is [i] or [u]:

[kɨ́-kɨbvùŋə̀] ‘millipede’ [kɨ́-bvíʔɨ́] ‘farm’ (c.f. Aghem [kɨ-bveʔe], ‘3rd year farm’)

Although the labiodental fricative [v] is rare, there is contrast with [bv]:

[ɨ́-bvə̂t] ‘feather’ [ú-və̂t] ‘gun’

3.3.6 Alveolar affricates /ts/, /dz/

These are the commonest of the Weh affricates. They contrast with alveolar stops and fricatives:

[kɨ́-tsáʔ] ‘mud’ [ní-tà] ‘jump’ [fɨ́-sâ] ‘piece’

[ní-dzà] ‘say’ [kɨ́-dà] ‘lamp’ [ní-zà] ‘vomit’

3.3.7 Postalveolar (palatal) affricates /tʃ/, /dʒ/

These affricates are most commonly found before [i], but not exclusively (for more details, see the section on palatalised consonants, 3.7). They contrast with the more frequently occurring /ts/ and /dz/, and with the postalveolar fricatives /ʃ/ and /ʒ/:

[ní-tsì] ‘spy’ [ní-tʃɪ̄] ‘open’ [ní-ʃɪ̄] ‘come out’

[ɨ́-dzɨ̂] ‘rust’ [dʒī] ‘goat’ [kɨ́-ʒɨ̄] ‘weeds’

3.3.8 Velar affricates [kx], [gɣ]

As previously mentioned, these sounds are a special case among the affricates of Weh, and they will be dealt with in section 4.3.3.

3.3.9 Various fricatives

See above (affricates) for details concerning /f/, /v/, /s/, /z/, /ʃ/, /ʒ/. See above (/b/) for details concerning [β].

3.3.10 Velar fricative /ɣ/

This fricative occurs very frequently, certainly much more so than /g/ with which it contrasts:

[kɨ́-ɣə̂w] ‘foot’ [tɨ́-gə̀w] ‘shoes’

[ní-ɣām] ‘bend down’ [ní-gā:mə̄] ‘help’

3.3.11 Nasals /m/, /n/, /ɲ/, /ŋ/

There is almost complete complementary distribution between /ɲ/ and /ŋ/, the former occurring only at C1 and the latter at C2. However, we cannot conclude that they are allophones, because [ŋ] is possible – although rare – in C1: [ní-ŋāʔ] ‘pinch’. /m/ and /n/ occur at C1 and C2. (For more on C2 nasals, see section 3.4.3 below.)

[ní-màj] ‘finish’ [tɨ́-ɲàm] ‘animals’

[kɨ́-nâŋ] ‘cocoyam’ [fɨ-nə̄n] ‘bird’

3.3.12 Lateral /l/

See above (alveolar stops) for contrast with /t/ and /d/.

3.3.13 Approximants /j/, /w/

The phonetic [j] has been found in C1 only in the loan word [fɨ́-jɛ̀lī], ‘earring’, whereas /w/ is quite common:

[wá:] ‘child’ [kɨ́-wáp] ‘bag carried across the chest’

Depending on interpretation, both approximants occur in C2:

[ní-zèj] ‘begin’ [tí-kpàj] ‘balafon’

[kɨ́-ɣə̂w] ‘foot’ [í-ɣâw] ‘wing’

For more details on this, see the section on diphthongs below (4.3.1).

3.3.12 Rhotics

The only r-like sounds in Weh occur in words that are clearly recognised as loan words, and are therefore not truly a part of the basic phonological system:

[tɹéndʒà] ‘stranger, guest’ (from English)

[dùɾù] ‘ox’ (from Fulfulde)

3.4 Phonetic Consonants in C2 position

Before embarking on an examination of more complex consonants, it might be wise to provide a summary of those consonants which occur in C2. Here is the chart of such consonants, reproduced from 3.2.2 above (somewhat simplified, and without the accompanying notes):

3.4.1 Phonetic Consonants found in root-medial/final position (C2)

The chart below shows the consonants that occur in C2 position in the data.

	Bilab	**Alveolar**	**Palatal**	**Velar**	**Lab-velar**	**Glot**
Vl Stops	p	t				ʔ
Vd Stops	b					
Vd Fric	β					
Nasals	m	n		ŋ		
Liquids		l				
Approximants			j		w	

3.4.2 C2 stops

Like Aghem, Weh permits [ʔ] and the nasals [m], [n] and [ŋ] in syllable codas. Unlike Aghem, stops [p] and [t] may also occur in this position:

[ní-fə̄p] ‘blow’ [kāp] ‘armpit’

[ní-bàt] ‘split, tear’ [kɨ́-kɔ̂t] ‘slave’

In utterance-final position, these stops are usually pronounced with no audible release. Preceding vowels are limited to [a], [ɔ] and [ə]. C2 [p] is in complementary distribution with [b] (which occurs before vowels), and in this environment, there may be spirantisation, i.e. [β] instead of [b]. The situation with C2 [t] is somewhat more complicated, as seen above (section 3.3.2).

3.4.3 C2 nasals

Three of Weh’s four nasal consonants can be found in C2 position, [ɲ] being the exception. The others occur both with and without a final V2. The least frequent of the three is [n], which only occurs following [ə]:

[fɨ́-nə̄n] ‘bird’ [í-wɔ́n] ‘week’ [ní-bə̄n] ‘dance’

The velar and bilabial nasals are also found following [a], [ɔ] and [u]. It is the status of [m] that is the most interesting, in the light of the following observations:

- Verbs with a final [m] behave differently to those with final [n] and [ŋ] when the verbal suffix [-lə] is added. With the latter, the final nasal and the [l] of the prefix coalesce to give a lengthened nasal (e.g. [ní-tāŋ] ‘count’, [táŋːə́] ‘report’ (n)). [m]-final verbs lengthen the vowel of the root: [ní-tām] ‘trap’, [táːmə́] ‘trapping’ (see sections 3.5, 4.2.2 and Appendix B for more on long consonants and vowels).

- [m] is found (following /i/) after a number of ‘odd’ sound sequences (which seem to be related). These are dealt with in subsequent sections and summarised in Appendix C, ‘The Odd Sounds of Weh’.

3.4.4 C2 approximants

There is some evidence that the final elements of the sequences [ej], [əw], [aj] and [aw] should be considered as coda consonants. The ‘consonant-like’ semi-vowels [j] and [w] appear lengthened in certain cases:

[ní-kwēj] ‘alter, change’ [ní-kwējːə̄] ‘barter, exchange’

[ní-səw] ‘wash, bathe’ [səwːə̀] ‘watery’ (e.g. consistency of fruit)

[ní-sàj] ‘throw’ [sàjːə̀] ‘throwing’

[ní-dzàw] ‘divide’ [dzàwːə̀] ‘dividing’

The lengthening is most likely due to the addition of the suffix [-lə] (see the following section and Appendix B). Consonant coalescence and lengthening are observed in other cases (e.g. [ŋ] + [-lə] → [ŋ:ə]), and this would also explain what is happening in the above examples.

3.5 Lengthened consonants

This issue was previously alluded to in section 2.3 (suffixes). In addition to the examples of lengthened approximants seen in the previous section, other sonorants are commonly found lengthened:

[ní-tsəŋ:ā] 'frighten' [kɨ́-ndəŋ:ā] 'mask'

[ní-dən:ā] 'pluck' (chicken) [ní-fən:ə̀] 'ferment'

There is strong evidence that this lengthening is brought about by the presence of a final suffix (basic form [-lə]). Consider first of all the following pairs:

[ní-zū] 'buy' [zú:-lə́] 'buying'

[ní-kɔ̄ʔ] 'ascend' [ní-kɔ̄ʔ-lə̄] 'honour'

The [-lə] suffix is found in many other related words, in particular in verb/noun pairs of the type 'buy/buying'. When similar pairs are found with lengthened sonorants, the logical conclusion is that the suffix is also present here (but the [l] of the suffix becomes identical with the C2 consonant, creating a lengthened consonant):

[í-tsɨ́ŋ] 'fear' [ní-tsəŋ:ā] 'frighten'

[ní-sàj] 'throw' [sàj:ə̀] 'throwing'

There are no phonetic combinations of the type [-ŋl-], [-wl-], strengthening our conclusion that these lengthened consonants result from coalescence of a sonorant and the [l] of the [-lə] suffix.

