

## Animals and Plants for the Formosan Natives

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### Abstract

People have to live on the animals and plants that are available to them. Animals and plants are either wild or domesticated. Some are indigenous, while the others are alien and introduced to the Formosan natives at later stages, as based on linguistic evidence. Rice and millet are some of the cultivated plants that pre-Austronesian speakers must have brought with them to Taiwan from continental Asia when they arrived and colonized Taiwan 5,000 to 6,000 BP, as based on both linguistic and archaeological evidence. I shall show what animals and plants were available to the proto-Austronesian speakers, and what were introduced to Taiwan only a few hundred years ago. A list of Formosan cognates for animals and plants is given in the appendix.

*Keywords:* animal, plant, wild, domesticated;

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### 1. Introduction<sup>1</sup>

People have to live on the animals and plants that are available to them. Animals and plants are either wild or domesticated. Some are indigenous, while the others are alien and introduced to the natives at later stages.

The wild animals, such as the bear, leopard, wild pig, deer, and monkey, must have arrived in Taiwan before man did; that is, long before the last glacial age over 12,000 BP.

In the mid- 19<sup>th</sup> century, the celebrated British naturalist Alfred R. Wallace discovered that “the floral and faunal assemblages of the Greater Sunda islands closely resemble those of the Asian mainland, whereas those of the islands further to the east resemble those of Australia” (Blust 1982)[1]. This is called the “Wallace Line”. Placental mammals are found mostly west of the Wallace Line, while marsupial mammals are found only east of the Wallace Line. The Wallace Line was then extended to include Borneo and Taiwan. Placental mammals include the pig, ruminant sp. (deer, cattle, goat), monkey, leopard cat, hare, civet, otter, and pangolin in Taiwan. Blust (1982) argues that the distribution of the cognate terms for placental mammals in Austronesian languages in conjunction with subgrouping points to the west of the Wallace Line as the Austronesian homeland.

In short, animals and plants are not only the main sources of food consumed by people, but their distribution also sheds light on human migration.

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## 2. Linguistic evidence

Linguistic evidence indicates that some animals and plants were available to the Formosan natives at the early stage of Proto-Austronesian, ca. 5,000 BP or earlier. These animals include PAN<sup>2</sup> \*wasu ‘dog’, \*beRek ‘domesticated pig’, \*babuy ‘wild pig’, \*(qa)Nuang ‘deer’<sup>3</sup>, \*luCung ‘monkey’, \*qaRem ‘pangolin’, \*(ku)labaw ‘rat’, \*SulaR ‘snake’, \*Sanaq ‘otter’, \*qayam ‘bird’, \*baRuj ‘dove sp.’, \*punay ‘dove sp.’, \*tikuRas ‘partridge’, \*tuNa ‘eel (fresh water)’, \*qaCipa ‘river tortoise’. A few cognates are attested only in Formosan languages without any external evidence, e.g., the large land animals \*Cumay ‘bear’ and \*likuNaw ‘leopard’. These two Formosan cognates are not attested in any of the Malayo-Polynesian languages outside Taiwan, although these two animals are also found in Borneo. Two birds, \*RiNaS-an ‘male pheasant’ and \*SiSiN ‘omen bird’, are geographically restricted and found only in Taiwan. Consequently, these two Formosan cognates also have no external evidence.

The marine life includes PAN \*kaRang ‘crab sp.’, \*kaNasay ‘mullet (adult)’, \*paRiS ‘stingray’, \*qiSu ‘shark’ (Blust 1985)[4].

The PAN speakers also had to live and bear with the parasites, \*kuCuh ‘head louse’, \*CumeS ‘body louse’, \*(qa)timela ‘flea’, \*Nimatek ‘jungle leech’, \*(qaNi)meCaq ‘paddy leech’, and the unwelcome insects or creepy-crawly creatures, such as \*langaw ‘fly’, \*Sipes ‘cockroach’, \*qalu-Sipan ‘centipede’, and \*aNay ‘termite’ (Li 1991[5]). People carried lice or their eggs (\*liseqeS) and fleas (\*(qa)timela) with them without knowing it when they traveled and moved to a new land.

It is not clear if the Formosan natives ate rats and snakes in the old time, but some of them do in the modern time. Some domesticated animals were introduced to Taiwan only in the past few hundred years. For instance, carabao and horses were not introduced to Taiwan until the 17<sup>th</sup> century, e.g., Kavalan *kbayu* which is a loan from Spanish *caballo* ‘horse’.

