

## Grammaticalization of body part terms in Murui, a Witotoan language of Northwest Amazonia

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### 1. Introduction: Typological profile of Murui

- Murui (Búe) is a member of **the Witotoan language** family, one of the smaller language families in Northwest Amazonia (Aikhenvald, 2012; Wojtylak, 2017).
- The language is spoken by about **2,000 people** in **Colombia** and in northern parts of **Peru** (Map 1).
- **Nominative-accusative** with head marking with some elements of dependent marking; **agglutinating** with some fusion and predominantly **suffixing**.
- Grammatical relations are expressed through **cross-referencing on the verb** (with one cross-referencing position; the subject S/A), as in (1), and **a system of case marking**, as in (2). A case marker goes onto the last constituent of an NP.

(1) ini-di-omiko?<sub>PRED</sub>  
sleep-LK-2du.m  
'Are you (two males) sleeping?'

(2) [bai-e jaiga-bi-na]<sub>NP:O</sub> jiro-d-e=ta<sub>PRED</sub>  
that.FSH-CLF:G cahuana-CLF:SUBS-N.S/A.TOP drink-LK-3=REP  
'He drank the *cahuana* drink (it is said).'

- Typical clause structure is **predicate final (SV/AOV)** but ordering can be determined by pragmatic factors permitting VS and AVO constituent orders (e.g. DOM).
- **Three open word classes**: nouns, verbs, and adjectives.
- **Eleven closed word classes**: a few underived adjectives, adverbs, quantifiers/intensifiers, pronouns, demonstratives, interrogative words, number words, connectives, adpositions, interjections).
- **Three semi-closed word classes**: adverbs, time words, and number words.
- Murui word classes share numerous properties among each other – many of members of the open and closed word classes can head intransitive predicates, as in (3); only verbs can head transitive predicates, as in (2) above.

(3) buu-di-omiko?<sub>PRED</sub>  
Q<sub>1</sub>-LK-2du.m  
'Who are you (two males)?'

- Murui verbs can be strictly intransitive (S), extended intransitive (S), ambitransitive (A=S, O), and extended transitive (A, O, E).
- Rich system of **verbal morphology**, with extensive aspect markers:

**ROOT**–**ASPECT**–**CAUSATIVE**–**DIRECTIONAL**–**DESIDERATIVE**–**NEGATION**–**TENSE**–**LINKER-PERSON**=**EPISTEMIC/EVIDENTIAL**

(4) joko-ri-zai-aka-ñe-i-ti-kue=di  
wash-DUR-ANDTV-DES-NEG-FUT-LK-1sg=CERT  
'I WILL not want to go washing.'

- Structurally, Murui nouns are less 'complex' than verbs. They allow up to three structural positions (single marking, filled simultaneously, suffixes):
  - Classifiers and classifier-repeaters (up to three positions),
  - Number (plural, kinship plural, collective),
  - Case (TOP.S/A, TOP.N.S/A, LOC, ABL, INS, BEN-CAUS, PRIV).
- The head of a **simple NP** can be a single noun, which can be modified by N, Adj, Qunat, Dem, Q, and Num. The head of an NP follows the modifier, (5); no agreement within NP, (6):

(5) [i-mi<sup>PRONOUN</sup> ifo-gi<sup>HEAD</sup>]<sub>NP:POSSESSIVE</sub> (6) [bai-e<sup>DEM</sup> da-je<sup>NUM</sup> jaiga-bi<sup>HEAD</sup>]<sub>NP</sub>  
 ANA.NSP-CLF:PR.M head-CLF:OVAL that.FSH-CLF:G one-CLF:G cahuana-CLF:SUB  
 'his head' 'that one *cahuana* (drink)'

- Agreement is indicative of the distinction between an NP and an (equative) clause (a full sentence):

(7) [bi-ya<sup>NP:VCS</sup> mare-ya<sup>NP:VCC</sup>]<sub>CL.EQUATIVE</sub>  
 this.CTS-CLF:CRAFT good.ATT-CLF:CRAFT  
 'This (boat) is good (lit. this (craft) - good (craft)).'