However, the situation is somewhat more complex, as can be seen in Appendix B. Nevertheless, the preceding description does account for the majority of cases of lengthened consonants found in Weh.

3.6 Labialised consonants

3.6.1 Labialised consonants found in the data:

	Bilab	**Lab-dent**	**Alveolar**	**Velar**
Vl Stops			t^w	k^w
Vd Stops	b^w			g^w
Prn Vd Stops				$^ng^w$
Vl Fric		f^w		
Vd Fric			z^w	
Nasals	m^w			

As in many other languages, the set of labialised consonants is restricted, but unlike many other languages, those of Weh do not fall into any natural class. We do note that labialised consonants are restricted to C1 position in Weh, which is common to most GB languages.

3.6.2 Labialisation

Although evidence for other types of secondary articulation is sketchy (see sections 3.7 and 3.8), there is plenty for labialisation in Weh. Our initial inclination was to look for automatic labialisation between a consonant and a following rounded vowel:

[ní-bwɔ̄t] 'hit' [ní-gwɔ̀] 'grind' [í-zwɔ̂t] 'itch'

Other consonants can appear in this environment: [f], [t], [k], [ŋg]. However, there are examples of these same consonants before [ɔ] with no labialisation:

[bɔ̄m] 'calabash' [kí-kɔ̂t] 'slave' [í-tɔ̄ŋ] 'navel'

Thus there is no strict complementary distribution between labialised consonants and their non-labialised counterparts, but there are some co-occurrence restrictions which may repay further study (e.g. consonants can be labialised before [ɔ] and a coda consonant only if that coda C is [t]).

Consonants may be labialised before other vowels, principally [a]. In this case, the consonant is most usually labial:

[mwà] 'arrow' [kí-fwàʔ] 'duty' [í-bwábwà] 'waterfall'

There are some rare exceptions, leaving aside loan words such as [gwava] 'guava':

[ŋgwàʔ] 'young person, age group'

These consonants (labials and [ŋg]) are not automatically labialised before [a]:

[ní-màʔà] 'drop' [kí-fâ] 'ditch' [ní-bā] 'hate'

There are also a handful of words with labialised consonants before the diphthong [ej]:

[ní-bwèj] 'walk' [ní-zwēj] 'peel' [ní-kwēj] 'change'

In this case there is a minimal pair (labialised v non-labialised):

[ní-zwēj] 'peel' [ní-zèj] 'begin'

Labialisation before [u] seems to be extremely rare. So far, only one example has been found, but in this case there is a minimal pair:

[ní-kū] 'put (inside)' [ní-kwū] 'catch' *(cf. also* [ní-kù] *'cook')*

One final comment on labialisation: there is one occurrence of [bw] before the unusual vowel [ɛ:]:

[ní-bwɛ̄:] 'sleep'

This appears to be the pronunciation of the younger generation and is not generally accepted by older speakers: the 'full form' of the word, at least for older speakers, is [ní-bwəlī]. Either way, the word is unusual (with the odd long vowel, or labialisation before [ə]).

As we have seen, labialisation is quite wide-spread in Weh, although no clear generalisations can be made about the series of consonants which can be labialised.

3.7 Palatalised consonants

3.7.1 Palatalised consonants found in the data

	Alveolar	**Velar**
Vl Stops	t^j	k^j
Liquids	l^j	

3.7.2 Palatalisation

When compared to the minimal evidence for potential velarisation (section 3.8), there is more to be said about palatalisation, but the situation is still nowhere near as clear-cut as it is for labialisation. Initial evidence comes from some rare examples of what appear to be non-palatal consonants followed by palatalisation (these four are the only ones in our 'basic' vocabulary):

[kɨ-kjə́] 'baboon' [kɨ-ljə̌m] 'comb (of cockerel)'

[í-tjím] 'liver' [kɨ-tjím] 'calabash'

Were this the only evidence, palatalisation would be as rare as velarisation. However, there are a number of postalveolar/palatal consonants, especially [ʃ], [ʒ], [tʃ] and [dʒ], occurring in a much larger group of words, that need to be considered here.

Before we do so, we should note that there appear to be no restrictions on the vowels that can follow /ɲ/:

[fɨ̌-ɲí] 'knife' [ɲéj] 'bitter' [fɨ̌-ɲáʔ] 'egg-plant'

[í-ɲɔ̂ʔ] 'burn' (N) [kɨ́-ɲóʔ] 'smoke' [í-ɲûŋ] 'hair'

In the case of the other palatal consonants mentioned above, distribution is much more restricted.

The voiceless fricative [ʃ] is rare: [ní-ʃī] 'come out' is the only root so far discovered, although it recurs in several compounds such as [ní-nèj-ʃī] 'take out' ([nínèj] = 'take'). The following shows [ʃ] before a vowel other than [i]: nevertheless, it is in all likelihood related to the aforementioned simple root because of its semantic closeness:

[ní-ʃə̄ː-lə̄] 'take away, remove'

Its voiced counterpart [ʒ] is somewhat less rare, and most occurrences are also before [i]:

[kɨ́-ʒɨ́ː] ‘weeds’ [fɨ-ʒikɔm] ‘small beetle’[1]

Similarly, the affricates [tʃ] and [dʒ] seem to ‘prefer’ being followed by [i]:

[ní-tʃĩ] ‘open’, ‘take care of s.o.’ [ndʒì] ‘sheep’

However, there are rare occurrences of [ʒ], [tʃ] and [dʒ] before other vowels:

[í-ʒɔ́lə̀] ‘shady place’ [ní-ʒɔ̀t] ‘itch’[2]

[ú-tʃɔ̃t] ‘trouble’ [kɨ́-tʃɨ̃ŋə̀] ‘grinding stone’ [fɨ́-tʃɔ̃ndʒì] ‘groundnut’

[ndʒàŋgà] ‘shrimp’[3]

In addition, there are rare occurrences of the corresponding alveolar fricatives [s], [z] and affricates [ts], [dz] before [i] in roots, which results in some minimal (or close) pairs:

[ní-sī] ‘urinate’ [ní-ʃĩ] ‘come out’

[ní-tsì] ‘spy’ [ní-tʃĩ] ‘open’, ‘take care of s.o.’

[ṇ́-ndzî] ‘urine’ [ndʒì] ‘sheep’

These facts taken together lead us to say that despite a strong tendency towards complementary distribution (palatals before [i], alveolars elsewhere), it is not (or no longer) absolute. It is likely that at an earlier stage of the language, palatalisation accounted for all the occurrences of [ʃ], [ʒ], [tʃ] and [dʒ]. However, they must now be treated as separate phonological units (with a leftover tendency of occurring before high vowels).

3.7.3 A special kind of palatalisation?

There is one other specific (i.e. highly restricted) context in which the Weh palatal consonants occur, that is in syllables with coda [m], such as:

[kɨ́-ɲɪ́ᵊm] ‘tongue’ [ní-tʃĩᵊm] ‘drip’ [í-ʒɪ́ᵊm] ‘dream’

There are a number of interesting things to note here. To begin with, [m] is the only coda consonant found with palatal obstruents in C1: in addition, this is the only vowel in such combinations. (The vowel symbolised as [ɪᵊ] will be discussed in more detail in the section on front vowels, 4.1.1.)

From a phonological point of view, these words are best thought of as /kɨ-ɲim/ ‘tongue’, /ni-tʃim/ ‘drip’ and /i-ʒim/ ‘dream’. However, we do need to take note of the restrictions on distribution mentioned above: we can also think of the sequence palatal C + [ɪᵊ] + [m] as a series of consecutive consonants and vowel (i.e. CVC) where the options for distribution for each element are extremely limited (the only possibility of variation comes in the quality of the initial

[1] Tone unknown.
[2] NB: There is an alternative pronunciation for these two words: [ízwɔ́lə̀] & [nízwɔ̀t]. This does not appear to be a regular correspondence (i.e. between a palatal C and an alveolar plus labialisation).
[3] NB: This may also be pronounced [ndzàŋgà].

palatal consonant). The options are so limited that such a series of three phonetic sounds could be seen to be some kind of invariable or frozen chunk of language.

There are, as we shall see, other such highly restricted 'chunks' in Weh. It is worth noting in this context that the coda [m] which occurs here is also present in most of the other examples of palatalisation given above (i.e. [kɨ́-ljə̌m] 'comb (of cockerel)', [í-tjím] 'liver' and [kɨ́-tjím] 'calabash'). These will all be considered further, along with a number of other restricted consonant and vowel sequences, in Appendix C.

