**Tonalixco plant names**

Practical orthography

x voiceless palato-alveolar fricative

j voiceless velar fricative

X voiceless uvular fricative

^ laryngealization (vowels)

' glottal stop

q voiceless uvular stop

k voiceless velar stop

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| # | Left  Miguel Juan López Bonilla  (father) | Right  Andrés López Alemán (son) | Comments | Species | Use |
| 84000 | ji:nah | ji:na | Right channel at times seems to have final glottal stop, left channel does not. Right channel | Piperaceeae  Piper auritum | Para bañar a los niños, si tiene algún fiebre o gripa. |
| 84001 | ase:ytih | ase:yteh | Borrowing from Spanish name/use. | Euphorbiaceae  Ricinus communis |  |
| 84002 | wi:sqât | wi:sqât | Uvular stop may laryngealize following vowel or the vowel may be underlyingly laryngeal. Right channel consonant /q/ more clearly uvular and the vowel more clearly laryngealized. | Pending family | Horcones para construcción de casa, se comen las moras |
| 84003 | cheremo:yah | cheremo:yah | Final aspiration clearer on left channel | Annonaceae  Annona sp. |  |
| 84004 | sin nombre | sin nombre |  | Malvaceae |  |
| 84005 | xkûnan | xkûna | Right channel with final glottal stop, left channel has apparent final nasal or aspiration. Perhaps sequence /u'/ is best considered laryngealized vowel? | Begoniaceae, Begonia sp. | Edible, with beans. Three types of xku'na, stem eaten boiled with beans. |
| 84006 | kilhxkulit | kilhxkulit |  | Fern |  |
| 84007 | tanchuch | tanchoch | Second vowel of L is higher. | Malvacae |  |
| 84008 | yâqalaman | yaqalaman |  | Actinidiaceae  *Saurauia* cf. *cana* Keller & Breedlove |  |
| 84009 | sebo:yah xanat | sebo:yah xanat |  | Iridaceae  Croscomia sp. |  |
| 84010 | tankapa:s | tankapa:s | Uncertain whether final vowel is long. | Fern |  |
| 84011 | pu:yohxanat | pu:yohxanat | From Sp. "pollo". Unclear whether /h/ is articulated before /x/. | Begoniaceae  Begonia sp. | Begoniaceae, Begonia sp. |
| 84012 | sese:bah | sese:bah | From Spanish "sebo". |  | Crassulaceae |
| 84013 | kû:nâ' | kû:nâ' | At times a glottal closure seems to be audible after the first vowel, /u/ but this has been ascribed to laryngealization, clearly in L speaker. But both vowels seem laryngealized in both speakers. Final glottal stop is written though once the phonology is determined it might be that the final contrast is nothing (vowel final) vs. either /h/ or glottal stop. | Familia pendiente |  |
| 84014 | li:tampah | li:tampah | Final sound at times seems like a nasal, /n/ but unclear whether it should be written /h/, /n/ or simply nothing, the absence of a glottal stop. /n/ seems most clear in final pronunciation of L. | Arecaceae  Chameadorea sp. |  |
| 84015 | sin nombre | sin nombre |  | Orchidaceae |  |
| 84016 | sin nombre | sin nombre |  | Familia pendiente |  |
| 84017 | pulu:nswat | pulu:nswat | Or perhaps from pulu:nsuwat,  pulu:msywat | Familia pendiente |  |
| 84018 | maraXaXoxanat | maraXaXoxanat | Unclear if /h/ might be present as in  maraXaXohxanat | Orchidaceae |  |
| 84019 | li:palhna' | li:palhna' |  | Asteraceae,  Baccharis sp. |  |
| 84020 | sqôkât | sqôkât | First vowel seems laryngealized but perhaps from efecto of /q/. | Oxalidaceae,  Oxalis sp. |  |
| 84021 | ka:kawkiw | ka:kawkiw |  | Juglandaceae  Juglans sp. |  |
| 84022 | skân | skâm | First pronunciation on L seems to have final /m/ while others have /n/. Stop seems velar with laryngealization of final vowel. | Caryophyllaceae |  |