- Within an NP, **adpositions** are always postposed to the head noun:

(8) Rubio<sub>S</sub> [Lusio<sup>HEAD</sup> dine]<sub>NP:OCALTIONAL</sub> i-ñe?<sup>PRED</sup>  
 Rubio Lucio **AT.LOC:NSP** exist-NEG  
 'Rubio isn't at Lucio's?'

(9) Clementina<sub>S</sub> [Lusio<sup>HEAD</sup> diga]<sub>NP:COMITATIVE</sub> jaai-ya<sup>PRED</sup>  
 Clementina Lucio **WITH** go-E.NMLZ  
 'Clementina went with Lucio.'

- Within a possessive NP, a dependent noun (Possessor R) precedes the head noun (Possessed D):

(10) [Fransiska<sub>R</sub> jo-f<sub>D</sub>]<sub>NP:POSSESSIVE</sub>  
 Francisca house-CLF:CAV  
 'Franciska's house'

- More complex NPs and NP heads include so-called '**headless nominal modifiers (HNM)**', which are formed from various word classes by means of classifiers; **noun head is not stated**.

(11) [kue jiko]<sub>NP:HNM</sub> vs. (12) a. kue-k<sub>NP</sub> b. ebi-k<sub>NP</sub> b. bi-k<sub>NP</sub>  
 1sg dog 1sg-CLF.REP:DOG nice-CLF.REP:DOG this.CTS-CLF.REP:DOG  
 'my dog' 'my (dog)' 'nice (dog)' 'this (dog)'

- Murui nouns and noun phrases can head intransitive predicates.

(13) **jito**<sub>NP</sub>-di-kue=za<sup>PRED</sup>  
**son**-LK-1sg=UNCERT  
 'I am **(a) son** (so it seems).'

(14) [**oo jito**]<sub>NP</sub>-di-kue=za<sup>PRED</sup>  
**2sg son**-LK-1sg=UNCERT  
 'I am **your son** (so it seems).'

## 2. Grammaticalization of Murui body part terms

*emodo* 'back', *uieko* 'face', *fuue* 'mouth', *abi* 'body', *komeki* 'heart', *ono-* 'hand', and *ei-* 'foot'

### 2.1 The domain of spatial orientation and time

#### *Body part noun emodo 'back' > 'above' and 'after'*

- *Emodo* 'back', (15), has been recruited to serve as a postposition meaning 'above'. It always requires LOC-*mo*, (16), and can also cover temporal meanings, as in (17):

- (15) a. ni-e ana [bai-e nuikito-na]<sub>o</sub> i-t-e<sub>PREP</sub>  
 Q2-CLF:G below that.FSH-CLF:G type.fish-N.S/A.TOP exist-LK-3  
 b. **emodo-mo**<sub>LOC</sub> nai-mie<sub>s</sub> ei-kobe<sub>o</sub> fiebi-kai-d-e<sub>PREP</sub>  
**back-LOC** ANA.SP-CLF:PR.M foot-CLF:ROUND.LEAF stay-INCP-LK-3  
 a. 'And beneath the water he turned into the *nuikito* fish.  
 b. (A symbol of a bird-like) claw remained **on his back**.'

- (16) i-nos [jo-fo **emodo-mo**] i-t-e<sub>PREP</sub>  
 ANA.NSP-CLF:PR.GR house-CLF:CAVITY **back-LOC** exist-LK-3  
 'The (chickens) are (located) **above** the house (i.e. roof).'

- (17) gui-ye **emodo-mo** bii! jaigabi<sub>o</sub> jiro-ye-za!  
 eat-FUT.E.NMLZ **back-LOC** come.IMP cahuana-CLF:SUB drink-FUT.E.NMLZ-EMPH  
 '**After** eating, come! (Let's) drink *cahuana*!'

#### *Body part noun uieko 'face' > '(in) front' and 'before'*

- *Uieko* 'face', in (18), covers the domain of spatial orientation meaning '(in) front', in (19-20):

- (18) [afai komini **uie-ko**]<sub>o</sub> jibui-ai-ya<sub>PREP</sub> mare-na  
 upstream people.CLF:DR.GR **face-CLF:SPHERICAL** watch-ANDTV-E.NMLZ good.ATT-N.S/A.TOP  
 'It's good to go to watch the people's **faces** from up the river.'