As a final comment on the subject of palatalisation, there is just one item that does not fit into the discussion above, and that is [kɨ́-kjɔ́] 'baboon'. This is the only example found so far of a palatalised consonant in an open syllable: when compared to the situation in other Grassfields Bantu languages (where palatalisation is so much more prevalent), we are left to wonder at its rarity in Weh. (NB: The Aghem cognate for this word is [kɨ̀-kɨa] 'kind of monkey': as we have seen, [kɨa] words in Aghem usually have [kxə] cognates in Weh, e.g. [í-kxɔ́] 'headpad' ~ (Aghem) [é-kɨ́a].)

3.8 Velarisation

As we have just seen, the question of secondary articulation in Weh (other than labialisation) is not straightforward. The following three words present us with something that looks initially like velarisation:

[kɨ́-bɣû̂m] 'musical instrument' [ní-bɣūm] 'hunt' [tɨ́-fɣūm] 'gossip' (N)

There is clearly some kind of 'velar fricative element' associated with the labial consonants [b] and [f], but such words are rare (only three found so far). The velar element is not there in the second of the following two words, providing a clear contrast:

[tɨ́-fɣūm] 'gossip' (N) [kɨ́-fúm] 'cockroach'

We hesitate to introduce another secondary articulation (i.e. velarisation) on the basis of such scanty evidence. There is some lip-rounding accompanying the pronunciation of the consonants [b] and [f] in our three examples above, but this is likely to be the effect of the following rounded [u] vowel, rather than some kind of labialisation. (In addition, the velar element is very prominent in these cases (quite unlike the pronunciation of labialised [f] and [b] in words such as [kɨ́fwàʔ] 'duty' and [íbwábwà] 'waterfall'), so we can dismiss the idea that this is a form of labialisation.)

An alternative solution would be to view the [ɣum] sequence as a compressed version of something like /CuɣuC/, the central element being what some consider a 'velarised diphthong'. There is more on this in the relevant section (4.3.4). Be that as it may, the question still remains: in what way (if any) does velarisation form part of the phonology of Weh? As we have seen here (and elsewhere), the answer to this is not straightforward. One intriguing detail is that, as in the case of a number of examples in the preceding section (palatalisation), each of the three examples here has a coda [m]. The rare Weh words with the [ɣum] sequence are discussed further in Appendix C.

3.9 Nasal Consonant Sequences

3.9.1 Syllabic Nasal Consonants /N-/

Syllabic nasals consonants found in the data: [ŋm̩ m̩ ɱ̩ n̩ ɲ̩ ŋ̩]

These all represent the noun class prefix for class 6a: this is the plural prefix that most usually accompanies singular class 19, and is also the usual prefix for liquids and other 'uncountables':

[fɨ̃-kwɔ̂] 'whip' [ŋ̍-kwɔ̂] 'whips'

[ɱ̍-fûŋ] 'flour' [n̍-tíɣə̀] 'saliva'

The syllabic nasal prefix /N-/ assimilates to the place of articulation of the initial consonant of the following root.

3.9.2 Prenasalised Consonants

Prenasalised consonants found in the data:

ⁿgb ᵐbv ⁿdz ⁿdʒ ᵑgɣ ᵑgʷ ᵐb ⁿd ᵑg

There is a difficulty in Weh (as in many other languages) in moving from the phonetic (consonants which are preceded by some kind of nasal element) to the phonological: does the nasal element represent a separate syllable, or is it prenasalisation of the consonant… or indeed both? On what basis can we make such distinctions? In this section, we will examine the 'clues' that Weh offers, and discover along the way that all three possibilities exist in the language (i.e. prenasalised consonants, consonants preceded by syllabic nasals, and prenasalised consonants preceded by syllabic nasals).

We will begin with the straightforward cases, and proceed to those which are less clear. In many cases, it is easy to identify nouns which belong to noun class 6a: in citation form, the syllabic nasal prefix is present, but this prefix drops (as do all prefixes) in certain contexts, as illustrated in the following two examples. Note that even though the prefix is missing, the class affiliation is indicated by the initial consonant of the possessive word:

class 6a: [ɱ̍-fûŋ] 'flour' [fuŋ muŋ] 'my flour'

class 7: [kɨ́-mwáʔ] 'cockerel' [mwaʔ kuŋ] 'my cockerel'

Another class 6a noun is [n̍-tsôʔ] 'salt', and 'my salt' is [tsoʔ muŋ]: this means that, like [ɱ̍-fûŋ] 'flour', the initial consonant of the root is clearly not prenasalised. In fact, all 6a nouns whose roots begin with a voiceless obstruent conform to this pattern (i.e. there is no initial nasal element in a possessive phrase). Nouns with root-initial [l] behave similarly: [n̍-lɨ̂] 'drink', [lɨ muŋ] 'my drink'.

This same 'test' can be used with other class 6a nouns: those with simple root-initial consonants will have no nasal element in a possessive phrase:

[ɱ̍-báʔá] 'string' [baʔa muŋ] 'my string'

Those with prenasalised root-initial consonants will keep an initial nasal onset in possessive phrases:

[m̩-mbvɨ́] ‘oil’ [mbvɨ muŋ] ‘my oil’

As the list at the beginning of this section shows, the only consonants which can be prenasalised are voiced obstruents: they are the stops /ᵐb ⁿd ᵑg ᵑgb/ and the affricates /ᵐbv ⁿdz ⁿdʒ/. In the case of the prenasalised consonant sequence [ᵑgɣ], we will see in section 4.3.3 that this is not an underlying prenasalised affricate: a word such as [ŋgɣə̀] ‘shelf’ is phonologically /ᵑgɨɣɨ/, i.e. the sound in question here is the prenasalised velar stop /ᵑg/.

Armed with this information, the prenasalised consonants of other classes are clearer. There are several class 9 nouns with an initial prenasalised consonant: the nasal element in these cases is not as long as a syllabic nasal would be. The prenasalised consonant is also present in the corresponding plurals (class 13):

[mbàŋ] ~ [tɨ́-mbàŋ] ‘cane(s)’ [ndɔ̄ŋ] ~ [tɨ́-ndɔ̄ŋ] ‘sweet potato(es)’

Note that the possessive forms in these two cases have an initial nasal element:

[mbaŋ zuŋ] ‘my cane’ [ndɔŋ zuŋ] ‘my sweet potato’

Finally, we need to take account of some cases where there is a prenasalised consonant in the plural, but not in the singular:

[bō ʔ] ‘bow’ (hunting) [tɨ́-mbō ʔ] ‘bows’

Such examples are rare (two in our whole database), and at this stage they can only be treated as exceptions.

3.10 Consonant phoneme chart

	Bilab	**Lab-dent**	**Alveolar**	**Postalv**	**Palatal**	**Velar**	**Lab-velar**
Vl Stops			t			k	kp
Vd Stops	b		d			g	gb
Prn Vd Stops	ᵐb		ⁿd			ᵑg	ᵑgb
Vl Affric		pf	ts	tʃ			
Vd Affric		bv	dz	dʒ			
Prn Vd Affric		ᵐbv	ⁿdz	ⁿdʒ			
Vl Fric		f	s	ʃ			
Vd Fric		v	z	ʒ		ɣ	
Nasals	m		n		ɲ	ŋ	
Liquids			l				
Approximants					j		w

Notes:

1) Labialised, palatalised and velarised phonemes do not appear in this chart.
2) There is a syllabic nasal archiphoneme /Ṇ/ (noun class 6a prefix), which assimilates to the point of articulation of the following consonant. We treat that very special consonant as a syllable and not as a simple consonant.

4. Vowels

4.1 Phonetic vowel chart

	Front	**Central**	**Back**
Close	i	ɨ	u
centralised	ɪ[1]		ʊ[1]
Close-mid	e	ə	o
Open-mid	(ɛ)[2]		ɔ
Open		a	

Notes:

1) The centralised close vowels [ɪ] and [ʊ] can occur as realisations of /i/ and /u/ in closed syllables, and also in the case of [ɪ], as the final vowel in CVCV roots (e.g. [ígúmī] 'bedbug').
2) The case of [ɛ] is an odd one, and more details are provided below.

