



Is Harakmbut a language island?

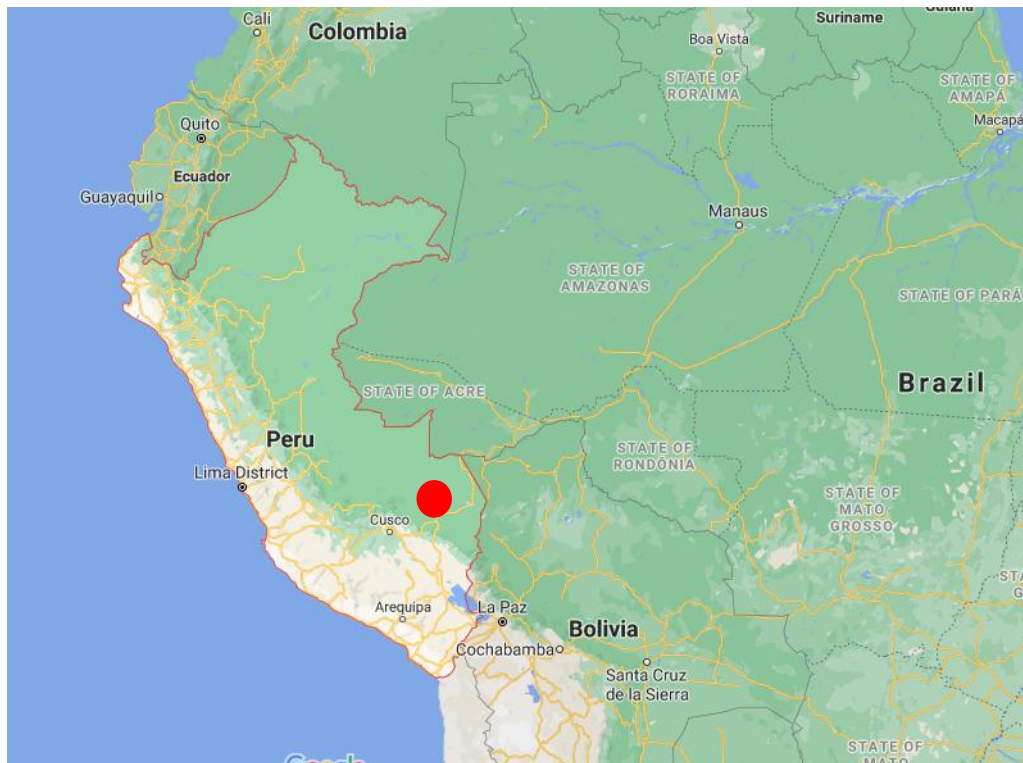
A closer look at the Harakmbut–Katukina–Arawan grouping

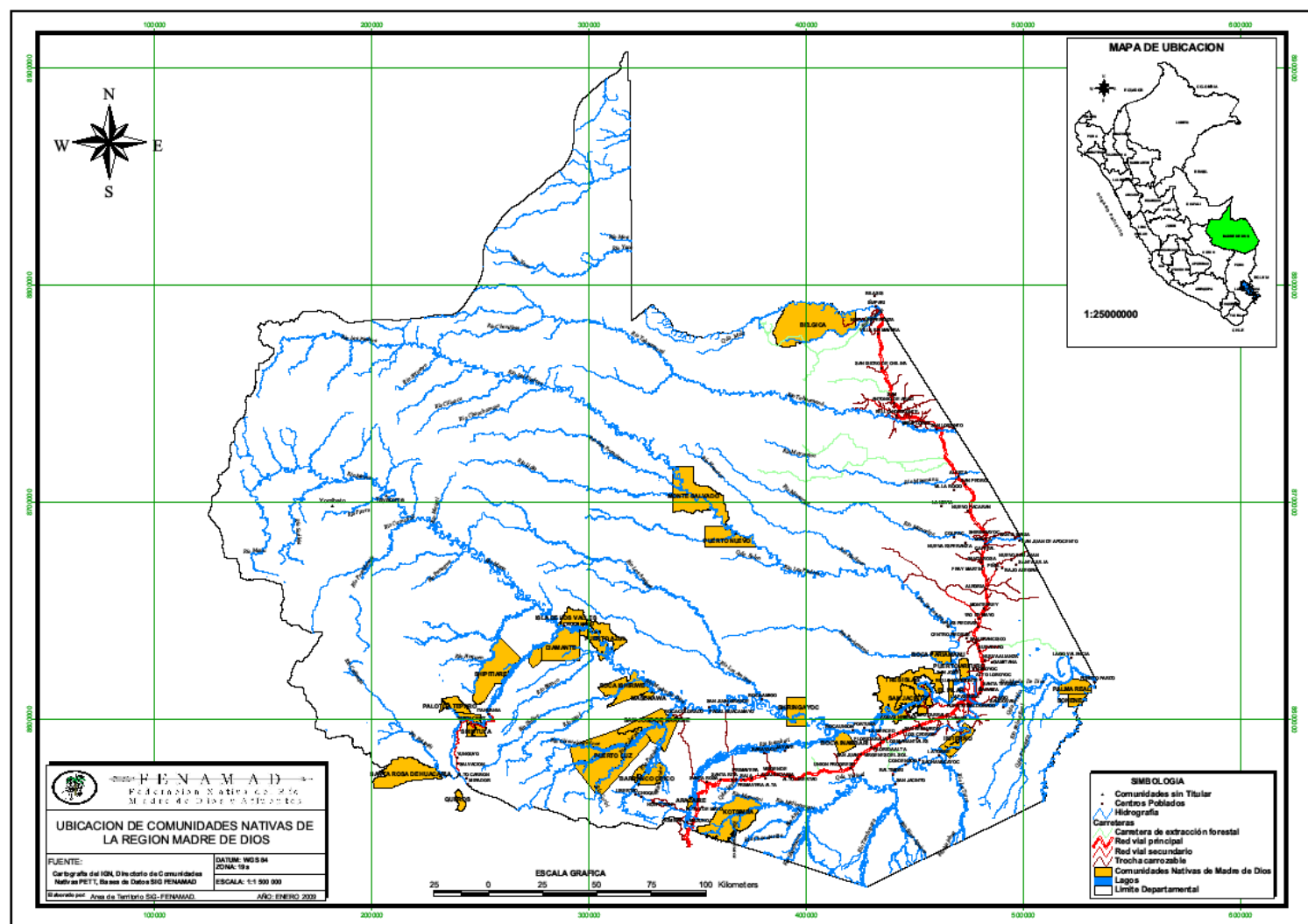
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Introduction