The plants include the following edible ones: PAN \*NaCeng ‘vegetables’, \*pajay ‘rice plant’, \*baCaR ‘millet sp.’, \*beCeng ‘millet, foxtail millet’, \*zawa ‘millet sp.’, \*CebuS ‘sugarcane’, \*quSung ‘mushroom’, \*qaNuNang ‘*Cordia* spp.’, \*lukuC ‘*Asplenium nidus*’, \*ameCi ‘*Solanum nigrum*’, \*panguDan ‘pandanus’, \*apuR ‘betel chew’, and inedible but useful to make a living, or even annoying: \*biRaq ‘leaf, inedible taro, *Alocasia* spp.’, \*(za)lateng ‘nettle, *Laportea* spp.’, \*baNaR or \*banaw ‘*Smilax* spp.’, \*baNHir ‘cypress’, \*CejeR ‘plant sp., *Bischofia javanica*’, \*qauR ‘type of bamboo’, \*buluq ‘type of bamboo’, \*kawayan ‘type of bamboo’, \*Riaq ‘cogon grass, *Imperata cylindrica*’, \*quay ‘rattan’, \*puluC ‘*Urena lobata*’, \*saleng ‘*Pinus* spp., pine tree’, \*taNiud ‘mulberry’, \*tuba ‘fish poison, *Derris* spp.’, the last of which was used to catch fish. The natives used bamboos, rattan, pine tree, and cogon grass to build houses/huts, and/or make baskets, traps, etc. They also ate \*Cubuq ‘bamboo shoots’. Reflexes of PAN \*saleng ‘pine tree’ are widely attested in Taiwan and the Philippines, but not elsewhere (Blust 1982:49-50).

Rice, millet, and sugarcane were some of the cultivated plants that pre-Austronesian speakers may have brought with them to Taiwan from continental Asia, specifically western China, when they arrived and colonized Taiwan. According to Vavilov (1926[6], 1951[7]), the Chinese center of the cultivated plants includes these plants. These are the related cognates for rice: \*pajay ‘rice plant,

<sup>2</sup> Abbreviations as used in this paper are: <A, assimilation; <M, metathesis; PAN, Proto-Austronesian; PMP, Proto-Malayo-Polynesian.

<sup>3</sup> The term refers to both deer and cattle in some Formosan languages: Bun *qanvan*, Tha *qnuan*, Paz *nuaŋ* (<A, n/l), Sir *louang* ‘deer, cattle’, while it refers only to cattle in two others: RukBu *loaŋə*, Pai *luaŋ* ‘cattle’. The term refers to both deer and cattle, namely animals with \*uReng ‘horn’, excluding goat. Cattle bones have not been found in archaeological sites in Taiwan until recently. Bones of water buffalo were recently found in an archaeological site in Tainan during the iron period (Tsang, pers. comm.). There is no evidence that they existed in Taiwan any earlier.

unhusked rice’, \*beRas ‘husked rice’, \*Semay ‘cooked rice’, \*bineSiq ‘seed for next planting’, \*qeCah ‘husk of grains’, and \*zaRami ‘rice stubble’ (Blust 1985).

### 3. Wild vs. domesticated/cultivated

The number of wild animals and plants is clearly much larger than that of domesticated or cultivated. The number of domesticated animals or cultivated plants gradually increases over the time.

The domesticated animals included dogs and pigs at the PAN stage. The main function of a dog was for ‘hunting’ (\*qaNup). The archaeological evidence excavated from the archaeological sites in the Tainan Plains indicates that the natives treated a dog as their important companion, as it was buried like a human being.

The word for ‘chicken’ is not reconstructible at the PAN level. But it could probably be reconstructed as Formosan \*teRakuk vs. PMP \*manuk ‘chicken’. Although the cognate forms for ‘duck’ are attested in Paiwan *bibiq*, Sai *bibi*, Taokas *bibi* < PAN \*bibiq, they sound like a case of onomatopoeia. Taiwan did not have any cat until rather late, and it was not domesticated until recently. The forms for ‘cat’ are mostly onomatopoeic in Formosan languages, such as *ngiaw* or the like.