4.1.1 Front vowels: high /i/

The other front vowel, mid /e/, is somewhat unusual, and will be dealt with (along with /o/) in section 4.1.4 below.

As mentioned above, the high front vowel /i/ has a centralised allophone [ɪ] in CVC roots and as (unstressed) V2. It appears to be somewhat lowered in CV roots following velars, and have a slightly diphthongal onset following labial-velars:

[kɨ́-ŋgi̯] 'owl' [kɨ́-kpᵊí] 'arm'

It is the noun class prefix for classes 4 and 5:

[í-kɔ́ʔ] 'beds' (4) [í-sɨ́] 'eye' (5)

There is another allophone, [ɪᵊ], which occurs in the highly restricted environment between palatal consonants and [m]:

[kɨ́-ɲíᵊm] 'tongue' [ní-tʃĭᵊm] 'drip' [í-ʒíᵊm] 'dream'

The vowel is somewhat unusual in that it does not sound like a 'simple' sequence of [i] plus [m]. Firstly, the vowel is somewhat centralised, and then it is as if the final [m] has a central-vowel-like quality associated with it.

With the exception of these words and one or two others such as [í-tjím] ‘liver’, /i/ only appears in open syllables.

4.1.2 Central vowels: high /ɨ/, low /a/

Although there is no evidence for a rounded central vowel comparable to the Aghem [ʉ], it is clear from the following examples that there is more than one non-low central phonetic vowel in Weh:

[í-sɨ́] ‘eye’ [í-zə́t] ‘name’ [í-tsɨ́ɣə́] ‘fish’

(The case of words such as [í-tsɨ́ɣə́] ‘fish’ is a special one, and is dealt with in section 4.3.2.) Taking these and the following words into account, an initial case could be made for complementary distribution, with [ə] occurring in certain environments, and [ɨ] in others:

[dzɨ̀ŋ] ‘cricket’ [kɨ́-ləm] ‘darkness’

[ɨ] occurs in CV syllables, whereas both may occur in closed syllables: usually, it is the more open of the two, especially with a final [m] it seems, but the sound in syllables closed by [ŋ] is closer. In CVCV structures, it is the schwa sound which occurs (a case of an ‘echo vowel’):

[ní-tsələ̄] ‘bury’

Low /a/ is the noun class prefix for class 2, e.g. [á-fɨ́] ‘friends’ (nc 2). It occurs in both open syllables (e.g. [kɨ́-ná] ‘rock’) and closed syllables, but as V2 only as an echo vowel. All possible coda consonants can follow /a/ with the exception of [n].

4.1.3 Back vowels: high /u/, low /ɔ/

We note first of all that the third back vowel, mid /o/, forms a three-way contrast with /u/ and /ɔ/ in syllables closed by a glottal stop:

[kɨ́-zɔ̀ʔ] ‘phlegm’ [kɨ́-zôʔ] ‘mushroom’ [kɨ́-zúʔ] ‘smell’

[ní-tsɔ̄ʔ] ‘undress’ [ní-tsōʔ] ‘laugh’ [ní-tsūʔ] ‘pound’

In addition, all three are also found as V2 as echo vowels:

[tɨ́-mɔ́ʔɔ́] ‘dew’ [ní-sòʔò] ‘carry’ (child on back) [fɨ́-mbùʔū] ‘bile’

The situation with /o/ is somewhat unusual, and it will be considered further (along with /e/) in the following section.

As for the remaining two back vowels, we note that /u/ is the prefix for noun classes 3 and 8: [ú-kɔ́ʔ] ‘bed’ (nc 3), [ú-kûm] ‘cutlasses’ (nc 8). Both /u/ and /ɔ/ occur in CV roots, e.g. [kɨ́-wɔ́] ‘hand’, [í-dzú] ‘mouth’, and in CVC roots. Coda consonants following /u/ are [m], [ŋ] and [ʔ], whereas /ɔ/ can be followed by these three consonants and also by [p] and [t]:

[ní-nūm] ‘bite’ [m̩-fûŋ] ‘flour’ [kɨ́-kûʔ] ‘small of back’

[bɔ̄m] ‘calabash’ [fɨ̂-bwɔ̄t] ‘cat’ [kɨ́-kɔ̂t] ‘slave’

4.1.4 Mid vowels /e/, /o/

The two Weh mid vowels are somewhat unusual in their distribution. We begin with the fact that /e/ has no simple [e] allophone: the phonetic sound [e] is always accompanied by a close vowel off-glide (here symbolised as [j]):

[ú-téj] ‘medicine’ [ní-kpèj] ‘harvest corn’ [wéj] ‘wife’

(This vowel sound occurs in many Weh names, and people have normally written it, using the English orthography, as <ei>: e.g. ‘Asei’, ‘Mei’ etc.) At this point, we note a certain symmetry with a back vowel diphthong, which has a realisation that can be symbolised as [əw] (written by Weh people as <ou>, as in the name ‘Mou’). One possible interpretation is that the phonetic diphthongs [ej] and [əw] are realisations of /e/ and /o/, but there is compelling evidence for considering the final approximants in both cases as consonants (see the discussion of diphthongs below).

When it comes to [ɛ], there are only a handful of words which appear to contain this sound, and one or two of them are obviously loan words:

[kɨ́-mɛ́lí] ‘milk’ [bíɛ̄] ‘avocado’ (from Eng. ‘pear’)

The following word is excluded from the category of monomorphemic ‘basic vocabulary’ (by its syllable structure and overall tonal melody):

[kɨ́-kjɛ̀nâŋ] ‘toad’

(One might reasonably expect to find words with [ɛ] in a language called ‘Weh’ [wɛ]... but the self-name is actually [kɨ́-wí], the pronunciation with [ɛ] presumably having been introduced by the earliest colonial settlers.)

By positing a phoneme /e/, with allophones [e] and [ɛ] and noting their restricted distribution ([e] always followed by /j/, otherwise [ɛ] in a limited number of words), we can account for all of the examples we have found so far.

This consideration also provides a quite neat parallel with the situation of /o/. We note, firstly, that almost *all* occurrences of [o] are to be found next to [ʔ]:

[ní-bòʔò] ‘carry on head’ [kɨ́-nóʔlə́] ‘hump (of hunchback)’

The one exception to this that we have found so far is the word [lógɔ̄] ‘cassava’.

At the same time, the commonly occurring diphthong [əw], which is phonetically close to [o], never appears next to [ʔ]. Although the two sounds are thus in complementary distribution, we do not to consider [əw] as an allophone of /o/. Our preferred interpretation of [əw] is as a realisation of /o/ plus a coda /w/: in this way, [əw] parallels [ej], interpreted above as /e/ plus a coda /j/. For more on this, see the section on diphthongs below.

4.2 Phonetic vowel length

4.2.1 Examples of phonetically long vowels in the data

The following inventory of phonetically long vowels occurs in the data:

	Front	Central	Back
Close	iː		uː
Close-mid		əː	oː
Open-mid	ɛː		ɔː
Open		aː	

Note that the centralised vowel allophones [ɪ] and [ʊ] do not occur lengthened. Long [əː] and [ɛː] occur rather than [iː] and [eː]: these cases are dealt with below.

4.2.2 Lengthened vowels

Although there are lexically short and long vowels in Weh, this is not a contrast that is greatly exploited: as in Aghem, long vowels are much less frequent. This fact prompted Hyman to write (of Aghem): "In a few cases minimal (or near minimal) pairs can be cited, indicating the *potentially* lexical function of the vowel length contrast in the language" (p6, my emphasis), and the same can be said for Weh.