- Harakmbut is a language from the Peruvian Amazon, Madre de Dios and Cusco
- Genetic affiliation:
 - classified as Arawakan or Maipuran by McQuown (1955: 530) and Matteson (1972), but refuted by Payne (1991: 365–369)
 - Consensus since 1960s: **isolate/unclassified** language (cf. Tovar 1961; Loukotka 1968; Lyon 1975; Helberg 1984; Wise 1999: 307; WALS; Van linden 2023a)
 - Adelaar (2000, 2007): genetically related to the Brazilian **Katukina** family
- Areality: some grammatical features are shared with languages from **Guaporé-Mamoré** linguistic area (Crevels & van der Voort 2008)





Introduction: Harakmbut–Katukina–Arawan grouping

Based on **lexical** similarities:

- Adelaar (2000) proposed a genetic link between Harakmbut and Katukina.
(53 cognates, 11 of which he regards as less convincing)
- Adelaar (2007) added Katawixi.
- Jolkesky (2011) added the Arawan family to Adelaar's (2000) proposal.

Other evidence for these hypotheses so far: slim and unsystematic

- **Morphosyntactic** evidence
- **Anthropological/historical/archaeological** evidence

The languages

Harakmbut:

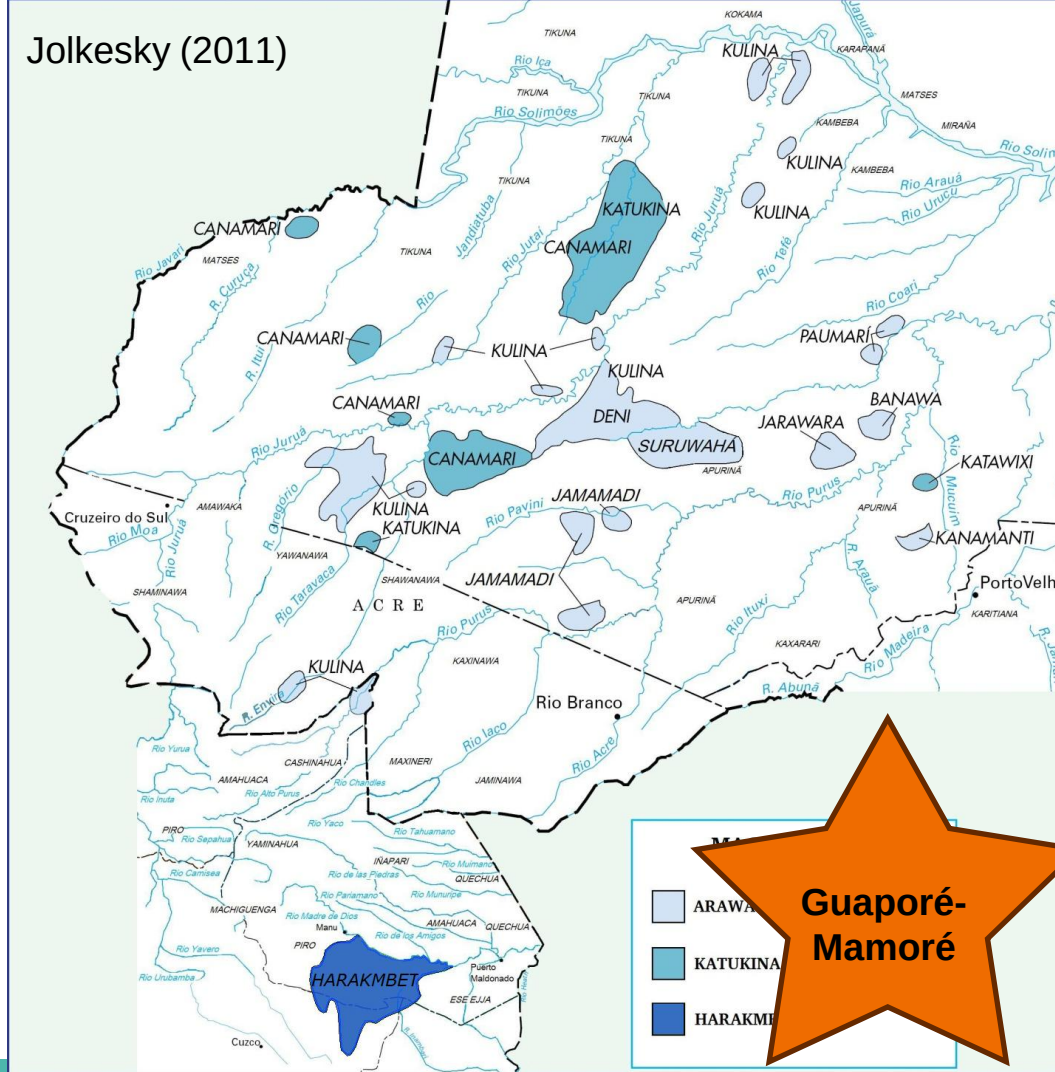
Amarakaeri/Arakmbut
Watipaeri
Arasaeri
Pukirieri
Sapiteri
Toyeri

