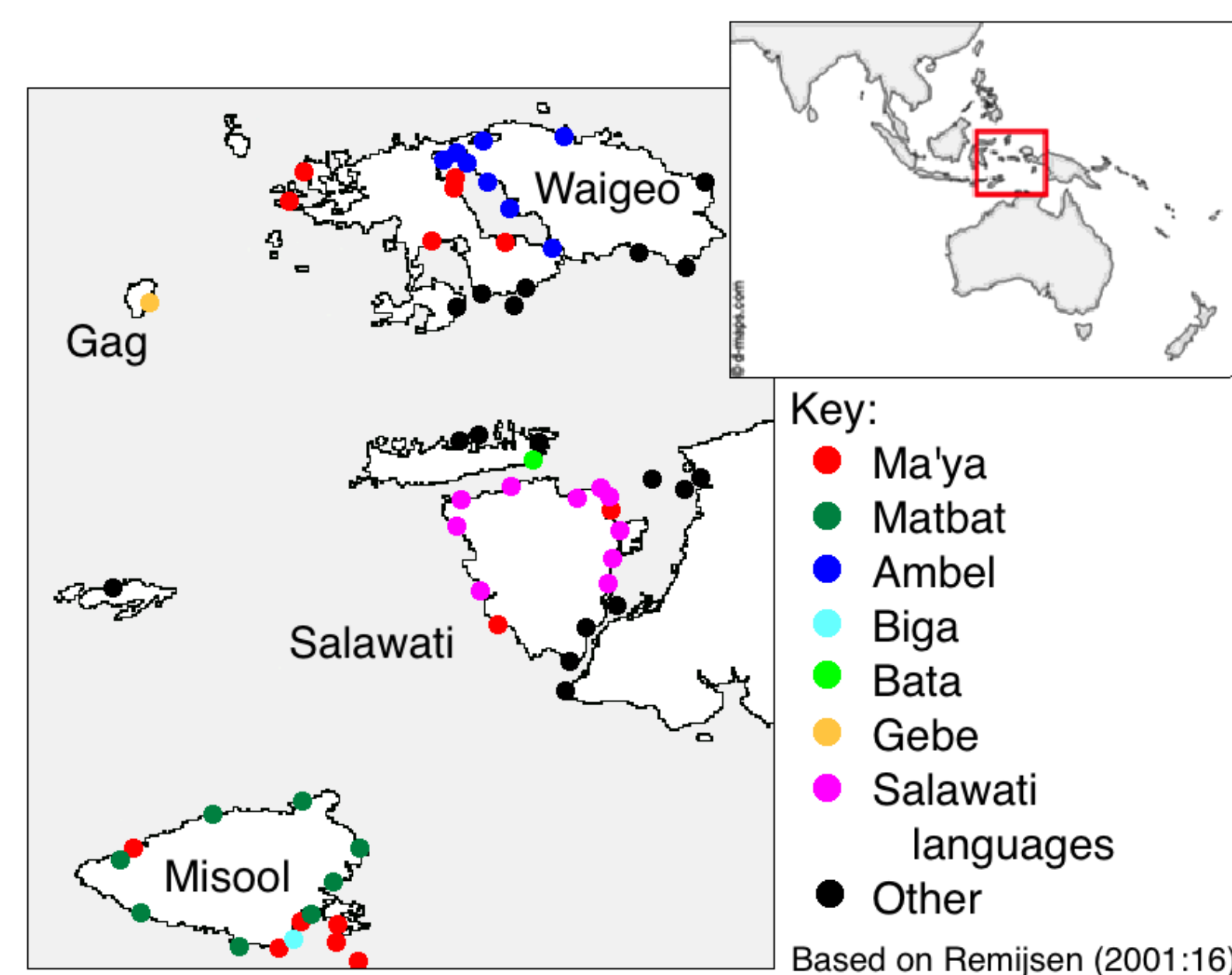


THE RAJA AMPAT LANGUAGES

- Several languages belonging to the South Halmahera-West New Guinea subbranch of Austronesian (AN) are spoken across the Raja Ampat archipelago in eastern Indonesia (see Figure 1).
- At least three of these languages have lexical tone: **Ma'ya** (van der Leeden 1993; Remijsen 2001), **Matbat** (Remijsen 2007), and **Ambel** (Arnold forthcoming).
- Lexical tone is very rare in AN languages (around 19 out of 1200 AN languages).
- Very little is known about the origin of the tonal systems of Raja Ampat languages.
 - Tone probably resulted from contact with a now-extinct tonal language, rather than developing spontaneously (Remijsen 2001).
- By comparing the synchronic tonal specifications of cognate words, several potential suprasegmental correspondences can be identified.
 - This suggests tone developed before Ma'ya, Matbat, and Ambel split.

FIGURE 1: RAJA AMPAT



THE COMPARATIVE DATA

- Monosyllabic forms identified as cognate by Kamholz (2014) were compared to see whether any informative patterns emerge in the suprasegmental phonology.