Vowels of various qualities can be lengthened:

[wáː] 'child' [tí-ndzǒː] 'intestines' [dzùː] 'river'

and as has been mentioned, there are a few minimal (or near minimal) pairs:

[dʒī] 'goat' [dʒǐː] 'path'

[í-dzú] 'mouth' [dzùː] 'river'

[á-ɣî] 'tribe, people' [á-ɣóː] 'words, things'

In the final pair of examples, it is the more open of the central vowel allophones that appears in the lengthened form (see section 4.1.2). These same two allophones are also seen in related words, where one is short and the other lengthened:

[ídzɨ́] 'dirty' [ŋgíː dzəːː] 'dirtier'

[ní-zɪ̄] 'eat' [zə́ː] 'eating'

Both long [oː] and [ɛː] are quite rare. For the former, we have found only two examples thus far: [ní-gbòː] 'cut', [kɨ́-gbòː] 'match, flint'. Long [ɛː] does not have a short [ɛ] counterpart except for a few exceptions (see section 4.1.1). It is found mainly in question words:

[áɣɛ́ː] 'where' [kɨkɛ̂ː] 'what' [ndɛ́ː] 'who'

and it also occurs as an alternative pronunciation among the younger generation of words of a particular form:

[ní-zəlī]	'spend the day'	(short form [ní-zɛ̄ː])
[ní-kəlī]	'hold', 'know'	(short form [ní-kɛ̄ː])
[ní-bwəlī]	'spend the night'	(short form [ní-bwɛ̄ː])
[m̀-fə́lí]	'excrement'	(short form [m̀-fɛ́ː]

Long [ɛː] is the natural counterpart to short /e/. Therefore, the phonetically long vowels shown in the chart above have the following underlying representations:

/iː/	[iː]
/eː/	[ɛː]
/aː/	[aː]
/ɨː/	[əː]
/uː/	[uː]
/oː/	[oː]
/ɔː/	[ɔː]

4.2.3 Vowel lengthening with the suffix [-lə]

There is another resemblance between Weh and Aghem in that "long vowels frequently result from the juxtaposition of various words and grammatical markers in context" (Hyman, p7). We have already seen examples of verbs with CV roots which show a lengthening of the vowel when the suffix [-lə] is added:

[ní-sī] 'urinate' [síːlə́] 'urinating'

[ní-zū] 'buy' [zúːlə́] 'buying'

4.2.4 Vowel lengthening with comparatives

One common way comparatives are formed is by the addition of a final vowel:

[lɨ́ŋ] 'black' [ŋgíː lɨ̄ŋ-ə̄] 'blacker'

When the adjective in question has a final vowel, the resultant comparative form shows lengthening:

[lú] 'full' [ŋgíː lūː] 'fuller'

[íbú] 'weak' [ŋgíː būː] 'weaker'

[ídzɨ́] 'dirty' [ŋgíː dzə̄ː] 'dirtier'

(Note once again the allophonic change in the last pair.)

4.2.5 Vowel lengthening with compounds and associative constructions

When two nouns come together in an associative construction, various changes take place. One is that the first noun (N1) 'loses' its class prefix, and is instead followed by an associative marker which varies according to the noun class of N1. This associative marker is often a vowel, and if N1 has a final vowel, or the N2 prefix is a vowel (or both), then there is a great deal of coalescence between the two nouns. This process is not fully understood as yet, but one result is without doubt vowel lengthening:

[sə: kxɨm] 'cowry shells' (from [á-sɨ́] 'eyes' & [í-kxɨ́m] 'crab', lit. 'eyes of crab')

[bvət ta: sɨ] 'eyelashes' (from [tɨ́-bvə̂t] 'feathers' & [á-sɨ́] 'eyes', lit. 'feathers of eyes')

Vowel coalescence in Weh (covered further in section 5.1) is complex: more study is needed to understand the surface realisations of all possible vowel combinations in a variety of contexts.

4.3 Diphthongs

4.3.1 Diphthongs or VC?

Leaving aside the issue of 'velarised diphthongs' (see immediately below), Weh has four phonetic diphthongs, symbolised as follows (and with examples showing various contrasts):

[ej]:	[ú-kpɛ̋j] 'boundary'	[ní-zèj] 'begin'
[aj]:	[tí-kpàj] 'balafon'	[ní-zàj] 'breathe'
[əw]:	[kɨ́-ɣə̂w] 'foot'	[ní-ndə̀w] 'go'
[aw]:	[í-ɣâw] 'wing'	[ndāw] 'house'

The first of these, [ej], is realised rather like [ɔj] following a labialised labial consonant: [ú-mwɔ̂j] 'neck', [kɨ́-fwɔ́j] 'puff-adder'.

The diphthongs [ej] and [əw] have been discussed in sections 4.1.1 and 4.1.3 (front and back vowels), where it is shown that it is possible to consider them as realisations of /e/ and /o/. However, when considered together with [aw] and [aj], there are other possible interpretations, one of which would be that these represent four unitary diphthongs which could be symbolised /e^{i}/, /a^{i}/, /ə^{u}/ and /a^{u}/. This would however greatly complicate the vowel inventory, and there is evidence (presented elsewhere, section 3.5) that the final elements of these sounds function as consonants. We will thus consider these four phonetic diphthongs as consisting of vowels with a final approximant consonant, as follows:

[ej]:	[ú-kpɛ̋j] 'boundary'	/ú-kpɛ̋j/
[aj]:	[tí-kpàj] 'balafon'	/tí-kpàj/
[əw]:	[kɨ́-ɣə̂w] 'foot'	/kɨ́-ɣô w/
[aw]:	[í-ɣâw] 'wing'	/í-ɣâw/

4.3.2 'Velarised diphthongs'

This rather odd-sounding term is used by Hyman to refer to the [ɨɣa] sequence in Aghem words such as [é-tsɨ́ɣá] 'fish': the corresponding Weh word is [í-tsɨ́ɣə́], and there are many similar

cognates, e.g. Weh [bɨɣə] ~ Aghem [bɨɣà] ‘two’. However, the phonological situation is not exactly the same in both languages, and this needs some investigating.

To begin with, Hyman does not posit 2-syllable roots for Aghem (his maximum root form is CVVC). This may have been one thing that led him to consider [ɨɣa] as a kind of diphthong. There is strong additional evidence: Hyman shows that the ‘plain’ diphthong [ɨa] and [ɨɣa] are in complementary distribution, as follows (NB: I use [ɣ] where Hyman has <gh>):

“The plain diphthong ɨa occurs only after velars; cf. é-kɨa ‘headpad’, ŋ́-ɣîa ‘excrement’. It occurs exceptionally after dz [in one word]... After all consonants except velars, the corresponding velarised diphthong ɨɣa occurs instead, e.g. bɨɣà ‘two’, ń-tɨ́ɣà ‘saliva’...” (p8).

There are further alternations in Aghem (due to the rounding effect of rounded vowel prefixes and the nasalising effect of stem-initial Cs):

[ó-nûa] ‘belly’ ~ [ń-nɨ́ŋà] ‘bellies’ (i.e. after N)
[ó-kúa] ‘money’ ~ [ŋ́-kɨa] ‘monies’ (i.e. after VELAR C)
[ó-lúa] ‘fat’ ~ [ń-lɨ́ɣà] ‘bridges’ (NB: two different roots here)

Weh cognates invariably have [ɨɣə]: the following examples illustrate that Weh has no rounding and nasalisation where these would occur in Aghem:

[ú-nɨ́ɣə̀] ‘stomach’ [í-nɨ́ɣə̄] ‘time, season’

Thus the phonological situation in Weh is somewhat different from that found in Aghem: for various reasons, Hyman’s ‘velarised diphthong’, although applicable in Aghem, does not seem to be the appropriate term for Weh. Whatever the historical situation may be, from a synchronic point of view, the most likely interpretation of Weh words such as [bɨɣə̀] ‘two’ is /bɨɣɨ/. This introduces /ɣ/ as a C2 consonant in a very limited context: in fact, given the extreme limitations of occurrence for the individual elements here, it seems as if the sequence [ɨɣə] is another of those frozen ‘chunks’ of language (such as we saw in section 3.7.3 above).

4.3.3 Velar affricates

There are in Weh (unlike Aghem) words such as [ŋ́-kxə́] ‘beer’ and [gɣə̀gɣə̄] ‘spider’ with phonetic velar affricates. It is likely that these are a realisation of [ɨɣə] following velar stops, as [ɨɣə] never occurs after velar stops. An examination of Weh and Aghem cognates offers strong support for this suggestion:

Weh	Aghem
í-kxə́ ‘headpad’	é-kɨa ‘headpad’
ú-kxə́ ‘money’	o-kúa ‘money’
ŋ́-kxə́ ‘beer’	ŋ́-kɨa ‘beer’
ŋgɣə̀ ‘shelf’	ŋgɨa ‘shelf’

The Aghem words all contain vowel sequences which elsewhere correspond to [ɨɣə] in Weh. Therefore we conclude that when underlying /ɨɣɨ/ follows velar stops, the whole sequence is realised as a velar affricate followed by schwa, either [kxə] or [gɣə].