Katukinan family:

Katukina (of Biá)
Kanamari
Katawixi

Arawan:

Arawa
Banawa
Deni
Jamamadi
Jarawara
Kulina
Paumari
Sorowahá
+2



Outline

Closer look at hypothesis on Harakmbut–Katukina–Arawan grouping

Assessment of hypothesis from perspective of Harakmbut:

- Indications from oral literature
- Compare grammatical descriptions of the three families: morpho-syntactic clues?
- Compare ethnographic information on Harakmbut – Katukinan

Harakmbut–Katukina–Arawan grouping

Adelaar (2000: 224-227) **Katukina** (capitals) & **Harakmbut** (bold): convincing cognates – or too similar?

- (1) HAK 'casa' (FQ); katukina: HAK (MSA) 'house'
hák 'casa' (EM); **hak** 'casa comunal' (HH 1993)
- (3) I 'pie' (FQ); [TSO']I (CG) 'foot' (tso'i: 'our foot')
-i? 'pie' (EM); **wa+?**i (HH 1984: 243)
- (5) KI 'cabeza' (FQ); [TSO]KI (CG); katukina: TSAM KERA (MSA) 'head'
-ki 'cabeza' (EM); **wa+ku** 'cabeza', 'forma de corona' (HH 1984: 244)
- (9) BA 'mano' (FQ); [TSO]BA (CG); katukina: BAKE (MSA) 'hand'
 BAKI 'muñeca' (FQ)
 KI = 'cabeza', cf. (5);
-mba 'mano' (EM); **wa+mba?** 'mano', 'forma de hoja' (RH) (HH 1984: 244)
 pano: cashinahua: *meken* 'mano'
- (10) HAKBA, TAROBA 'hoja' (FQ); BA (CG) 'leaf'
e?mba 'hoja' (EM); **e?**+mba? (HH 1984: 437)
hak-mba [house-leaf] 'crisneja leaf
 (to thatch a roof with)'

Harakmbut–Katukina–Arawan grouping

Adelaar (2000: 224-227) **Katukina** (capitals) & **Harakmbut** (bold): convincing cognates – or too similar?

- | | |
|---|--|
| <p>(11) MA 'estómago' (FQ); [TSO]MA 'hígado' (CG)
 wa+mē? 'hígado' (HH 1984: 244)</p> <p>(13) MIMI 'sangre' (FQ); [TSO]MIMI (CG)
 mūmū 'sangre' (EM)
 pano: cashinahua: <i>himi</i> 'sangre'</p> <p>(17) WADIK 'nombre' (FQ); -WADIK (CG)
 -*dik 'nombre' (EM); wa+*dik (oandik) 'nombre' (HH 1996: 78),
 e?+*dik+ka? 'dar nombre' (HH 1996: 148).</p> <p>(22) DAN 'camino' (FQ); DAM (CG) DAN (FQ): [ˈdan]
 *dag 'camino', 'trocha' (EM); *dag 'camino' (HH 1984: 242)</p> <p>(28) DOKNA '(ir a) defecar' (FQ)
 -NA = alejándose del hablante
 *do? 'defecar' (HH '96)</p> | <p>'stomach', 'liver'</p> <p>'blood'</p> <p>'name'</p> <p>'give name'</p> <p>'path; way'</p> <p>DO:K: 'defecate' (dos Anjos 2011)</p> <p>ma-ndo? (VPL-defecate) (AVL)</p> |
|---|--|
- Correspondence: k - ?
 (but not in *hak* 'house', *wandik* 'name', *kuruk/ketek* 'break')

Harakmbut–Katukina–Arawan grouping

Adelaar (2000: 224-227) Katukina (capitals) & Harakmbut (bold): less convincing cognates

- (12) **I**KO 'ojo' (FQ); [TSO']IKO (CG); katukina: AEKO (MSA)
-kpo 'ojo' (EM); **wa+kpo** 'ojo', 'esfera' (HH 1984: 244)

compare: PO 'egg'
-po 'round object'

- (32) KODO'OMI 'nube' (FQ); KODOH'OMI (CG)
 OMI = 'humo', cf. (48)
kurud 'nube' (EM)

Maribel-en- <u>okpo</u>
Maribel-GEN-eye
'Maribel's eye, well in place' (Van linden 2023b: 1546)

- (43) POI 'cabello' (FQ); KIPOIH (CG) (with KI = 'cabeza')
-wih (EM) 'vello'; **wawih** 'pelo' (RH)

- (48) OMI 'humo' (FQ); IHTANO'OMI (CG) (with IHTANO = 'fuego')
oʔsīwī 'humo' (EM) (AVL: **eʔsīwī** 'smoke')

Correspondence: m – w (Adelaar 2000: 231)
 (but not in *mimi* 'blood', *min* 'belly', *pama/pagn* 'father';
nyama/nāŋ 'mother')

Hypothesis (2000: 233): Languages split first millennium BC

Harakmbut–Katukina–Arawan grouping

Adelaar (2007:163): adding Katawixí to grouping

Katukina data from Dos Anjos (2005); Katawixí data from Tastevin (ms, *ca.* 1920)

	katukina lato	katawixí	harakmbut	
(32)	mimi	mimi	mīmī	‘sangre’
(33)	i:	éé	-ʔid^a	‘diente’
(34)	pu	po		‘huevo’
			-po	‘objeto redondo’
(35)	ba	ba	-^mbaʔ	‘hoja’