It is not always clear at what stage a certain animal or plant was domesticated. The plant \*taNiuD ‘mulberry’ was probably not cultivated until recently. Formosan natives enjoy its fruit.

Except for the plants mentioned above, most cultivated plants in Taiwan were not introduced to Taiwan until a few hundred years ago. Their cognate forms cannot be reconstructed at the PAN level. These cultivated plants include potato, sweet potato, taro, corn/maize, pumpkin, cucumber, bottle gourd, sponge gourd, banana, guava, papaya, pineapple, coconut, mango, plum, peach, pear, persimmon, loquat, water melon, sesame, eggplant, tomato, garlic, pepper, ginger, cinnamon, beans, peas, peanut, hemp plant, etc. (Tsuchida 1976)[8]. In fact, many of them are not reconstructible at all.

Some of the cultivated plants came originally from the Americas (Vavilov 1926, 1951, Lee 2013[9]), and so did a few domesticated animals, such as turkey. Hence they were not introduced to Taiwan until after Columbus discovered the Americas in 1492. These cultivated plants include potato, sweet potato, peanut, corn, bean (string bean, Sierra bean), pumpkin, pepper, onion, garlic, asparagus, celery, olive, papaya, tomato, guava, strawberry, custard apple, and tobacco. There are three possible routes from Americas to Taiwan: (1) via the South Pacific islands, (2) via Europe and China, Japan or Java, and (3) via Spain and the Philippines (Lee 2013).

### 4. Archaeological evidence

Some historical linguistic reconstructions are confirmed by archaeological evidence. For instance, a fair amount of rice and millet unearthed from the archaeological sites in Tainan Science Park have been dated 5,000~3,300BP (Tsang 2012)[10]. The cognates for rice are well attested in all the major subgroups, while two cognates for millet (\*beCeng and \*zawa) are attested only in languages in the south (Rukai and Puyuma). Both linguistic and archaeological evidence indicates that there is an uninterrupted history of rice planting by the Formosan natives, whereas millet planting may have been discontinued about 3,000 BP.

## 5. Using plants for different purposes

The Formosan natives have used plants for different purposes. In addition to consuming the edible plants for food, some plants are also used for medical purposes, e.g., both \*NataD ‘Formosan elderberry’ (*Sambucus formosana Nakai*) and ‘cape jasmine’ (*Gardenia jasminoides Ellis*) are used to reduce infection, and \*DakeS ‘camphor laurel’ is processed for drugs. Some other plants are used for ritual ceremonies, e.g., the important role played by \*Riaq ‘cogon grass (*Imperata cylindrica, Miscanthus sienensis Anders*)’ during the *pashta’ay* ceremony of Saisiyat.

## 6. More work needs to be done

We need more specific knowledge about when and what cultivated plants were introduced to Taiwan. No single field of specialization can give a satisfactory answer to such a problem. This requires interdisciplinary study, such as linguistics, archaeology, and breeding of cultivated plants.

## References

- [1]Blust, Robert. 1982. The linguistic value of the Wallace Line. *Bijdragen tot de Taal-, Land- en Volkenkunde* 138:231-250.
- [2]Tsuchida, Shigeru (土田滋). 1977. Some plant names in the Formosan languages. *Computational Analysis of Asian & African Languages* 7:79-119. Tokyo.
- [3]Li, Paul Jen-kuei. 1994. Some plant names in Formosan languages. In Andrew Pawley and Malcolm Ross eds., *Austronesian Terminologies: Continuity and Change*, 241-266. Pacific Linguistics C-127.
- [4]Blust, Robert. 1985. The Austronesian homeland: A linguistic perspective. *Asian Perspectives* 26.1:45-67.
- [5]李壬癸(Li, Paul Jen-kuei). 1991. 〈從歷史語言學家構擬的同源詞看南島民族的史前文化〉，*《大陸雜誌》* 83.6:12-22.
- [6]Vavilov, N. I. 1926. Studies on the origin of cultivated plants. *Bulletin of Applied Botany and Plant Breeding* 26:1-248.
- [7]Vavilov, N. I. 1951. *The Origin, Variation, Immunity and Breeding of Cultivated Plants: Selected Writings of N. I. Vavilov*. New York: The Ronald Press Company.
- [8]Tsuchida, Shigeru (土田滋). 1976. *Reconstruction of Proto-Tsouic Phonology*. Tokyo: Study of Languages & Cultures of Asia & Africa, Monograph Series No.5, Tokyo University of Foreign Studies.
- [9]李遠川(Lee, Yuan-chuan). 2013. 〈哥倫布對台灣食物的影響〉，中央研究院智識饗宴系列 9:135-55。
- [10]臧振華. 2012. 〈南科考古發現的稻米與小米兼論相關問題〉，*《中國飲食文化》* 8.1:1-24。
- [11]Blust, Robert. 2002. The history of fauna terms in Austronesian languages. *Oceanic Linguistics* 41.1:89-139. *Austronesian Comparative Dictionary*. Online: [www.trussel2.com/acd](http://www.trussel2.com/acd).
- [12]Wolff, John. 2010. *Proto-Austronesian Phonology with Glossary*. Ithaca: Cornell Univ.