The sequence /ɨɣɨ/ can occur with a final consonant, a fact which distinguishes Weh from Aghem, and indeed the vast majority of GB languages where such sequences never occur before a final consonant (Stephen Anderson, personal communication). Consider the following:

[í-kxɨm] 'crab' [ní-bīɣīm] 'accept, agree'

We note that the only final consonant found in this environment is [m] (which brings to mind the cases of palatalisation and velarisation above). We will look further into this and other rather 'odd' cases elsewhere (Appendix C).

4.3.4 Other 'velarised diphthongs'?

Hyman recognises two more 'velarised diphthongs' in Aghem, [uɣɔ] and [uɣo]: the former is rare, whereas the latter is quite common. Given that the following Weh words contain a sound which is phonetically similar to [uɣo], we might feel that there are grounds for positing another 'velarised diphthong' in Weh:

[tɨ́-fɣūm] 'gossip' [kɨ́-bɣû̂m] 'harp' [ní-bɣūm] 'hunt'

The rarity of such words (only three found so far) is one thing that argues against this. We cannot fail to note the 'suspicious' final [m] once again, and these words will also be considered in Appendix C.

4.4 Vowel phoneme chart

	Front	**Central**	**Back**
High	i	ɨ	u
Mid	e		o
Low		a	ɔ

All may be lengthened (NB: /e:/ = [ɛ:] and /ɨ:/ = [ə:]).

5. Morphophonemic alternations

This brief summary of phenomena mentioned elsewhere will serve as an indication of areas where further research is needed. This current document is essentially a report on the segmental phonology of Weh: more work is required to understand the interaction of words in context.

5.1 Vowel coalescence

As was mentioned in the section on vowel length, compounds and associative noun constructions are a rich source of vowel coalescence. The basic structure for both is 'N1 of N2' (e.g. [si: kxɨm] 'cowry', lit. 'eye of crab' from [í-sɨ́] 'eye' and [í-kxɨ́m] 'crab'). This is one example of what happens between the two nouns: N1 appears without its class prefix, but followed by an associative marker which is class-specific (and is sometimes a vowel). If the N1 root ends in a vowel, if the associative marker is a vowel or if the N2 class prefix is a vowel, or various combinations of these options, there is plenty of scope for vowel coalescence, as below:

[ɲɪm ku: vət] 'flame' (from [kɨ́-ɲím] 'tongue' & [ú-və̂t] 'fire')

[ŋgɣə ta: sɨ] ‘eyebrows’ (from [tɨ́-ŋgɣə̀] ‘shelves’ & [á-sɨ́] ‘eyes’)

[sə: kɨkɔt] ‘the slave’s eyes’ (from [á-sɨ́] ‘eyes’ & [kɨ́kɔ̂t] ‘slave’)

[təw u:kɔt] ‘the slaves’ heads’ (from [útə́w] ‘heads’ & [úkɔ̂t] ‘slaves’)

To cover all of the logical possibilities, it would be necessary to choose N1s with final vowels of all kinds, and both N1s and N2s of all classes. Even then, there may be no immediately logical explanation for all observed variations, such as:

[mwaʔ ka: zɨ] ‘butterfly’ (from [kɨ́mwáʔ] ‘cockerel’ & [kɨ́zɨ̀] ‘God’)

[num ta: wɔ] ‘thumbs’ (from [núm/ánúm] ‘husband(s)’ & [kɨ́wɔ́/áwɔ́] ‘hand(s)’)

As can be seen, much more needs to be done in this area. It would surely be a fruitful area for a thesis or dissertation for an advanced degree in linguistics.

5.2 Consonant alternation

In the discussion of alveolar stops (section 3.3.2), it was shown that the relationship of [t] to [d] is not the same as that of [p] to [b]. In the latter case there is simple complementary distribution, with [p] word-finally and [b] elsewhere. Word-final [t] sometimes relates to [d], e.g. [dət] ‘heavy’, [ŋgí: dəd-ə̀] 'heavier'), but there are also instances where [t] relates to [l]:

[í-zə́t] ‘name’ [zəli wa:] ‘naming ceremony’ (NB: [wá:] is ‘child’)

[úɣə̀t] ‘nails’ [ɣəla: wɔ] ‘fingernails’ (NB: [kɨ́-wɔ́/á-wɔ́] ‘hand(s)’)

To make matters more complicated, /t/, /d/ and /l/ are all independent phonemes.

Other cases of consonant alternation may well come to light with further study of words in context.

6. Tone

6.1 Minimal Tone Pairs

A list of all minimal tone pairs found in the data is found in Appendix A.

6.2 Lexical tone of Nouns

(NB: What is said below applies to basic noun words and not simply their roots, i.e. excluding prefix tone but including suffix tone. Percentages are approximate, and tone marks indicate surface tone.)

The citation forms of nouns in Weh show a good deal of complexity (much more than those of verbs). Prefixes of all noun classes are high in all but a few cases (5 of 458 basic nouns have low tone, 4 of which are, like ‘banana’, from gender 19/6a):

[fɨ̂-mbúʔ] ‘banana’ [fɨ̂-tə́m] ‘jigger’ [ì-sɨ́ŋə̀] ‘truth’

In such cases, the corresponding plural forms will also have low prefixes:

[fɨ̀-mbúʔ] ‘banana’ [m̀̀-mbúʔ] ‘bananas’

This pair also illustrates the most commonly occurring pattern whereby roots show the same melody in both singular and plural forms. However, there is a small number of sg/pl pairs where this is not the case, where an L singular has HL in the plural:

[dzù] / [tɨ́-dzû] ‘river(s)’ [ɣə̀w] / [ú-ɣə̂w] ‘shell’ (groundnut)

The most common melodies for nouns (excluding prefix tone) are as follows:

H: 39%
HL: 22 %
L: 19%

These three melodies account for 4 out of every 5 of the nouns in our database. They may be found on 1-syllable or 2-syllable noun roots:

[núm] ‘husband’ [kɨ́-fúm] ‘cockroach’ [í-bɔ́ŋɔ́] ‘reed’

[dzû:] ‘river’ [í-ɲûŋ] ‘hair’ [kɨ́-ɣálà] ‘weaver bird’

[sɔ̀ʔ] ‘bottle’ [kɨ́-fɨ̀] ‘dove’ [kɨ́-sàʔì] ‘comb’

Utterance-final Ls, especially those where there is a final vowel or sonorant consonant, are frequently realised as low-falling.

There is considerable evidence of a tone between H and L, which (following the example of Hyman et al) we are considering as a downstepped H. A relatively small number of nouns (8%) have a falling melody different from HL (the end-point being higher): the melody in this case is H!H (high followed by downstepped high):

[í-ɣā̃ŋ] ‘vein’ [kɨ́-bā̃ŋ] ‘palm nut’ [kɨ́-túŋə̄] ‘ear’

The two different falling tones (HL and H!H) are clearly distinguished in the following minimal pair:

[í-fə̃w] ‘leaf’ [í-fə̂w] ‘leak’

A similar number of nouns from gender 9/13 (c. 8%) appear to have downstepped high as their melody. In citation form, it is in the plural where this shows up most clearly (class 9 having no prefix):

[tɨ́-dʒī] ‘goats’ [tɨ́-fūŋ] ‘buffalos’ [tɨ́-mbām] ‘spitting cobras’

There are no H-H class 13 plurals from gender 9/13 (with the exception of [lámí/tílámí] 'lemon(s)', a loan word from English). What is interesting, however, is that the majority of class 13 plurals from gender 5/13 do not show the same downstepping effect:

(sg) [í-sám] 'stone, pit' (pl) [tɨ́-sám] 'stones, pits'

Therefore, the downstep noted in 9/13 plurals must 'belong' to the root and not the prefix, and is characteristic of the 9/13 gender. This gives rise to the following minimal tone pair:

(9/13) [tí-fə̄p] 'co-wives' (5/13) [tɨ́-fə́p] 'billy-goats'

In addition, there is a small number of nouns (c.5) from genders other than 9/13 which also appear to have downstepped H as their melody:

[kɨ́-ŋmgbāŋ] 'red pepper' (cl 7) [ú-tām] 'granary' (cl 3)

Rising tone melodies do occur on noun roots, but they are rare (9 items, i.e. c. 2%). Most (but not all) of these are noun roots with a long vowel or two syllables:

[kɨ́-tsə̌w] 'grasshopper' [kí-fə̌ː] 'hut' [fɨ́-mbùʔū] 'bile'

In summary, we have discovered 6 contrastive tonal melodies on Weh noun roots: High, High-Low falling, Low, Lowered High, High-Lowered High falling, and Low-Lowered High rising. The first three of these are by far the most common.