‘blood’

‘tooth’

‘egg’

‘round object’

‘leaf’

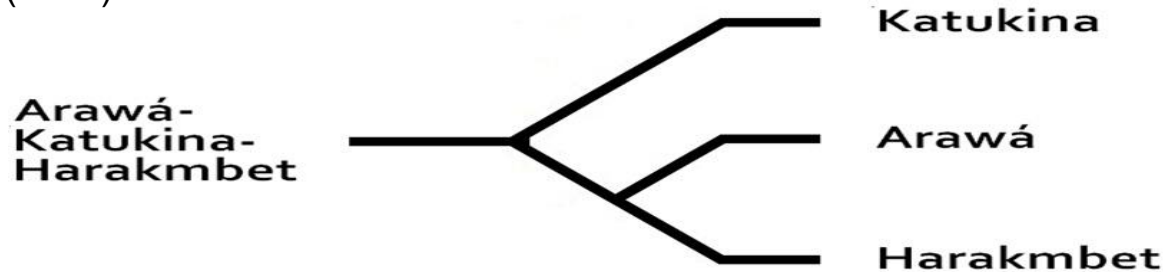
Harakmbut–Katukina–Arawan grouping

Adelaar (2007:167)

	katawixí (Tastevin)	harakmbut		
(52)	[örada]wihi ⁽¹⁾	-wih ⁽²⁾	⁽¹⁾ ‘cejas’ (= ‘pelo del ojo’) ⁽²⁾ ‘pelo’, ‘lana’	‘eyelashes’ ‘fur; hair’, ‘wool’
(53)	pi ⁽¹⁾	-pi ⁽²⁾	⁽¹⁾ ‘espina’ ¹⁰ ⁽²⁾ ‘palito’, ‘lápiz’, ‘pedúnculo de caña brava’	‘thorn’ ‘stick’, ‘pencil’ ‘reed stalk’
(54)	tāg[hi] ¹¹	-tai?	‘dormir’	‘sleep’
(55)	háñ	-hēn	‘carne’	‘meat’
(56)	muri[hi]	merē	‘murciélago’	‘bat’

Harakmbut–Katukina–Arawan grouping

Jolkesky (2011)



SUBGRUPOS DO PAKH	% de retenção lexical	divergência temporal	data de fissão
PA	76	2,14	130 a.C.
HA	76	2,14	130 a.C.
KA	66	2,87	860 a.C.

Harakmbut oral literature

Any clues to a shared ancestry with peoples now living north-east, in the Brazilian states Acre and Amazonas?

Not really...

- Cosmogony: Tree of salvation (*Anamey*): origin of the 7 clans, which each went their way in 'mythical' times (maybe some ended up in Brazil)
- More recent history: rubber baron Carlos Fitzcarrald entered Harakmbut territory in 1890s, captured many Harakmbut (Toyeri), and sold these in Brasil
 - (time window too shallow for diversity)