- (19) [jadi-e jo-fo]<sub>R</sub> **uie-ko**<sub>D</sub>NP eo jea-re-d-e<sub>PREP</sub>  
 this.CTH-CLF:G house-CLF:CAV **face-CLF:SPHERICAL** very dirty-ATT-LK-3  
 'The **front** of this house (lit. face of this house) is very dirty.'

- (20) a. jari-re **uieko-mo**<sub>LOC</sub> jaai-di-kue<sub>PREP</sub>  
 quick-ATT **front-LOC** go-LK-1sg  
 b. mei navuida rii-di-kue<sub>PREP</sub>  
 so evening arrive-LK-1sg  
 c. [oo<sub>o</sub> ki-a-no]<sub>CL:SEQUENCE</sub> jari-re **uieko-mo**<sub>LOC</sub> kakarei-zai-di-kue<sub>PREP</sub>  
 2sg see-E.NMLZ-SEQ quick-ATT **front-LOC** listen.TH-ANDTV-LK-1sg  
 a. 'I went quickly up **front**.  
 b. Well, I came (in) in the evening.  
 c. When I saw you, I went to listen up **front** (of the church).'

- Temporal anteriority is expressed by *uiekodo* (followed by the instrumental *-do*) meaning 'before':

- (21) [kue<sub>s</sub> jaai-aka-na **uieko-do**] boyiti-kue<sub>PREP</sub>  
 1sg go-DES-E.NMLZ **before-INS** urinate.FUT.LK-1sg  
 'Before wanting to leave, I will urinate.'

### Body part noun *fuue* 'mouth' > 'edge' and the classifier *-fue* 'story, narration'

- *Fuue* 'mouth', in (23), extends to cover 'edge', in (24-25). Synchronically, *fuue* has a grammatical function - a classifier meaning 'story, narration', (26). Some classifier have historically originated in full independent nouns (compounding) (Wojtylak, 2016).

(22) nai-mie<sub>VCS</sub>                    [fuue-mo<sub>LOC</sub>                    fai-rai-ma]<sub>NP:VCC</sub>  
 ANA.SP-CLF:DR.M            **mouth-LOC**                    throw-AGT-CLF:DR.M  
 'He is the initiator (lit. he - (male) thrower **into the mouth**)'

(23) [i-ye                    fuue]<sub>NP</sub>                    (24) [pataro                    fuue]<sub>NP</sub>  
 ANA.NSP-CLF:RIVER    **edge**                    pants.Sp                    **edge**  
 'river **edge**'                    'cuff (lit. **edge** of pants)'

(25) moni-**fue** (abundance-CLF:STORY) 'nourishment, economy'  
 ua-**fue** (really-CLF:STORY) 'truth'  
 riidua-**fue** (defend.E.NMLZ-CLF:STORY) 'defence'  
 ebi-re-di-**fue** (nice-ATT-LK-CLF:STORY) 'legend, (story) that is nice'  
 yeta-ra-**fue** (advise-CLF:NEUT-CLF:STORY) 'norms, laws (lit. story of advice)'

### Body part noun *abi* 'body' > 'again'

- *Abi* refers to physical body, e.g. *oo abi* (2sg body) 'your body', *jofo abi* (house-CLF:CAVITY body) 'body of the house', *ije abi* (river body) 'riven bank (area)'.
- *Abi* 'body', obligatorily followed by INS *-do*, has been recruited to serve as a postposition meaning 'again', (27); it frequently occurs with *dane* 'once more', (28-29):

(26) jaaiti-kue                    **abido**                    `pero                    **abido**                    rii-zaibi-di-kue<sub>PRD</sub>                    [[kue  
 go.FUT.LK-1sg                    **AGAIN**                    but.Sp                    `AGAIN                    arrive-VENTV-LK-1sg                    1sg  
 moo]<sub>s</sub>                    i-ya                    jira]<sub>Cl:Comp</sub>  
 father                    exist-E.NMLZ                    REASON  
 'I will go **again** (over there) but I will **again** come back, because father lives here.'

(27) oo                    kiua-na                    dane                    **abido**                    jitai-di-kue<sub>PRD</sub>  
 1sg                    see.E.NMLZ-N.S/A.TOP                    ONCE                    **AGAIN**                    need-NEG-LK-3-N.S/A  
 'I want to see you once **again** (lit. I need seeing you once **again**).'