 - Three recurring patterns were observed, in which **vowel height** plays a role. These three patterns are exemplified below.
- There are currently too few cognate sets to identify any other patterns.
- Tonal splits on the basis of vowel height are very rare (Kingston 2011).
 - The f0 of close vowels is intrinsically higher than open vowels. It is therefore plausible for close vowels to develop High tone.
 - In Ambel we see the opposite effect:
 - Historically open vowel > High tone [Patterns 1 and 2]
 - Historically close vowel > unspecified for tone [Pattern 3]

Pattern 1 (10/53 cognate sets):

Ma'ya: High tone, open vowel
Matbat: High tone, open vowel
Ambel: High tone

	Ma'ya	Matbat	Ambel
'mountain'	'ye ³ l	he ³ l	íl
'person'	'ma ³ t	ma ³ t	mét
'sea turtle'	'fe ³ n	fe ³ n	fín
'three'	'to ³ l	to ³ l	túl

Pattern 2 (12/53 cognate sets):

Ma'ya: Rise tone, open vowel
Matbat: High tone, open vowel
Ambel: High tone, open vowel

	Ma'ya	Matbat	Ambel
'fire'	'la ¹² p	ya ³ p	láp
'full'	'fo ¹² n	fo ³ n	fón
'sand'	'le ¹² n	ye ³ n	láyn
'swim'	'-a ¹² s	la ³ s	lá

Pattern 3 (12/53 cognate sets):

Ma'ya: High tone, close vowel
Matbat: High tone, close vowel
Ambel: no specification for tone