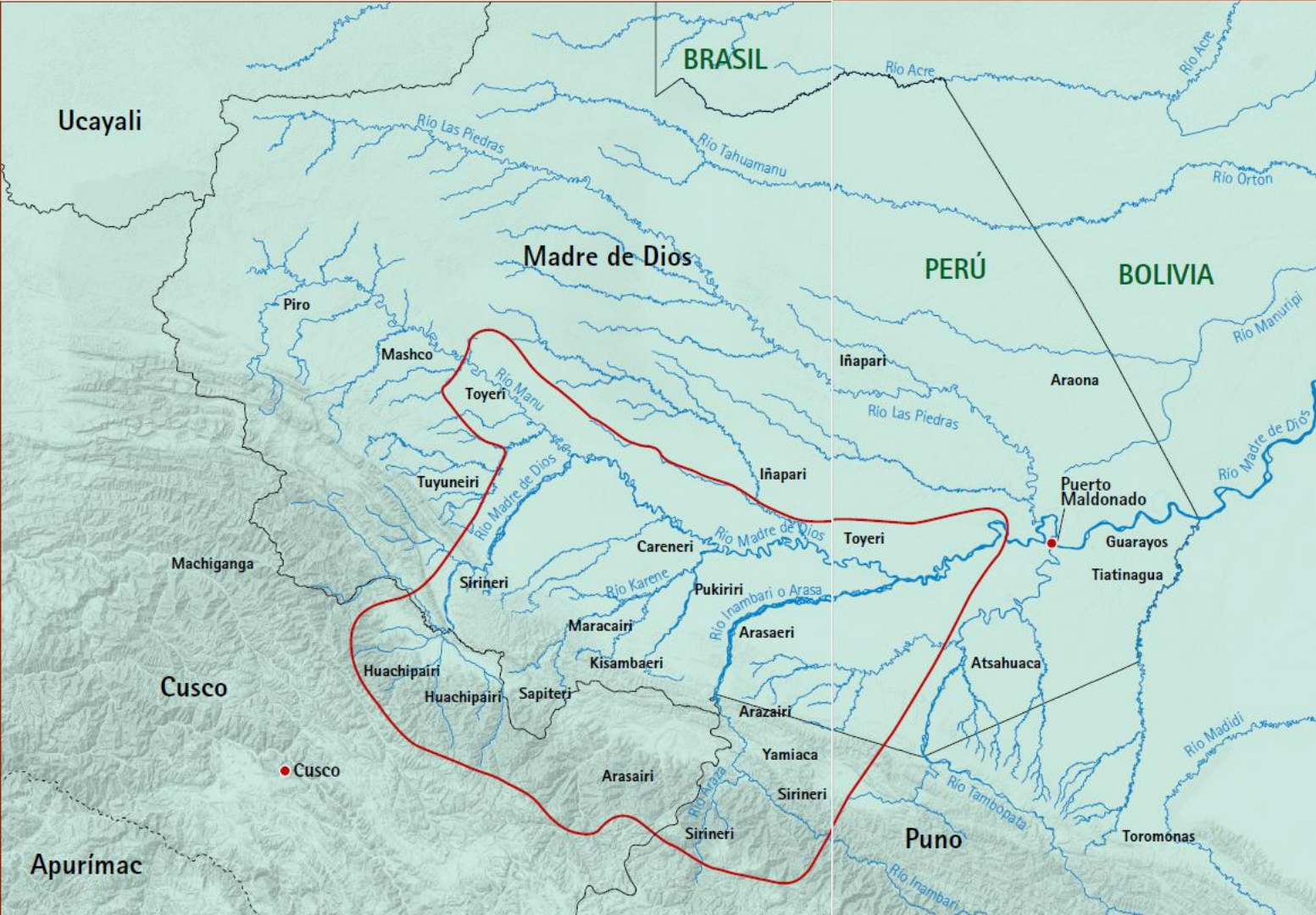
Harakmbut oral literature

Any clues to a shared ancestry with peoples now living north-east, in the Brazilian states Acre and Amazonas?

Rather indications of homeland in Madre de Dios, Cusco and Puno:
[shared with Arawakan, Takanan and Panoan groups]

- Children would be given hailstones as elixir of life
- Combat tactics for mountainous areas
- Story about encounters with Inca (also in Lyon's work on Watipaeri)
- hydronyms in homeland: Harakmbut names (Wāsōrōkwē, Isĩrĩwē, Karene, Eori)

Inca traded bronze axes for feathers with the Harakmbut (cf. Gray 1996: 58)



MAP: Harakmbut territory 1800-1920 (Moore 2020: 144-145)

Scientific expeditions in Madre de Dios as of 1537, but reference to Harakmbut only in early 18th C (Moore 2020: 125-155)

Morphosyntax: comparison of grammatical descriptions

Noun phrase:

- Noun classes
- Adnominal possession
- Adjectives

Verb phrase:

- Verbal template
- TAM coding distinction
- Evidentiality
- Noun incorporation

Simple sentence:

- Clause types
- Grammatical relations: head marking
- Grammatical relations: case marking

Complex sentence:

- Clause linking
- Relative clauses

Morphosyntax: comparison of grammatical descriptions

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- Relative clauses

NP - adnominal possession (human possessors)

	Inalienable possession	Alienable possession
KatKan	Pron. Psor: Psor-Psed Nom. Psor: Psor-CASE=Psed	Pron. Psor: Psor=GenericRelNoun Psed Nom. Psor: Psor-CASE=GenericRelNoun Psed
Har	Pron. Psor: Psor-GEN-Psed OR Psor-GEN NPF-Psed Nom. Psor: Psor-GEN-Psed OR Psor-GEN NPF-Psed	Pron. Psor: Psor-GEN Psed Nom. Psor: Psor-GEN Psed
Ara	Pron. Psor: Psor-Psed Nom. Psor: Psor Psed	Pron. Psor: Psor-Linker Psed Nom. Psor: Psor Linker Psed

NP - adnominal possession (human possessors)

	Inalienable possession		Alienable possession	
	Pron. Psor	Nom. Psor	Pron. Psor	Nom. Psor
KatKan (Queixalós Forthc.)	<i>Yuk-ukpü</i> 1SG-child 'my child' (Katukina)	<i>[[Hanani-na=] okpu]</i> Hanani-CASE= child 'Hanani's child' (Katukina)	<i>nu= wa puaku</i> 2SG= GRN paddle 'your paddle' (Katukina)	<i>[[[Kuntan-na=]NP wa]NP puaku]NP</i> Kuntan-CASE= GRN paddle 'Kontan's paddle' (Katukina)
Har (Van linden 2023b)	<i>ndoʔ-edn wa-ʔi</i> 1SG-GEN NPF-foot 'my foot'	<i>Lupeʔ-edn wa-ʔi</i> Lupe-GEN NPF-foot 'Lupe's foot'	<i>ndoʔ-edn hak</i> 1SG-GEN house 'my house'	<i>Lupeʔ-edn hak</i> Lupe-GEN house 'Lupe's house'
Ara (Vogel, in prep)	<i>u-umahiri</i> 1SG-odor 'my odor' (Suruahá)	<i>Kawakani ahady</i> Kawakani father 'Kawakani's father' (Suruahá)	<i>iri uda</i> <i>his house</i> 'his house' (Suruahá)	<i>jara iri uda</i> jara his house Jara's house (Suruahá)

Van linden & Ferraz Gerardi (2023)

NP - adnominal possession (human possessors)

	noun/pronoun split	Alienability split
KatKan	✓ (case for nominal possessors)	✓
Har	✗	✗
Ara	✗ (but pronominal possessors are bound)	✓