## Appendix. List of Formosan Cognates for Animals and Plants<sup>4</sup>

### Animals:

- \*qaRem > AtaMx *qagum*, Tso *hi-arm-uza*, Kan *kani-arum-ai*, Sar *arəmə*, Bun *qalum*, Pai *qam*, Tha *qalhum*, Sai *ʔæLəm*, Paz *azəm*, Ami *qaləm*, Kav *iRəm* ‘anteater’
- \*(qa)Nuang > Kan *ʔi-nuaŋə* ‘female deer’, Sar *ta-i-luaŋə* ‘female muntjac’, Bun *qanvaŋ*, Tha *qnuan* (< A n/4), Paz *nuay* (<A n/l), Sir *louay* ‘deer, cattle’; RukBu *loayə*, Pai *luay* ‘cattle’
- \*sakeC > Tso *taʔəcə* (*t-* irregular), RukBu *akəcə*, Bun *cakut*, Pai *takəc*, Tha *takiθ*, Ami *cakət* ‘pygmy deer’
- \*wasu > RukMg *aθoo*, BunN *acu*, Pai *vatu*, Puy *su-an*, Tha *atu*, Sai *ʔæhœʔ*, Paz *wazu*, Ami *wacu*, Kav *wasu* ‘dog’
- \*titu (PAN-F) > Kan *tama-titu*, Sar *tama-titu*, Tha *titu*, Kav *titu* ‘puppy’, Paz *titu* ‘cub, young animal’
- \*babuy > Tso *fuzu*, Kan *vavulu*, RukBu *baboy*, Pai *vavuy*, PuyPn *babuy*, Ami *fafuy*, Kav *babuy* ‘wild pig’, Sed *babuy*, Bun *babu*, Tha *fafuy*, Sai *babuy*, Ami *fafuy*, Kav *babuy*, Sir *vaboy* ‘domesticated pig’. This term must have referred to ‘pig’ in general (Blust 2002)[11]
- \*beRek > Tso *frəʔə*, RukBu *bəəkə*, PuyKl *vəəkə* ‘domesticated pig’
- \*waNiS > Tso *xisi*, Kan *anisi*, RukTa *valise*, Bun *vanis*, Sai *walif*, Paz *walis*, AmiSa *wadīs* ‘boar’s tusk’
- \*waNiS-an > RukTo *valis-anə*, Bun *vanis*, Sai *walif-an*, Tha *wadif* ‘wild pig’
- \*luCung > Bun *hutuy*, Puy *Lutuy*, Tha *ruθun*, Sai *Losoy*, Ami *lutuy*, Kav *Rutuy*, Sir *routoy* ‘monkey’
- \*Cumay (PAN-F) > Tso *cmoi*, Bun *tumaz*, Pai *cumay*, Tha *thumay*, Ami *tumay*, Kav *tumay* ‘bear’
- \*lukeNaw (PAN-F) > Ata *ak-liʔ*, Sed *rkel-ic*, Tso *rʔiho*, Kan *ukunau*, Sar *lukulhu*, Bun *huknaw*, Pai *Lukljaw*, Puy *Likulaw*, Tha *rukðaw*, Sai *Loklaw*, Ami *lukdaw*, Kav *ruqnaw* ‘leopard’  
Note: Both Rukai and Puyuma reflect \*i for the first vowel.
- \*Sidi (PAN-F) > Bun *sidi*, Pai *sizi*, Puy *siri*, Tha *sisi* (<A), Sai *firi*, AmiSa *sidi*, Kav *sizi*, Bas *sili* ‘goat’
- \*(ku)labaw > Kan *tuuŋiŋi-lavau*, RukBu *koLabaw*, Pai *kuLavaw*, Puy *kuLabaw*, AmiSa *kalabaw* (<A), Kav *m-rabaw*, Fij *kakavo* (<A) ‘rat’
- \*SulaR > RukMg *sura-a*, RukTo *soaʔ-a*, RukMn *ʔoLaʔ-a* ‘snake’
- \*qayam > Tso *zomə*, Sar *aʔamə*, RukBu *aðaðamə*, BunC *qaðam*, Pai *qaya-qayam*, PuyPn *ʔayam*, Paz *ayam*, Kav *alam*, Ami *qayam*, Sir *aiam* ‘bird’; Fav *adam* ‘omen bird’; Kan *alam*, Sai *ʔæyæm* ‘meat’
- \*baRuj > Tso *xo-foru*, Kan *ta-varuru* (< A), Bun *balu*, Tha *faʔuð*, Sai *baLoz*, Kav *banur* (<M) ‘dove sp.’
- \*punay > Tso *pnoi*, Kan *punai*, RukBu *ponay*, Pai *punay*, Puy *punay*, Sai *ponay* ‘dove sp.’
- \*tikuRas > BunN *tikulac*, Puy *tikuras*, Tha *tikuʔaθ*, Ami *tikulac*, Kav *tiquRis* (<A) ‘partridge’
- \*RiNaS-an (PAN-F) > AtaMx *gila-quy*, Sed *gla-qan*, Bun *linas*, Tha *ʔiðaʔ*, Sai *Lilaʔ-an*, Paz *xilas-an* ‘male of blue pheasant’

