

Bananas of Samoa

A catalogue of banana diversity seen on the island of Upolu



Gabriel Sachter-Smith and Julie Sardos

Table of Contents

Collection Expedition Notes pg. 3

Regional Map pg. 4

Collected specimens pg. 5

Non-collected specimens observed pg. 22

Index pg. 41

Cover photos: 'Fa'i Samoa Lanu Viole', 'Fa'i Samoa Au Pupuka' held by farmer Siosi Paio, 'Fa'i Mamae Upolu'.

Collection Expedition Notes:

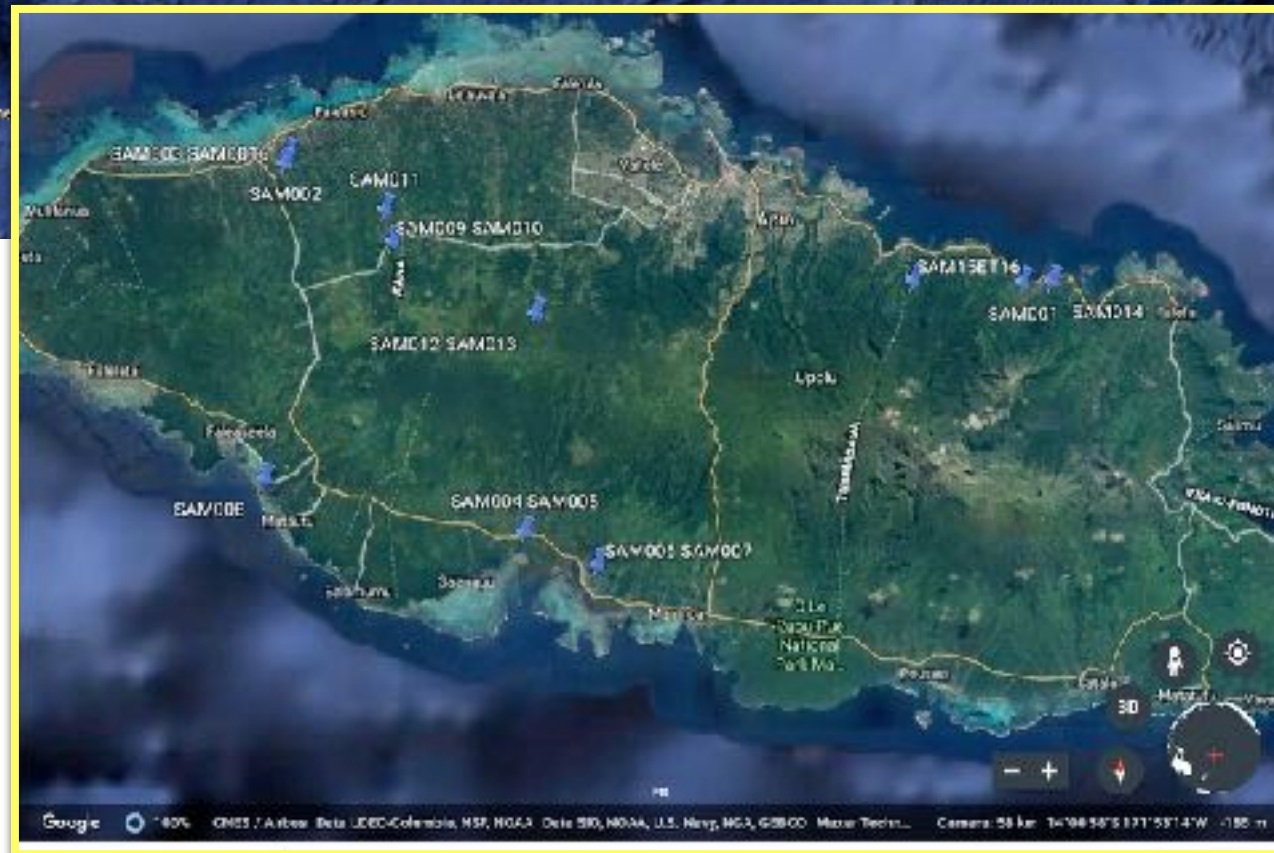
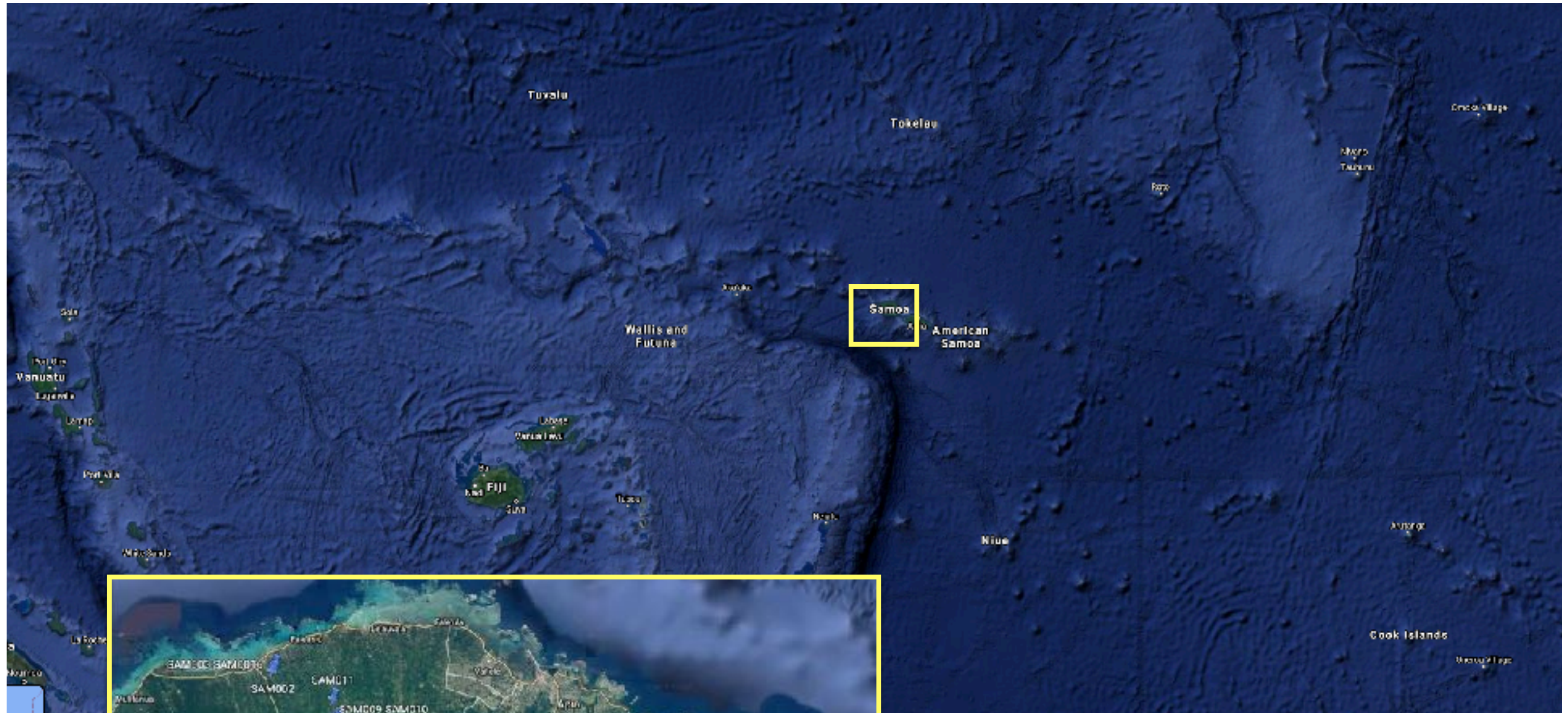
This field exploration took place in Samoa from July, 22nd 2019 to August, 2nd 2019. The project was co-organized by the Alliance of Bioversity International and CIAT, the Ministry of Agriculture and Fisheries of Samoa (MAF) and The Pacific Community (SPC). The collecting team was composed of Dr. Julie Sardos, Mr. Gabriel Sachter-Smith, Ms. Arshni Shandil, Mr. Parate Matalavea, Mr. Anesone Vaai and Mr. Polito Keni. The team was not able to visit Savai'i island as initially planned due to administrative issues. This catalogue therefore presents the diversity of the bananas collected and observed on Upolu island only. Further details about the collecting mission are presented in the collecting mission report (Sardos et al. 2019, Report of the Banana Collecting Mission to Samoa from July 22nd to August 2nd, 2019).