NP - adnominal possession: possessor markers

	Katukina	Kanamari	Harakmbut	Jarawara	Kulina	Paumari	Suruahá
1.SG	<i>yu(k)-</i>	<i>(h)i-</i>	<i>ndoʔ-edn</i> ¥	<i>o-</i>	<i>o-</i>	<i>o- -na</i>	<i>(aru) na</i>
2.SG	<i>nu-</i>	<i>no-</i>	<i>on-en</i> ¥	<i>ti-</i>	<i>ti-</i>	<i>i- -ni</i>	<i>ara</i>
3.SG	<i>(h)a-</i>	<i>(h)a-</i>	<i>ken-en</i> ¥	<i>hinanka*</i>	<i>po-</i>	<i>-ni</i>	<i>iri</i>
1.PL	<i>tyu-</i>	<i>tso-</i>	<i>oroʔ-edn</i> ¥	<i>ota:</i> (EXCL) <i>e:</i> (INCL)	<i>i-</i>	<i>a- -na</i>	<i>(ari) ja</i>
2.PL	<i>na-</i>	<i>Idiki na-</i>	<i>opudn-en</i> ¥	<i>te:</i>	<i>ti-^{**}</i>	<i>ava- -ni</i>	<i>timia ini</i>
3.PL	<i>ma-</i>	<i>ma-</i>	<i>ken-en</i> ¥	<i>me:</i>	<i>po-^{**}</i>	<i>va- -na</i>	<i>madi iri</i>

*Animate.

¥Genitive marker.

**Plural marker omitted.

NP - adjectives

KatKan: no separate word class → property-denoting elements are verbs or nouns (Queixalós Forthc.)

Har: separate word class (Van linden 2023a: 457-458)

Ara: relatively small closed class (Jarawara 14, Suruwahá 3), otherwise verbs are used (Vogel, in prep)

Verb Phrase - Morphological template

KatKan:

PERS | APPL | DISLC | (INCORP.N) **STEM** | DIR | REFL | CAUS | NEG | NMLZ/DEP/DUR

“Verbal words usually allow the concatenation of only a small number of affixes (Up to two in naturally occurring discourse).” (Queixalós Forthc.)

Har:

MOOD+AGR | APPL | CLF/INCORP | CAUS.SOC | **STEM** | ASP | TRNS | ASP/AM | AVRT | ASP | TNS | MOOD+GR/MOD/EVID
(Van linden 2023a: 461)

Ara (Jar):

O | S/A/CS | PRON/APPL/CAUS | **STEM** | AUX | SUF₅₆ | TM | PRON | SECV | IF | TM/NEG/MOOD
(Dixon 2004)

Verb Phrase - Noun incorporation

KatKan (Queixalós Forthc.):

- incorporated noun: placed before the simple verb stem to form a complex verb stem (no intervening element is allowed)
- Only NI Type I (Mithun 1984)
- (also postpositions incorporate into verb → applicatives)

Har:

- IN need not be adjacent to the verb stem (sociative causative marker and/or spatial prefixes may intervene) (Van linden 2023a: 461)
- All four types of NI (Mithun 1984) (cf. Rose & Van linden 2022; Van linden 2023a)
- only bound nouns get incorporated (with one exception: *hak* 'house') (Rose & Van linden 2022)

Ara: no noun incorporation (Dixon 2004; Vogel, in prep)

Simple sentence - Grammatical relations: head marking

KatKan: ergative alignment (recent pattern) (Queixalós Forthc.)

- intransitive verbs go uninflected for person
- transitive verbs go uninflected for person if the subject is in external NP (Queixalós Forthc.)

Har: hierarchical indexation (Van linden 2023a)

- all verbs go inflected for person
- transitive verbs showing a hierarchical indexation system in which speech act participant O-arguments trigger relational person prefixes (pragmatic skewing – Heath 1998)

Ara: different types of alignment depending on grammatical category indexed (Vogel, in prep)

- **Person** agreement on verbs is nominative-accusative in all the languages
- **Number** agreement is ergative-absolutive when coded by suppletive verbs in Kulina and Jarawara, with different stems for singular, dual and plural (number category of S/O)
- **Gender** agreement on verbs differs across languages, e.g. determined by discourse factors in Jarawara and Paumarí (A vs. O-cxns), but NOM-ACC in Sorowahá

Simple sentence - Grammatical relations: case marking

KatKan: ergative alignment (recent pattern) (Queixalós Forthc.)

- A-participants realized by external NPs carry ergative marker (pronominal A's: person index on verb)
- S- and O-participants go unmarked

Har: tripartite system (Van linden 2023a: 472-473)

- A-participants carry nominative marker: differential A-marking is governed by both animacy and focus
- S-participants go unmarked (but exceptionally nominative-marked)
- O-participants carry accusative marker: animacy-based differential marking

Ara: unary accusative system (except in Paumari) (Vogel, in prep)

- O-participants carry accusative marker in Eastern Jamamadi, Kulina-Deni, Paumari, and optionally so in Suruwahá (arhaic in Jarawara)
- A-participants carry ergative marker in Paumari (unique!); marking determined by gender agreement on verb

Complex sentence - Relative clause

KatKan (Queixalós Forthc.):

- verb in relative clauses takes suffix *-nin*
- Kanamari: relative clauses are internally headed and introduced by a deictic *nyan*; head typically immediately after introductory deictic (a), but may also remain post-verbally (b)
- Katukina: “post-nominal” relatives; no introductory deictic; obligatory fronting of head (c)

a. *hi-tuhi:k* [**nyan** *tukuña* *Kadai-na=* *dahũ-dyi-nin*]
 1SG-see **DEIC** Indian Kadai-CASE= carry-VEN-**DEP**
 ‘I saw the Indian that Kadai brought.’ (Kanamari; Queixalós Forthc.)

b. *hi-tuhi:k* [**nyan** *kadai-na=* *dahũ-dyi-nin* *tukuña*]
 1SG-see **DEIC** Kadai-CASE= carry-VEN-**DEP** Indian
 ‘I saw the Indian that Kadai brought.’ (Kanamari; Queixalós Forthc.)