| 84023 | xkapu:nkut | xkapu:nkut | After final determination of phonology the sequence /nk/ may be reanalized. It seems to be a velar nasal or sequence /ng/. Perhaps this is the surface realization of {nk} or perhaps there is a velar nasal as a phoneme. | Solanaceae  Solanum sp. |  |
| 84024 | yekski:k | yekski:k |  | Familia pendiente |  |
| 84025 | tsilik | tsilik |  | Familia pendiente |  |
| 84026 | sin nombre | sin nombre |  | Piperaceae  Peperomia sp. |  |
| 84027 | sin nombre | sin nombre |  | Orchidaceae |  |
| 84028 | xapxâ' | xapxâ' | Again, unclear whether final is best written /xa'/ with final glottal stop, /xâ/ with final laryngealized vowel and glottal stop redundant, or /xâ'/ | Familia pendiente |  |
| 84029 | xtuku:n  fruto es watsap | xtuku:n  fruto es watsap | The plant is called xtuku:n and the fruit, watsap. Note that the fruit name is borrowed into Nahuat as the plant name. But, also, it seems that in other Totonac languages the plant is also called wa:tsap. | Rosaceae |  |
| 84030 | ta:xtiniaq o ta:xtiniaX | ta:xtiniaq | It is unclear whether the final {q} should be written /q/ all the time as the final pronunciation of L speaker seems more like an affricate or closed fricative. Not clear also whether the two uvular sounds are in complementary distribution, which appears to be the case. | Familia pendiente | Used for tamales |
| 84031 | xu:nijkukat | xu:ni:k kukat | The elderly speaker seems to convert the gemínate /kk/ from xu:nik + kukat to /jk/ with a voiceless velar fricative instead of the initial /k/. The son has a doublé stop, manifested by extremely long closure. The etymology includes kukat, 'oak'. | Fagaceae  Quercus sp. |  |
| 84032 | xiliaqâîkiw | xiliaqâîkiw  First two pronunciations are xiliaqkiw. Then, perhaps influenced by his father's pronunciation, it is changed. | Note that here we have kiw, 'tree' instead of kukat even though this is a Quercus. | Fagaceae  Quercus sp. |  |
| 84033 | xãqalamaspó:n | xãqalamaspó:n |  | Cannabaceae  Clethra micrantha |  |
| 84034 | xapxâ' | xapxâ' |  | Familia pendiente |  |
| 84035 | sin nombre | sin nombre |  | Familia pendiente |  |
| 84036 | sin nombre | sin nombre |  | Bignoniaceae ? |  |
| 84037 | yu:yoh | yu:yoh | Unclear whether better to simply write /yu:yo/. | Asclepiadaceae, Marsdenia o Gonolobus |  |
| 84038 | tlanká:stapo | tlanka:stap | Note that the son, R, pronounces with loss of final vowel in the word for "frijol" and has the accent on the penultimate [tlan 'ka:s tap]. His father, L, manifests the final vowel of the word for 'bean' but at least in the final pronunciations it is extra metrical [tlan 'ka:s ta po]. A similar variation in the presence/absence of final vowels is found in kiwi vs. kiw and again with the same generational difference. | Leguminosae, Papilioniodeae |  |
| 84039 | sin nombre | sin nombre |  | Familia pendiente |  |
| 84040 | sâka:na:xanat | sâka:na:xanat | Again, laryngeal quality if first vowel is perhaps debatable. Vowel length needs to be checked. | Asteraceae |  |
| 84041 | tsatsâqwâxo:nik | tsatsâqwâxo:nik | Several major doubts with this word. The first is whether the second /a/ is indeed laryngealized. The second is whether the following /a/ is also laryngealized. I have suggested that both are. Then there is the question as to whether the labialized stop is uvular (as I have indicated) or velar. Vowel lenght as well needs to be checked. | Vitaceae, Cissus sp. |  |