<sup>4</sup> While most of these cognates can be traced back to proto-Austronesian, a few are not attested outside Taiwan, such as \*Sidi ‘goat’, \*waNiS ‘tusk of wild pig’, \*RiNaS-an ‘pheasant’, \*Sanaq ‘otter’, \*DakeS ‘camphor laurel’, and \*NataD ‘Formosan elderberry’. Blust labels it as “PAN-F” in his Austronesian Comparative Dictionary, assuming that they are reconstructible at PAN level, but lost outside Taiwan.

- \*taRekuk (PAN-F) > Tso *troo ʔu-a*, Kan *tarikuuk-a*, Sar *turukuuk-a*, RukTa *tarokoko*, Bun *tulkuk*, PuyLp *tərkkuk*, AmiSa *tulakuk*, Kav *traquq* ‘chicken’
- \*balaCuk > Pai *vaLacuk*, Sai *baLasok*, Ceb *balalátuk* ‘woodpecker’
- \*SiSiN (PAN-F) > AtaMx *sisil-iq*, Sed *sisil*, Kan *sisiini*, Sar *iiñi*, Pai *sisilj*, Sai *ʃiʃil*, Paz *sisil*, Kav *sisin* ‘omen bird, *Garrulax canorus taewanus Swinhoe* 畫眉’
- \*labaw > Kan *tuuŋiŋi-lavau* ‘a type of large mountain rat’, Ruk *ko-Labaw*, Pai *ku-lavaw*, Puy *ku-Labaw*, AmiSa *ka-labaw* ‘rat’
- \*tuNa > AtaMx *tula-qiy*, Ruk *tola*, Pai *tjulja*, Puy *tula*, Tha *tuða*, Sai *tola*, Paz *tula*, AmiSa *tuða* ‘eel’
- \*kaRang > AtaSq *kagaŋ*, Sed *karaŋ*, Bun *kalaŋ*, Tha *kaʔan*, Sai *kaLaŋ*, Paz *kaxaŋ*, Ami *kalaŋ*, Sir *kagan* ‘crab’
- \*paRiS > Sir *pagig*, Ceb *pági* ‘stingray’
- \*qiSu > Pai *qisu*, Ceb *ihu* ‘shark’, Ami *qiso* ‘whale’
- \*Sanaq (PAN-F) > AtaMx *sanaq*, Tso *snoo*, Kan *sanaʔə*, Sar *sanaʔə*, RukTo *sana*, Pai *sanaq*, Tha *ʃanaq*, Ami *sanaq*, Kav *sani*, Fav *channa* ‘the Chinese river otter’, Sir *hanna* ‘fox’
- \*langaw > Ata *aŋaw*, Sed *raŋaw*, Ruk *a-La-Laŋaw* ‘big fly’, Pai *la-laŋaw*, Puy *ŋa-ŋaLaw* (<M), Tha *ranaw*, Sai *Laŋaw*, Paz *raŋaw*, Kav *raŋaw* ‘small fly’, Tso *t-roŋo* ‘honeybee’, Kan *taa-ŋalau* ‘gnat’