c. *yu-tiuk* [*dyara* *yu-tuman-nin*]
 1SG-know white.man 1SG-kill-**DEP**

Van linden & Ferraz Gerardi (2023)

‘I knew the white man that I killed.’ (Katukina; Queixalós Forthc.; his bracketing)

Complex sentence - Relative clause

Har (Van linden 2023a: 473-474):

- relative clauses are externally headed (a), (c) or adjoined (b), and verb takes suffix **-niŋ**
- Only introductory deictic when relativized noun phrase (NP-REL) is oblique (c)
- **-niŋ** marked verb takes **ACC** marking when NP-MATRIX ('antecedent') has O-role in matrix (b)

(a) *iʔ-uk-i* *siro* [*opudn-a* *on-yok-me-niŋ*] [NP-REL = object in S-REL]
1SG-search-1.IND machete 2PL-NOM 1<>2PL-give-REC.PST-REL
'I am looking for the machete that you (PL) gave me' (Van linden 2023: 474)

(b) *wambo-ta* *i-mba-uk-i* [*tareʔ* *men-ok-mbere-me-niŋ-ta*] [NP-REL = subject in S-REL]
boy-ACC 1SG-V.PL-search-1.IND manioc 3PL>1SG-SPAT:separation-steal-REC.PST-REL-ACC
'I am looking for the boys that stole manioc from me.' (Van linden 2023: 470)

(c) *mboerek* *õ-ĩrĩŋ-ã-mě* *widn* [*ken* *toto-ta* *o-arak-me-niŋ*]
man 3SG.IND-hide-TRNS-REC.PST stone 3/DIST evil.spirit-ACC 3SG.IND-kill-REC.PST-REL
'The man hid the stone with which he killed the evil spirit.' (Van linden 2023: 474) [NP-REL = instr in S-REL]

Complex sentence - Relative clause

Ara:

- relative clauses are externally headed (a)-(b) or adjoined (c), and are marked by suffixes on the verb; suffixes differ depending on whether NP-MATRIX is the subject (c) or object (b) in the relative clause (e.g. in Suruwahá):

Kulina:

- (a) awi [shite o-na-e] Ø-watia -pa
tapir shoot.with.arrow 1SG-AUX-**REL.F** 3-die-HPST
'The tapir I've shot has died.' (Dienst 2014: 247)

Suruwahá:

- (b) mahuny [idia-hady-ka] h<i>awixa-nawaky
tapir shoot.with.arrow-**REL_OBJ.M**-FOC <1PL>eat.SEQ-1PL.PST.FH
'Then we ate the tapir that I had killed.' (Dienst and Huber: forthcoming)

- (c) índio ahidi jara bus-a ady, [saro-ri] hia-zy
native son jara steal-? grow-**REL_SUBJ.M** thus-DEIC
'Jara stole the native's son who grew like this.' (Porta and Frank 1996)

Van linden & Ferraz Gerardi (2023)