| 84041 bis | qôxapât |  | Transcription needs to be checked. |  |  |
| 84042 | yo:yoh | yo:yoh | Not recorded. | Asclepiadaceae, Marsdenia o Gonolobus |  |
| 84043 | sin nombre |  |  | Lamiaceae |  |
| 84044 | xtuyô' | xtuyô' | Again, see previous comments re: final laryngealized vowel and/or final glottal stop. | Asteraceae, Bidens odorata o B. alba |  |
| 84045 | sin nombre |  |  | Familia pendiente |  |
| 84046 | xtlampoxnisuluk | xtlampoxnisuluk | Perhaps xtlampoxnisulûk | Familia pendiente |  |
| 84047 | mostasaku:li:x | mostasaku:li:x | Obviously from Sp. mostaza as this is a Brassica sp. | Brassicaceae, Brassica sp. |  |
| 84048 | sin nombre |  |  | Verbenaceae? |  |
| 84049 | kuta:wîk | kuta:wîk | Check if final /i/ is laryngealized. | Asteraceae |  |
| 84050 | lhi:sqa:pankiw | lhi:sqa:pankiw |  | Familia pendiente |  |
| 84051 | sin nombre |  |  | Euphorbiaceae, Acalypha sp. |  |
| 84052 | tanchô'nâ'â | tanchônâ' | Again note what appears to be laryngealized and/or glottal closure after the vowel. Note that for L speaker the final vowel is apparenly rearticulated as aɁa. Whether this is simply a [aɁ] needs to be determined. The glottal stop after /o/ is more pronounced in L speaker. | Orobanchaceae |  |
| 84053 | lhimâqâstupâ:q o a veces lhimâqâstupâ:X | lhimâqâstupâ:q | Hard to tell if all /a/ are laryngealized as in transcription. L speaker final consonant seems distinct from R speaker. It is more of an affricate or fricative, as in the final pronunciation. | Solanaceae, Solanum sp. |  |
| 84054 | xwatsap kawa:yoh | xwatsap kawb:yoh | In a previous utterance of watsap, above, I had originally Heard the first /a/ long, something not apparent here. | Verbenaceae |  |
| 84055 | tla:stoy | tla:stoy | The final sound is a voiceless palatal fricative ,[ç], written as a /y/ | Asteraceae  *Acmella repens* (Walter) Rich. |  |
| 84056 | lhpôpôqôwatsâp | xpôpôqôwatsâp | The initial sounds are confusing…. leaving it at that. It appears that L has /lh/ whereas R has /x/. Likewise the laryngealization or lack of for the first vowels is unclear.  Finally, the final /a/ here in watsâp seems laryngealized and thus perhaps the previous two plant names with watsap need to be rechecked. | Rosaceae |  |
| 84057 | sin nombre |  |  | Solanaceae, Solanum sp. |  |
| 84058 | sin nombre |  |  | Familia pendiente |  |
| 84059 | yôqsmia:k | yôqsmia:k |  | Fagaceae, Quercus sp. |  |
| 84060 | matsiá:palhma | matsia:palh  o  matsia:palhma | Note that when R pronounces palhma with a final vowel he seems to be influenced by his father's (L) speech as he begins with a final vowel and then shifts to consonant final. When L pronounces palhma the –ma seems extrametrical and stress is antepenultimate. | Sapindaceae (en esp. 'hierba de pulga') |  |
| 84061 | lhotonqxo:ni:k |  |  | Anacardiaceae? |  |
| 84062 | sin nombre |  |  | Urticaceae |  |
| 84063 | lu:snî' | lu:snî' |  | Cucurbitaceae |  |
| 84064 | sin nombre |  |  | Apiaceae? |  |
| 84065 | sin nombre |  |  | Lamiaceae |  |
| 84066 | moxiwâ' | moxiwâ' |  | Asteraceae, Acmella repens |  |
| 84067 | sin nombre |  |  | Asteraceae |  |
| 84068 | sin nombre |  |  | Asteraceae, Melanthera sp. |  |
| 84069 | chixixipa:lmah  o  chixixipalmâ' | chixixipalmâ' | The first several pronunciations of L seem to have final aspiration while the last do not. Needs to be checked. | Lamiaceae, Salvia sp. |  |
| 84070 | sin nombre |  |  | Polemoniaceae ? |  |
| 84071 | ma:ntsa:nákiwi | ma:ntsa:nakiw |  | Asteraceae |  |