- \*kuCuh > AtaMx *kucu* (female form), Sed *qu-hiŋ*, Tso *ʔcuu*, Kan *kucu*, Sar *kucu ʔu*, Ruk *koco*, Bun *kutu*, Pai *kucu*, Puy *kuTu*, Tha *kuθu*, Sai *koso*, Paz *kusu*, Ami *kutu*, Kav *qutu* ‘head louse’
- \*CumeS > AtaMx *lum-iq* (<A), Sai *somæh*, Paz *sumah*, Ami *tumus* (<A), Kav *tuməs* ‘body louse’
- \*liseqeS > RukBu *a-Lisəəə* (<A), BunN *icqus*, Pai *ljisəqəə* (<A), Sai *Liʔfiʃ* (<A, M), AmiSa *licaʔəs* ‘nit of louse’
- \*qatimela > Tso *timro*, Kan *ʔatimua*, Sar *ʔatimula*, Pai *qatjim-tjim*, PuyKl *ʔatimLa*, Tha *qa-ti-tira*, Sai *kæ-ʔim*, Kav *timRa*, Ami *qatimla* ‘flea’
- \*Nimatek > Kan *ʔa-nimətək-a*, Sar *ʔa-ñimətək-a*, RukBu *limatək*, Pai *ljimatjək*, Puy *limatək*, AmiSa *ʔa-ñimatək-ay* ‘jungle leech’
- \*wiNi > Bun *vini*, AmiSa *wizi* ‘water leech 水蛭’
- \*(qaNi)meCaq > Sar *ʔa-ñi-maa-maca*, ‘paddy leech’
- \*aNay > RukBu *v-alay*, Paz *alay* ‘termite’, Itbayat *anay* ‘termite’
- \*Sipes > AtaMx *ha-hipux* (<D), Sai *hipih* (<A), Paz *hipət*, Kav *sipəs* ‘cockroach’
- \*qalu-Sipan > Tso *rerpa*, Kan *ʔal-alipaŋə*, Sar *ʔal-alipa*, Sai *ʔalə-ŋa-hipan*, Paz *h-ar-ipan*, Kav *Rusipan* ‘centipede’
- \*buhet > Ata *bhut*, Kan *vuútu*, RukBu *buu-buutu*, Bun *puhut* (<A), Pai *vutj*, Puy *vut*, Sai *ka-bohæt* (<A), Paz *buhut* (<A) Ami *fohət* ‘squirrel’

## Plants

- \*pajey > AtaSq *pagay*, Sed *payay*, Tso *pai*, RukBu *pagay*, Bun *pað*, Pai *paday*, Tha *paðay*, Sai *pazay*, Ami *panay*, Kav *pany*, Pap *pada* ‘rice plant, unhusked rice’
- \*beRas > Tso *fərsə*, Kan *vəra*, Sar *ə-vəraə*, RukTo *bəʔasə*, Pai *vat*, AmiSa *bəlac*, Kav *bəRas* ‘husked rice’
- \*Semay > Paz *sumay*, Ami *həmay*, Kav *ʔmay* ‘cooked rice’
- \*qeCah > RukBu *əca*, PuyKl *ʔəTa*, Tha *qθa*, Sai *kæ-ʔsəʔ*, Ami *ʔah* ‘husk of grains’