6.3 Lexical tone of Verbs

Grassfields Bantu languages are famous for the complexity of their tone sandhi, and so there is surely far more to be learned about the tonal behaviour of Weh verbs, but at this stage of our investigation, the citation forms of verbs reveal just a two-way lexical contrast between H and L roots. After the verbal prefix [ní-], the H roots are all downstepped:

[ní-bɔ̄m] 'build' [ní-fə̄p] 'blow' [ní-ɲāʔā] 'kneel'

The contrast between H and L tone roots can be seen in the following tone pairs:

[ní-bə̄p] 'spoil, be bad' [ní-bə̀p] 'belch'

[ní-lɪ̄ɣə̄] 'want, desire' [ní-lɪ̀ɣə̀] 'be sour'

The same H v L tone contrast also appears in verbs containing the verbal suffix [lə], thus reinforcing the fact that this suffix has no underlying tone:

H: [ní-fɪ̄ː-lə̄] 'resemble' [ní-sūː-lə̄] 'weed'

L: [ní-nàː-lə̀] 'stretch' [ní-fə̀ː-lə̀] 'pour libation'

6.4 Other tone phenomena

In sections 5.1 and 5.2, we saw that the associative noun phrase is a rich source of both vowel

and consonant alternation, and the same is true for the tonal melodies of both nouns. This is an area that would certainly repay further study.

Similarly, there is much to be discovered about how tone is used grammatically in Weh. Given its closeness to Aghem, it would not be surprising to find instances of Weh grammatical tone in places similar to those in Aghem.

7. Conclusion

This sketch reports on the work that has been done on the segmental phonology of Weh and on the contrastive tonal melodies in the citation forms of nouns and verbs. This provides a basic picture of Weh phonology, but is of necessity limited in scope. It is hoped that others will be able to build upon this, and extend the linguistic knowledge of this fascinating language greatly in the future.

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Appendices

Appendix A: List of minimal tone pairs

NOUNS

Contrast H v HL

fɨ-tsáʔ ‘bicycle’
fɨ-tsâʔ ‘trap’

fɨ-tsáʔ ‘bracelet’
fɨ-tsâʔ ‘trap’

í-fə́m ‘latrine, toilet’
í-fə̂m ‘(be) white’

í-fə́w ‘axe’
í-fə̂w ‘leak’

í-ɣə́w ‘rain’
í-ɣə̂w ‘skin (of fruit)’

í-ɲí ‘knee’
í-ɲî ‘lake’

í-sáj ‘gizzard’
í-sâj ‘grave’

Contrast H v HL

í-sɨ́ ‘eye’
í-sɨ̂ ‘game’

í-sóʔ ‘voice box, larynx, Adam's apple’
í-sôʔ ‘labour, birth pains’

kɨ́-báʔ ‘rope’
kɨ́-bâʔ ‘shield’

kɨ́-báʔ ‘door, doorway cover’
kɨ́-bâʔ ‘shield’

kɨ́-dzóʔ ‘donkey’
kɨ́-dzôʔ ‘cheek’

ú-kɨ́ŋ ‘mortar, pounding pot’
ú-kɨ̂ŋ ‘trousers’

ú-lɨ́ɣə́ ‘fat’
ú-lɨ́ɣə̀ ‘bridge’

Contrast L v HL

kɨ́-kə̀m ‘log’
kɨ́-kə̂m ‘piece’

kɨ́-kùʔ ‘deaf (mute) person’
kɨ́-kûʔ ‘small of back’

Contrast L v !H

dzɨ̀ŋ ‘cricket’
dzɨ̄ŋ ‘hunger’

mbà ‘fence’
mbā ‘nail’

Contrast H v L

kɨ́-fɨ́ ‘belongings, thing’
kɨ́-fɨ ‘dove’

kɨ́-tsáʔ ‘mud, clay, mud block’
kɨ́-tsàʔ ‘rattle (musical instrument)’

núm ‘husband’
nùm ‘dry season’

fɨ-^{m}būʔ ‘banana’ (NOTE L prefix…)
fɨ-^{m}bùʔ ‘tapping knife’

Contrast H!H v HL

í-fə́w ‘leaf’
í-fə̂w ‘leak’

kɨ́-bə̄m ‘back (of something)’
kɨ́-bə̂m ‘testicle’

kɨ́-kə̄w ‘anteater, aardvark, antbear’
kɨ́-kə̂w ‘forest’

kɨ́-kʉ̄m ‘juju’
kɨ́-kʉ̂m ‘cutlass’

Contrast H v H!H (Nouns)

í-fə́w	‘axe’
í-fə̋w	‘leaf’

VERBS *(all contrasts H v L: H is downstepped after prefix [ní-])*

ní-bə̄p	‘ask, request’	ní-sāj	‘sharpen (knife)’
ní-bə̀p	‘belch’	ní-sàj	‘choose (tr), pick (tr)’
ní-bə̄p	‘spoil (food), be spoilt’	ní-sāŋ	‘disappear’
ní-bə̀p	‘belch’	ní-sàŋ	‘clear (land for planting)’
ní-dāŋ-ŋə̄	‘cross (river)’	ní-sāʔ	‘rule over, dominate’
ní-dàŋ-ŋə̀	‘obstruct’	ní-sàʔ	‘dismantle, break up’
ní-fə̄p	‘blow (wind, with mouth)’	ní-sī	‘urinate’
ní-fə̀p	‘(be) blind’	ní-sì	‘pull, drag’
ní-fɪ̄ɣə̄	‘suffer’	ní-tāt	‘be initiated’
ní-fɪɣə̀	‘carve’	ní-tàt	‘spoon out’
ní-fū	‘give’	ní-tsɪ̄	‘pay (for goods, services, etc.)’
ní-fù	‘dip’	ní-tsɪ̀	‘advise’
ní-kā	‘scrape’	ní-tsōʔ-lə̄	‘rub’
ní-kà	‘swear’	ní-tsòʔ-lə̀	‘sprinkle’
ní-kā	‘scrape’	ní-zā	‘dry out (clothes)’
ní-kà	‘castrate’	ní-zà	‘vomit’
ní-kə̄w	‘fasten, bind (load)’	ní-zə̄t	‘rub off’
ní-kə̀w	‘coagulate, clot’	ní-zə̀t	‘sweep’
ní-kū	‘put, place, set’	ní-zə̄w	‘hear’
ní-kù	‘cook’	ní-zə̀w	‘strip off (bark)’
ní-kxə̄	‘(be) drunk’	ní-zɪ̄ɣə̄	‘fly’
ní-kxə̀	‘cut open, cut down’	ní-zɪɣə̀	‘cease, stop’
ní-lɪ̄ɣə̄	‘love, want’	ní-zɪ̄ɣə̄	‘sow, plant’
ní-lɪɣə̀	‘(be) sour’	ní-zɪɣə̀	‘allow, permit’
ní-mōʔ-lə̄	‘imitate’	ní-zɪ̄ɣə̄	‘fly’
ní-mòʔ-lə̀	‘think, remember’	ní-zɪɣə̀	‘allow, permit’
ní-nēj	‘feed (animals)’	ní-zɪ̄ɣə̄	‘sow, plant’
ní-nèj	‘take’	ní-zɪɣə̀	‘cease, stop’

ní-sāj	‘scratch’	ní-zū	‘buy’
ní-sàj	‘throw’	ní-zù	‘fight’
ní-sāj	‘sharpen (knife)’	ní-zū	‘thatch’
ní-sàj	‘throw’	ní-zù	‘fight’
ní-sāj	‘scratch’		
ní-sàj	‘choose (tr), pick (tr)’		

Appendix B: Suffix [-lə]

Whereas Bantu languages often have several verbal suffixes with a variety of functions, Grassfields Bantu languages commonly have a smaller number, and the functions may be combined. The one clear suffix so far found in Weh is [-lə]: it occurs in this form after roots with final vowels and final glottals. It is not uncommon to find pairs of words with related meanings, one without and one with this suffix:

[nísū] 'uproot'	[nísū:lə̄] 'weed'
[níkɔ̄ʔ] 'ascend'	[níkɔ̄ʔlə̄] 'honour'