| 84072 | xâkxanâni:n | xâqxanâni:h  o  xâqxanâni:n | Note the difference in final consonant between the two speakers as in the realization of the laryngealized vowels. | Iridaceae o Liliaceae |  |
| 84073 | makastakâ:t | makastakâ:t |  | Salicaceae |  |
| 84074 | sku:lî' | sku:lî' | Laryngealization apparent for L on final vowel and for R particularly in final pronunciation. | Familia pendiente |  |
| 84075 | xqâXâ' | xqâXâ' | Apprently both vowels are laryngealized. | Agavaceae |  |
| 84076 | ko:nxûlh | ko:nxûlh | Tipo de kukat. Final vowel clearly laryngealized, first vowel probably not but possibly. | Fagaceae, Quercus sp. |  |
| 84077 | xpiîpalhmah  [xpi 'î palh mah] | xpiîpalh | L speaker sounds like a modal followed by a larynealized vowel but this may be the result of the shift in phonation on a long laryngealized vowel across time although the duration of the vowel seems to clearly indicate a gemínate. Fornow it has been written as /iî/ . L speaker has the final syllable extrametrical thus assigning stress to the laryngealized /î/.  The form of palhma(h), etc. needs to be determined as there seems to be some variation in my hearing of the final syllable. With L in this case there is a clear final aspiration.  R speaker has a clear doublé vowel of > 200 ms which has been written /iî/ | Lamiaceae? |  |
| 84078 | sin nombre |  |  | Familia pendiente |  |
| 84079 | xta:li:lhkââ:' | sin nombre | Note that at first R pronounced a word xtlalilhqâ which is perhaps erroneous and not the name of the tree, which he doesn't know well. Only L gave the proper name, after some discussion.  The transcription of the final vowel sequence of L is probably in error but the vowel seems to measure about 180 ms which is almost like two long vowels. It may also be that final laryngealized vowels are rearticulated, but this does not seem to always be the case so perhaps what appears to be rearticulation is in fact two vowels. For now, pending analysis, it is written as a short and long laryngealized vowel geminate. | Leguminosae |  |
| 84080 | lhâqtisipapalhma'a | sin nombre | Again, final vowel sequence uncertain, appears rearticulated and laryngeal, in parts. | Lamiaceae or Verbenaceae |  |
| 84081 | xakstapolu:wâ' | xakstapolu:wâ' | Apparently means 'snake's bean' with another element before the Word for 'bean', pending translation. R knows two types.  Note that for L the final vowel seems laryngealized. Note that the rearticulation here seems the effect of a release of the glottal stop and not a doublé vowel so perhaps other cases in which I have written a doublé final laryngealized vowel are simply. | Leguminosae |  |
| 84082 | sin nombre |  |  | Familia pendiente |  |
| 84083 | ya:xkukiwi | ya:xkukiw | Antepenultimate stress on L speaker.  Note that the pronunciation of R seems to have a laryngealized final vowel, ya:xkukîw, on the final token. | Familia pendiente |  |
| 84084 | lekûkiwi' | lukukiw | L speaker's first vowel quality is not clear. Again, final vowel of L seems larygealized at time, kiwî, which suggests need to review all occurrences of /kiwi/. Note that for L I hear a laryngealized û while for R I do not. Unsure of 2nd consonant in L and R, /q/? | Familia pendiente |  |
| 84085 | xlyaX lu:wâ' | xlyaX lu:wâ' | Significa "guaje de culebra" | Leguminosae |  |
| 84086 | not recorded | xapxâ' | Recorded previously, 84028. |  |  |
| 84087 |  |  |  | Hydrophyllaceae, Wigandia urens |  |
| 84088 |  |  | Solanum |  |  |
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