### 2.2 The domain of 'self'

- Reflexive construction (strategy) involves the possessed *abi* 'body' to be included as part of the O NP argument in a transitive clause. *Abi* can take the O-marking but it can never be the target of a passivized verb (decatégorialization), e.g.:

(28) [kue                    **abi-(na)]<sub>O</sub>                    joko-di-kue<sub>PRD</sub>  
 1sg                    **body-N.S/A.TOP**                    wash-LK-1sg  
 'I wash myself (lit. I wash my **body**).'**

- *Abi* refers to the notion of 'self' and does not refer only to 'body' (desemanticization). Usually, it is not specified what body part a speaker refers to (e.g. 'finger', 'leg', or 'skin'; often accompanied by a gesture), in (31):

(29) Elger                    [da-ma                    **abi]<sub>O</sub>                    jai-ta-d-e<sub>PRD</sub>  
 Elger                    one-CLF:DR.M                    **body**                    cut-CAUS-LK-1sg  
 'Elger cut himself.' (lit. cut his body, referring to his finger; he did himself)**

- Murui has many lexicalized expressions with *abi*, such as:

- *abi uiño(te)* 'realize (lit. know one's body)'
- *abi ñino(te)* 'dare, be confident (lit. obey one's body)'
- *abi jano(te)* 'not to let be known (lit. hide one's body)'
- *abi moziño(te)* 'stop something bad (lit. stop one's body)'
- *abi nikai(de)* 'witness an accident in one's dream (lit. dream one's body)'

(30) [kue uru-e-nia fakai]<sub>CL.ADV</sub> [kue **abi**]<sub>O</sub> jifue-ta-di-kue<sub>PRED</sub>  
 1sg child-CLF:G-COND<sub>1</sub> time 1sg **body** cheat-CAUS-LK-1sg  
 'When I was a child, I would deceive myself (lit. I cheat my **body**).'

(31) naiyi [da-ma **abi**]<sub>O</sub> uiño-it-e<sub>PRED</sub>  
 later one-CLF:DR.M **body** know-FUT.LK-3  
 'One day he will realize (it) on his own (lit. his own **body** will know).'

The body part noun *kome-ki* (person-CLF:INHER) 'heart' is used in a similar manner with the verb *faka(de)* 'think' (not reflexive, metonymic extension):

(32) [kue **kome-ki**]<sub>S</sub> oo-mo faka-di-kue<sub>PRED</sub>  
 1sg **heart-CLF:INHER** 2sg-LOC think-LK-3  
 'I think of you (lit. I contemplate my **heart** in you).' Cf. etym. *kome-ki* (person-CLF:INHER)

### 2.3 The domain of number

- Conceptual transfer patterns from the human hands and feet to numerical concepts.
- Several 'counting systems' or 'numeral strategies' for counting (mixed word class membership):

A. **Basic underived number words** *da(je)* 'one' and *mena* 'two'.

B. **Fraternal analyzable number words** 'three' and 'four' (an idea of 'having a brother'):

*da-(je) aama-ni* (one-CLF:LEAF brother-CLF:DR.M-PRIV) 'three'  
*naga aama-ga* (EACH brother-CLF:DR.M-QUANT) 'four'

C. **Complex number words (expressions)** from 'five' onwards. It is a limited **quinary** (base-five) system for numbers up to 'twenty'. These numeral forms are complex nominal expressions that contain classifiers as derivational markers, and are based on the nouns meaning 'hand' (*ono-*) and 'foot' (*ei-*, when the hands are 'exhausted'):

(33) [(**ono-yi**) da-be-kuiro]<sub>NP</sub> (34) [(**ono-yi**) naga-fe-be-kuiro]<sub>NP</sub>  
**hand-CLF:BUSHY** one-CLF:LEAF-CLF:PEEL **hand-CLF:BUSHY** EACH-CLF:SIDE-CLF:LEAF-CLF:PEEL  
 'five (lit. one (**hand's**) leaf peel)' 'ten (lit. all of each (**hands')** leaf peels)'