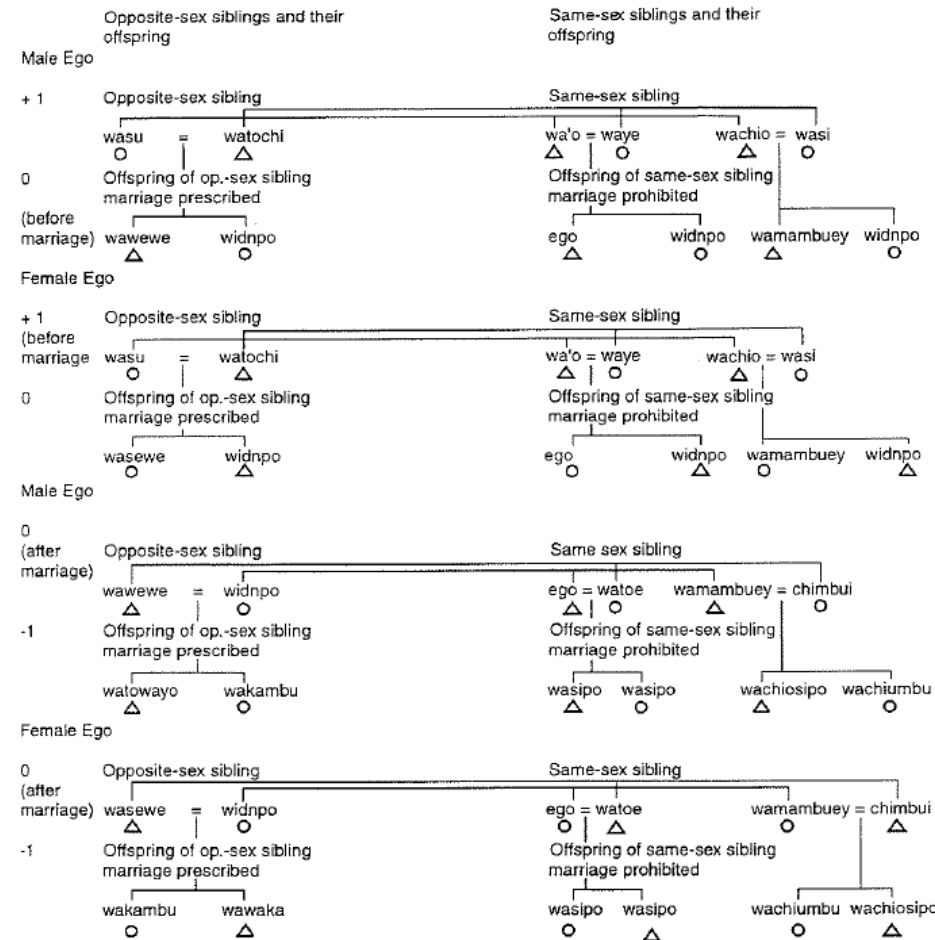
Ethnography: Social organisation

	Arakmbut	Katukina
Clan organization	• Patrilineal clans (<i>onyu</i>) • Male members of same clan would share maloca (Gray 1996: 40) • 7 clans with Arakmbut, Sapiteri, Watipaeri; no clans with Arasaeri & Toyeri (Gray 1996: 79)	• No subgroups; memories of patrilineal groups (patrilineal groups in Kanamari; also in Kulina & other Arawan groups) (Deturche 2022: 62)
Marriage	• Clan exogamy (Gray 1996: 39) • Man: bride-service to in-laws for several years before establishing his own household • Woman: changes residence once (from father to husband) (Gray 1996: 73)	• Ethnic endogamy (Deturche 2022: 66) • Arranged marriage at young age (11-12 yrs); husband moves to father-in-law's place, on whom young couple depends (Deturche 2022: 65-66)

Ethnography: Social organisation

	Arakmbut	Katukina
Marriage & sexual intercourse	• Women are not believed to contribute anything substantial to their offspring; “semen is the substance of the baby, which is shaped by the mother” (Gray 1996: 85) • Sexual intercourse between parallel relatives is forbidden (Gray 1996: 85) → aversion of duplicates • No sexual intercourse during pregnancy up until 2 yrs after birth (Gray 1996: 86)	• Sexual intercourse between parallel relatives is forbidden (Deturche 2022)

Figure 4.1 Reference Terms in Arakmbut



Harakmbut kinship terms (Gray 1996: 89)

- Classification according to genealogical level, sex and age
- Relative sex categories → same.sex.sibling vs. opposite.sex.sibling

(Gray 1996: 90)

(In this diagram = means 'married to' and not 'terminological equivalence')

Ethnography: Mythology

	Harakmbut	Katukina
Cosmogony	Anamey: Tree of Salvation (Gray 1996: 19), which kept humans & animals safe during a fire; woodpecker as Prometheus; clan names	Two heroes and brothers, Tamakori and Kirak, created everything on earth (Deturche 2009: 91) (also in Kulina), e.g. myth about the creation of white people and Tukuna from palm seeds (Deturche 2009: 312)
Rituals in pre-contact times	Men only: • Nose piercing at +/- 14 yrs (<i>isipo</i> → <i>wambo</i>) • Lip piercing at +/- 18 yrs (<i>wambo</i> → <i>wambokerek</i>) (Gray 1996: 66)	All rituals are performed by couples (husband & wife)

Conclusion

Is Harakmbut a language island?

Preliminary conclusions for **linguistic** evidence:

- Evidence for genetic affiliation is scarce for morphosyntactic properties, scarce for lexical cognacy (+ lexical evidence too similar)
- Similarities in the lexicon are probably due to contact – plausible time depth of rubber boom era

Extralinguistic evidence:

- Anthropology: Katukina and Suruwahá are culturally indistinguishable, but Harakmbut seems to be relatively different
- Archaeology:
 - Iriarte et al. (2020) suggest strong shift in population in the Brazilian area where the languages examined are located (from Geoglyphs (400 BC–AD 950) to Mound Villages (~AD 1000–1650))
 - Prümers et al.'s (2022) lidar survey reveals pre-Hispanic low-density urbanism in the Bolivian Amazon

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Ndakiti!



The Database - lexical information

Kahd (Katukinan-Arawan-Harakmbut Database)

Ferraz Gerardi et al. (2022) / (2023)

ID	DOCULECT	CONCEPT	VALUE	FORM	TOKENS	COGID	COGIDS	MORPHEMES	BORROWING	NOTE
13527	Amarakaeri	MAIZE	toket	toket	t o k e t	1982	2221	MAIZE		
12475	Apurinã	MAIZE	kemi	kemi	k e m i	105 ⁷	105 ⁷	MAIZE	YES	Loan of Arawan origin
12337	Arasairi	MAIZE	sinke	sinke	s i n k e	1624	1607	MAIZE		
222	Banawa	MAIZE	kimi	kimi	k i m i	105 ⁷	105 ⁷	MAIZE		
557	Deni	MAIZE	kimi	kimi	k i m i	105 ⁷	105 ⁷	MAIZE		
830	Jamamadi	MAIZE	kimi	kimi	k i m i	105 ⁷	105 ⁷	MAIZE		
1183	Jarawara	MAIZE	kimi	kimi	k i m i	105 ⁷	105 ⁷	MAIZE		
13406	Katawishi	MAIZE	iniasi	iniasi	i n i a s i	2106	2116	MAIZE		
12111	Kulina	MAIZE	tapa	tapa	t a p a	1502 ²	1483 ²	MAIZE		
12108	Paumari	MAIZE	d3aroa	d3aroa	d3 a r o a	1501 ²	1482 ²	MAIZE		
12107	Paumari_1833	MAIZE	farua	farua	f a r u a	266 ¹⁰	266 ¹⁰	MAIZE		
10677	Proto-Arawan	MAIZE	kimi	kimi	k i m i	105 ⁷	105 ⁷	MAIZE		
1954	Sorowaha	MAIZE	kimi	kimi	k i m i	105 ⁷	105 ⁷	MAIZE		

Languages: 18

Concepts: 680

Cognacy: simple (root) and partial (semantic), manually annotated