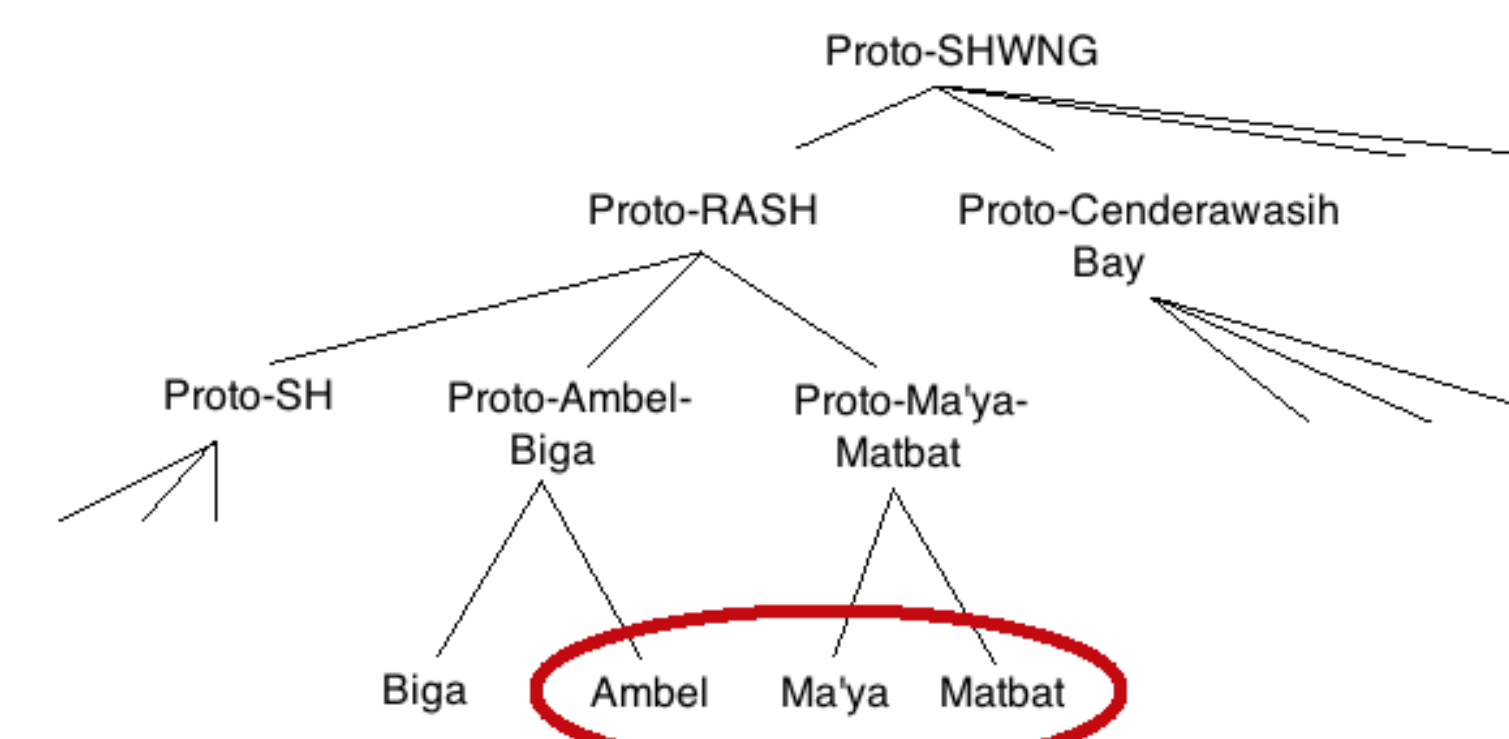
	Ma'ya	Matbat	Ambel
'breast'	'su ³ s	su ³	su
'five'	'li ³ m	li ³ m	lim
'louse'	'u ³ t	wu ³ t	ut
'two'	'lu ³	lu ³	low

THE TONAL PHONOLOGIES

- **Ma'ya (Salawati dialect):**
 - Two tonemes (Rise /¹²/ and High /³/)
 - Contrastive lexical stress in polysyllabic words
- **Matbat:**
 - Six tonemes: Extra High Fall /⁴¹/, High Level /³/, Low Rise /¹²/, Low Level /¹/, Rise-Fall /¹²¹/, and Low Fall /²¹/
- **Ambel:**
 - One toneme (High /^V/) in a privative system
 - Tone is not obligatory, but is culminative in polysyllabic words

IMPLICATIONS

- Kamholz (2014): The most recent common ancestor of Ma'ya, Matbat, and Ambel is Proto-Raja Ampat-South Halmahera (RASH), which extends beyond Raja Ampat:



- BUT:
 - No other RASH language has been analysed as tonal.
 - Did tone originate in Proto-RASH and was subsequently lost in most of the daughter languages?

- **An alternative and simpler explanation: Tone developed in a more recent common ancestor, from which (at least) Ma'ya, Matbat, and Ambel are descended.**

- Next steps:
 - Establish whether any of the other Raja Ampat languages are tonal.
 - Identify more cognate sets to further explore the histories of the complex prosodic systems of these languages.
 - Explore the phonetic role played by vowel height in tonal development.

References available on request