(35) [(**ei-yi**) da-be-kuiro]<sub>NP</sub> (36) [(**ei-yi**) naga-fe-be-kuiro]<sub>NP</sub>  
**foot-CLF:BUSHY** one-CLF:LEAF-CLF:PEEL **foot-CLF:BUSHY** EACH-CLF:SIDE-CLF:LEAF-CLF:PEEL  
 'fifteen (lit. one (**foot's**) leaf peel)' 'ten (lit. all of each (**feet's**) leaf peels)'

- Combination of strategies A and B: The form *emodomo* 'over' is always required:

(37) [da-be-kuiro **emodo-mo** mena]<sub>NP</sub>  
 one-CLF:LEAF-CLF:PEEL **over-LOC** two  
 'seven (lit. one leaf peel **over** two)'

- When the number word surpasses 'twenty', elders often say *jaka uizi rii-ñe-d-e* (never **eyes** arrive-NEG-LK-3) 'The **eyes** are not able to see (anymore) (lit. **the eyes** do not come to see anymore).'

## 2.4 The domain of comparison

- *Emodo* 'back' (§2.1), obligatorily marked with LOC *-mo*, is used for monoclausal comparative construction (comparison of superiority). It is best interpreted as 'then/over' (Wojtylak, forthcoming).

(38) COMPAREE      STANDARD      STANDARD MARKER      PARAMETER  
 Joze<sub>vcs</sub>      [Pedro      **emodo-mo**]      aare-mie<sub>vcc</sub>  
 Jose      Pedro      **over-LOC**      long-CLF:PR.M  
 'Jose is taller **than** Pedro (lit. Jose, **over** Pedro, big (male)).'

(39) COMPAREE      STANDARD      STANDARD MARKER      PARAMETER  
 [bi-e      raai-ra-ko]<sub>vcs</sub>      [[oni      bi-e]      **emodo-mo**]      aiyue<sub>vcc</sub>  
 this.CTS-CLF:G      sit-CLF:NEUT-CLF:COVER LOCAL<sub>2</sub>      this.CTS-CLF:G      **over-LOC**      big.CLF:G  
 'This seat is bigger **than** this seat here (lit. This seat, **over** this one here, big (seat)).'

- The lexical meaning of *emodo* 'back' in comparative constructions is bleached out, resulting in a schematic, grammatical function of a standard marker of comparison.

## 3 Conclusions

- Nominal expressions give rise to grammatical forms in Murui.
- Grammaticalization of body part terms include the domain of spatial orientation, time, 'self', number, and comparison; it can involve clausal structures (lexical number words).