- \*bineSiq > BunTbk *binsiq*, Puy *bini?*, Sai *binfi?*, Tha *fa-finfiq*, Tagalog *binhi?* ‘seed for next planting’
- \*baCaR > AtaSk *bacax*, AtaMx *basag*, SedTr *basag*, Sai *basal*, Tao *basau* ‘millet, *Panicum miliaceum*’
- \*beCeng > Sar *?ə-vəcəŋə*, RukBu *bəcəŋə* ‘millet, foxtail, *Setaria italica*’  
 Note: The Saaroa form is probably a loan from the Mantauran dialect of Rukai *vəcəŋə* ‘millet’. If so, it is found only in Rukai.
- \*zawa > Puy *dawa* ‘millet, *Setaria italica*’  
 Note: This cognate is found only in one Formosan language.
- \*balaysan (PAN-F) > Sed *brisan*, Puy *balaysan*, Ami *balaysan* ‘sorghum’
- \*tebuS > Tso *təfsə*, Kan *təvəsə*, Sar *i-təvə*, RukMg *tbusu*, Bun *cibus*, Pai *tjəvus*, Sai *ka-tbof*, Paz *tubus* (<A), Ami *təbus*, Kav *təbus* ‘sugarcane’
- \*qauR > AtaMx *qau-a-g*, Tso *oru*, Kan *?auru*, Sar *?auru*, Bun *qaul*, Pai *qaul*, Tha *qauʔ*, Sai *?ææL*, Ami *qaul*, Kav *iuR* ‘bamboo, ‘bamboo, *Bambusa* spp’
- \*buluq > RukTa *bolo*, Pai *vuljuq*, PuyPn *buLu?*, Sai *boLæ?*, Paz *buru*, Ami *fuluq*, *Bambusa* spp’
- \*kawayan > RukBu *kavaðanə*, Pai *kavayan*, Puy *kawayan* ‘bamboo, *Bambusa spinosa* spp’
- \*quay > Ata *qwa-ni*, Sed *qwa-rux*, Tso *ue*, Kan *?uai*, Ruk *ovay*, Bun *quað*, Pai *quay*, Puy *?uay*, Tha *quay*, Sai *?əay*, Paz *way*, Ami *qoay*, Kav *uay*, Bas *uay*, Bab *choa*, Sir *uweg* ‘rattan’
- \*biRaq > RukTa *bia*, Puy *bira?*, Sai *biLæ?*, Tha *fiʔaq*, Kav *biRi*, Tao *bixax*, Bab *bia* ‘leaf’, RukTo *bi?a* ‘Alocasia’
- \*tuba > AtaSq *tuba*, SedTr *tuba*, Sai *ta-toba*, Paz *ta-tuba*, Jav *tuba* ‘fish poison, *Derris* spp 魚藤’
- \*panguDaN > Kav *paŋzan* ‘pandanus’, Ata *paŋran*, RukBu *paŋoDalə*, Pai *paŋuDalj*, Puy *paŋuDal*, Sai *paŋran* ‘pineapple’
- \*lukuC > RukBu *Lukucu*, Pai *ljukuc*, Puy *LukuT*, Ami *lukut* ‘parasitic plant sp., *Asplenium nidus* 山蘇’
- \*Riaq > Tso *v-rio*, Kan *rəə?ə*, Sar *əʔəʔa*, Bun *liaq* ‘cogon grass, *Imperata cylindrica* 白茅’
- \*qaRisam > Tso *resmə*, Sar *?ariam*, BunIs *haslam* (<M), Sai *?æLəhæm*, Kav *qiisam* ‘miscanthus stalks, stems of cogon grass’
- \*Daqu > Kan *caa?u*, Sar *caa?u*, RukTo *Daw*, Bun *daqu*, Pai *zaku*, Puy *Da?u*, Ami *raqu* ‘soapberry (*Sapindus mukorossi*) 無患子’
- \*baNaR > AtaMx *balag*, SedTd *balaw* ‘*Smilax opace*’, Tso *fkorə* ‘*Smilax china*’, Kan *vanarə*, Sar *valharə*, RukTo *bala?ə* ‘*Smilax oxyphylla*’, Bun *banal* ‘*Smilax opace/china*’, Pai *valja*, Tha *fa-faʔəð* ‘*Smilax china*’, Sai *ba-bala*, Kav *banaR*, Ilk *banag*, Btk *banal* ‘*Smilax bracteata* 台灣菝葜’ (Tsuchida 1976:140)
- \*baNhiR > Tso *fahri*, RukBu *baali* ‘cypress 柏, 檜’; Sar *vaʔiri*, Pai *vali* ‘board’; Bun *banhil* ‘cypress, board’; Mal *banir* ‘buttress-like projection from a tree-trunk’ (Tsuchida 1976:140)
- \*CeŋeR > Sar *cəŋəʔə* ‘type of plant with red sap’, Pai *cəŋuu* ‘dye yam (*Discorea rhipogonioidei*) 薯榔’, Ceb *tuyug* ‘kind of mangrove, the bark of which is used for dyeing’ (Wolff 2010[12])
- \*quSung > AtaMx *qhuy*, Tso *uŋo*, Kan *uŋu*, Sar *u?uŋ-a* (<M), RukMn *?oŋo*, Bun *quuy*, Ilk *uoy* ‘edible mushroom’
- \*saleng > AtaMx *hauy* (female form), Sed *haruy*, Tso *sroŋə*, Kan *aləŋə*, Sar *aləŋə*, RukBu *aLəŋə*,