(Note that a root final vowel is lengthened before the suffix.) In addition, nouns denoting the verb's action are derived with the addition of [-lə]:

[nízū] 'buy'	[zú:lə́] 'buying'
[nídɨɣə̀] 'stamp'	[dɨɣɨ̀lə̀] 'stamping'

Another function of this suffix is to indicate a recurring or continuous action:

[níkxə̀] 'cut open'	[níkxə̀:lə̀] 'cut' (repeatedly)
[nísīɣə̄] 'slice'	[nísīɣɪ̄lə̄] 'slice into pieces'

The suffix [-lə] is not found in this form after sonorant-final roots, but the same relationships between pairs of words are apparent:

[nítsɪ̄ŋ] 'fear'	[nítsə̄ŋ:ə̄] 'shiver, tremble'
[níɲɔ̄ŋ] 'suck'	[ɲɔ́ŋ:ə́] 'sucking'
[nítə̄n] 'push'	[tə́n:ə́] 'pushing'

In such cases, it appears that the root-final consonant and the [l] of the suffix coalesce to give a lengthened sonorant. This is also the case with root-final approximants:

[nízə̀j] 'breathe'	[nízə̀j:ə̀] 'rest'
[nísə̀j] 'throw'	[sə̀j:ə̀] 'throwing'
[nísə̀w] 'wash, bathe'	[sə̀w:ə̀] 'watery' (e.g. consistency of fruit)

There are instances of lengthened [m] and [l], which may also result from this suffixation:

[nínə̄m:ə̄] 'growl'
[nímə̄l:ə̄] 'be deep'

However, the more regular patterns in these cases appear to be the following:

[nítām] 'trap'	[tá:má] 'trapping'
[níkām] 'squeeze'	[níkā:mə̄] 'squeeze' (continuously), 'strangle'
[níbàt] 'tear'	[bà:lə̀] 'tearing'
[nízwɔ̀t] 'itch'	[zwɔ̀:lə̀] 'itching'

That is, roots with coda [m] and [t] show a lengthening of the root vowel rather than the final consonant. In addition, coda [t] alternates with [l]. This vowel lengthening is also found with root-final [p]:

[nítsɔ̀p] ‘hit’	[tsɔ̀:βə̀] ‘hitting’
[nífə̄p] ‘blow’ (wind)	[nífə̄:βə̄] ‘fan, winnow’

Here, both word-final [p] and intervocalic [β] are allophones of /b/.

The above account represents the ‘simple’ case of suffixation, although some complications have already been mentioned (i.e. lengthened [m] and [l]). There appear to be several others that will need to be considered in a full examination of suffixation, including its effects in vowel and consonant lengthening. For example, there are some CVCV roots which show lengthening of the C2 consonant:

[níbāŋə̄] ‘grasp, seize’	[níbāŋ:ə̄] ‘argue’ (struggling over time...)
[nídzɨ̀ŋə̀] ‘wear’	[dzɨ̀ŋ:ə̀] ‘wearing’

There are also pairs of words with (unexpected) unlengthened consonants:

[nítsɔ̄ŋ] ‘steal’	[tsɔ́ŋə́] ‘stealing’
[níbən] ‘dance’	[bə́nə́] ‘dancing’

Finally, the same suffix appears with nouns too:

[íkɔ́ʔlə́] ‘praise’ (n)	[níkɔ̄ʔlə̄] ‘honour’ (v)
[íkpá:lə́] ‘insult’ (n)	[níkpā:lə̄] ‘insult’ (v)

Here, there can be additional complications, such as the alternation between short and lengthened [ŋ] in the following example:

[kɨ́túŋə̄] ‘ear’	[túŋ:ə kŭŋ] ‘my ear’

The whole topic of Weh suffixation would repay further study.

Appendix C: The 'Odd Sounds' of Weh

As we have seen in several places (sections on palatalisation, velarisation and 'velarised diphthongs'), there are a number of 'odd' sounds in Weh. These are not necessarily odd in a phonetic sense, but rather in the context of Weh they all seem to have just a few examples each, and it is consequently not easy for a traditional phonology to handle them. However, there are some similarities between these sounds and they appear to come from a common historical origin, as appears when we look at their cognates in Aghem.

The following list provides a summary of these 'odd' sounds: the highlighted numbers show how many examples have been found so far.

- [í-tjím] 'liver', [kɨ́-ljə̌m] 'cockerel's comb' (palatalisation): (3)
- [kɨ́-ɲíᵊm] 'tongue', [í-ʒíᵊm] 'song' and other palatal consonants followed by [ɪᵊm] (possibly some kind of 'palatal prosody'?): (15)
- [í-kxɨ́m] 'crab' and [ní-bɪ̄ɣɪ̄m] 'accept, agree' (underlyingly /iɣim/): (5)
- [ní-bɣūm] 'hunt', [tɨ́-fɣúm] 'gossip' (apparent velarisation): (3)

The phonetic similarities in these Weh cases are:

- root-final [m] everywhere:
- some kind of secondary articulation (palatalisation, velarisation):
- close vowel (usually central or front).

The table immediately below provides a list of some of the above-mentioned Weh words with their Aghem cognates:

Weh	Aghem	gloss
í-tjím	é-tɔ́m	'liver'
kɨ́-ljə̌m	kɨ-lɔ̂m	'rooster's comb'
kɨ́-ɲíᵊm	kɨ́-nɔ́m	'tongue'
í-ʒíᵊm	é-zɒ́m	'song'
í-kxɨ́m	é-kɔ́m	'crab'
ní-bɪ̄ɣɪ̄m	é-bɔ́ɔ	'agree'
tɨ́-fɣúm	tɨ́-fɔ́m	'gossip'
ní-bɣūm	é-gbɒ́m	'hunt'

All of the Aghem cognates in such cases (not just these examples) have low back vowels and the majority of them are followed by the same root-final [m]. When comparing the cognates, we note the following:

- When C1 in Aghem is [t] or [l], Weh has 'simple' palatalisation.
- When C1 in Aghem is another kind of alveolar, Weh has a palatal C followed by the sequence [ɪᵊm].
- When C1 in Aghem is a velar stop, Weh has a velar affricate followed by [ɨm].

- When C1 in Aghem is labial, there are 2 possibilities in Weh: either [iɣim] or [ɣum]. This variation is not currently understood, but the minimal pair [ní-bīɣīm] 'agree' and [ní-bɣūm] 'hunt' should be noted.

At this point, we should highlight the difference between words such as [í-kxɨm] 'crab' and [ní-bīɣīm] 'agree' on the one hand, and [í-tsɨɣə́] 'fish' on the other. They both represent unusual cases (i.e. the above-mentioned 'chunks' of language), and in the context of Weh we will posit the same underlying form, /iɣi/, in both cases. However, in examining their Aghem cognates we recognise a different origin for each kind: the former correlate with Aghem [ɔɔ/-ɔm]-type words, and the latter with [iɣa] words.

No hard and fast conclusions can be drawn on the basis of this brief overview, but there is clearly much more to be discovered about the historical situation relative to these 'odd' sounds in Weh. A detailed study of other related languages would surely be fruitful and rewarding.

Two final remarks

The Aghem cognate for [ú-dʒɪ̄ᵑm] 'dream' is [ó-dʒɔ́ɔ̄]. Alone among the Aghem cognates for those which have a palatal C plus [ɪᵑm] in Weh, this word has a palatal instead of an alveolar consonant. Without knowing more about the historical situation, it is hard to know whether Weh has undergone a process of palatalisation which has left Aghem mostly unaffected or whether Aghem has 'de-palatalised' most of the consonants in this particular environment. The latter of those two possibilities is the more likely, although it is also conceivable that both languages (Aghem more so than Weh) have lost some of the extensive proto-Grassfields palatalisation that is still to be seen in many other languages.

It should also be noted that coda [m] is known to have a certain influence on preceding vowels in other Grassfields Bantu languages. In a phonology sketch of Ngiemboon-Bamileke, Stephen Anderson states the following (p4):

> The mid vowel /e/ is centralized before syllable-final nasal consonants, as shown below:
> /sem/ [sə̀m˥] "tom-tom" /mɛ̀ŋ/ [mə̀ŋ˥] "I"
>
> Similarly, the mid vowel /o/ becomes unrounded before syllable-final nasal consonants:
> /fom/ [fɤ́m˥] "to mould"

Other studies of related languages may reveal more such effects from root-final [m] consonants.