Table 1. Grammaticalization of body part nouns in Murui – summary

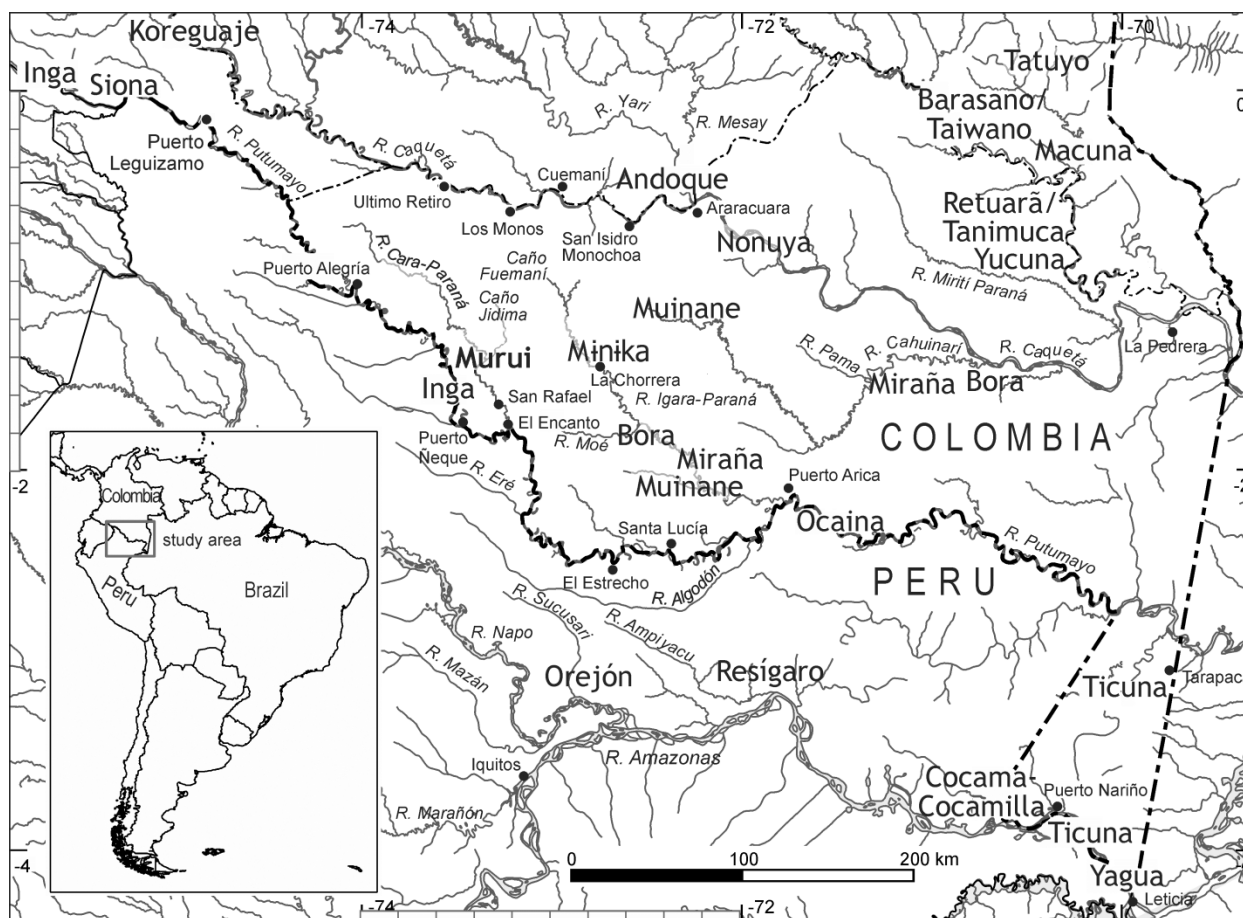
Parameters		<i>fuue</i> 'mouth'	<i>emodo</i> 'back'	<i>uieko</i> 'face'	<i>abi</i> 'body'	<i>komeki</i> 'heart'	<i>ono</i> 'hand' <i>ei</i> 'foot'
Domain	Spatial orientation (§2.1)	yes 'edge'	yes 'above'	yes 'in front'	no	no	no
	Time (§2.1)	no	yes 'after'	yes 'before'	yes 'again'	no	no
	'Self' (§2.2)	no	no	no	yes (reflexive)	some	no
	Number (§2.3)	no	yes 'over'	no	no	no	yes
	Comparison (§2.4)	no	yes 'over'	no	no	no	no
Grammatization	<b>Semantic bleaching</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>no</b>	<b>yes</b>
	<b>Decategorization</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>no</b>	<b>yes</b>
	<b>Erosion</b>	<b>yes</b>	<b>no</b>	<b>no</b>	<b>no</b>	<b>no</b>	<b>yes</b>
Status	CLF	postposition	postposition	postposition	N	number word	

## Abbreviations

1 first person; 2 second person, 3 third person; A subject of transitive verb; ANA anaphoric; ANDTV andative; ATT attributive; BEN.CAUS benefactive-causal; CERT certainty; CLF classifier; COND conditional; CTH close to hearer; CTS close to speaker; D possessed; DR derivational; DES desiderative; du dual; DUR durative; E event (nominalization); EMPH emphatic; f feminine (number); F feminine (gender); FSH far from speaker and hearer; FUT future; G generic (classifier); GR group; HAB habitual; IMP imperative; INCP inceptive; INHER inherent; lit. literally; LK linker; LOC locative; m masculine (number); M masculine (classifier); N.S/A.TOP topical non-subject; NEG negation; NMLZ nominalization; NP noun phrase; NSP non-specific; pl plural; PR pronominal; PRED predicate; PRIV privative; Q<sub>1</sub> question word *buu*; R possessor; REP reported; s subject of intransitive verb; S/A topical subject; SEQ sequential; sg singular; Sp. Spanish loanword; SP specific; SUBS substance; UNCERT uncertainty; VCC verbless copula complement; vcs verbless copula subject

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Map 1. Approximate location of the Murui speakers in Northwest Amazonia