- BunN *caəŋ*, Pai *tarəŋ*, Tha *tarin*, Sai *hæLəŋ*, Ami *caləŋ*, Ilok *saleŋ* ‘pine tree’
- \*taNiuD > AtaSq *tliuʔ*, Tso *tahzucu*, Kan *taniucu*, Sar *taʔusu*, RukBu *talioDo*, Itb *tanjud* ‘mulberry tree’
- \*ameCi > Tso *mici*, Kan *m-amici*, Sar *ʔ-amici*, RukBu *amici*, Pai *s-amci*, PuyKl *ʔamTi*, Tha *q-amθi*, Btk *amti* ‘*Solanum nigrum* 龍葵’
- \*laCeng > Sai *kæh-Lasəŋ* ‘stinging nettle, *Laportea spp.* 咬人狗’  
 Note: The cognate is found in only one Formosan language
- \*puluC > Kan *puucu*, Puy *puLuT* ‘*Urena lobata*’, Tso *ta-prucu* ‘a species of grass whose seeds easily stick to clothes in a line’
- \*Cubuq > Kan *cuvuʔi*, Sar *cuvuʔi*, Pai *cuvuq* ‘bamboo shoot’; RukMn *ʔa-cuvu* ‘treetop’; To *tupu* ‘to grow up’
- \*qaRa > AtaMx *qaaʔ*, Sai *ʔæLaʔ* ‘*Alsophila pustulosa*, type of fern’; Old Jav *hara* ‘*Focus spp* 蛇木’
- \*tanaq (PAN-F) > Tso *tnoo*, Tha *ta-tanaq*, Kav *tani*, Ami *tanaq* ‘plant sp., *Aralia decaisneana* Hance 刺楸’
- \*NayaD (PAN-F) > AtaMx *layaʔ*, Tso *xzocə*, Kan *nalacə*, RukBu *laLaDə*, Bun *naða*, Pai *ljayaz*, Puy *layaD*, Sai *layar*, Kav *layas*, AmiSa *ðayas* ‘*Ebulus formosana* 冇骨消’
- \*Samaq (PAN-F) > Kan *samaʔə*, Ruk Bu *sama*, Bun *samaq*, Pai *samaq*, PuyKl *amaR*, Tha *famaq*, Paz *sama*, Kav *sami*, AmSa *samaq* ‘*Lactuca indica* 萵苣’
- \*DaRa (PAN-F) > AtaMx *ragaʔ*, SedTn *dara*, Bun *dala*, Tha *ʔaʔa* (<A), Sai *raLaʔ*, Paz *daxa* ‘maple tree 楓’
- \*DakeS (PAN-F) > AtaMx *rakus*, Tso *cʔosə*, kan *cakəsə*, RukBu *Dakəsə*, Bun *dakus*, Pai *Dakus*, Puy *Dakəs*, Tha *fakif* (<A), Sai *rakəf*, Paz *dakəs*, Kav *raqəs*, AmiSa *rakəs* ‘camphor laurel 樟’
- \*bangaS (PAN-F) > Tso *fʔosə*, Kan *vanəsə*, Sar *vanəə*, RukBu *banəsə*, Pai *vanəs* ‘*Melia azedarach* 苦苓樹’
- \*keRiw (PAN-F) > AtaMx *kgyi*, SedTr *kərig*, BunTbn *kaliv*, Puy *kəriw*, Tha *kʔiu*, Sai *ka-kLiw*, Paz *kixiw*, AmSa *kəliw*, Kav *qəRiw* ‘hemp plant’