Our acknowledgements are going to all of the farmers in Upolu who kindly shared their plant material with the team and answered our questions about their bananas. Additional thank you to Dr. Jeff Daniells who provided critical feedback on identification of specimens and editing of this catalog.



Collecting team (left to right): Polito Keni, Julie Sardos, Gabriel Sachter-Smith, Arshni Shandil, Parate Matalavea, Anesone Vaai.

Regional Map:



Island of Upolu:



-location of specimen collection

(Map data: ©2019 GBRMPA, ©2021 TerraMetrics, Google)

Collected Specimens

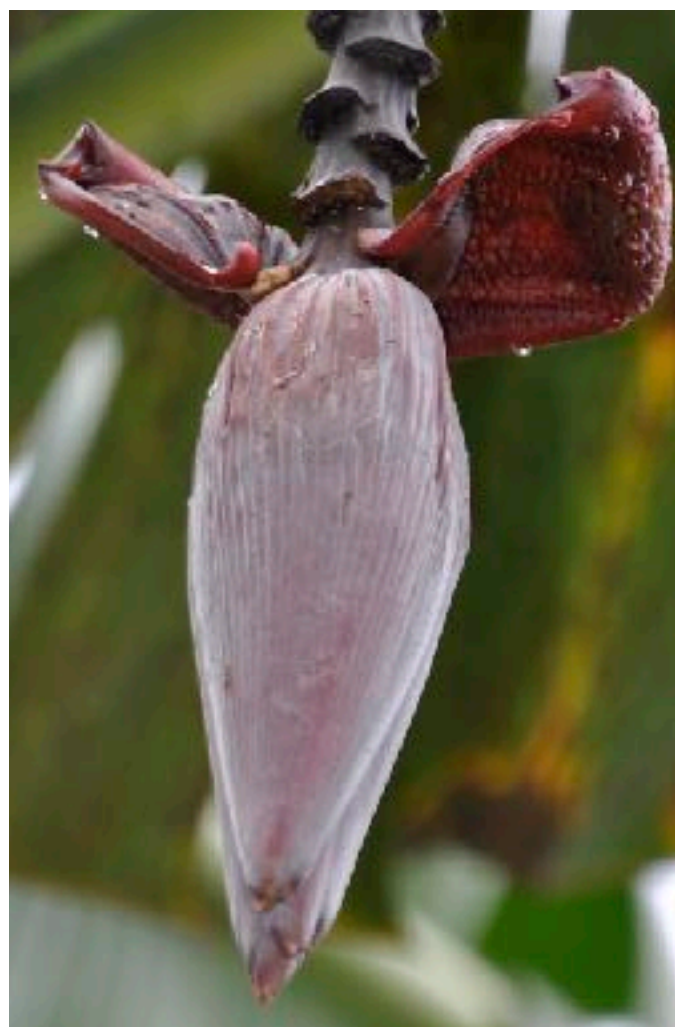
Local Name: Fa'i Samoa Au Lapopoa

Classification: AAB Maoli-Popoulu

Collection Code: SAM007

Notes:

Name means "Large Samoan Banana". Fruit used for cooking. Bunch angled with few hands, male bud non or slowly degenerating.



Local Name: Fa'i Samoa Lanu Viole
Classification: AAB Maoli-Popoulu
Collection Code: SAM009

Notes:

Name means "Purple Colored Samoan Banana" because the young fruits are said to have a purple-red coloration to them which fades upon maturity. Male flowers highly pigmented, pseudostem and petioles with subtle purple-red pigmentation more than other similar cultivars observed, male bud non-degenerating, bunch pendant. Fruit used for cooking.



Local Name: Fa'i Samoa Au Pupuka
Classification: AAB Maoli-Popoulu
Collection Code: SAM010

Notes:

Name means “Large Samoan Banana”. Somewhat intermediate between classic “Maoli” and “Popo’ulu” types of the subgroup. Bunch angled, few but very large fruits. Male bud rapidly degenerating.



Local Name: Fa'i Samoa Au Malie
Classification: AAB Maoli-Popoulu
Collection Code: SAM011

Notes:

Meaning of name unknown beyond "Samoan Banana". Typical Maoli type. Many elongated fruits, male bud non-degenerating, bunch pendant. Fruit used for cooking.



Local Name: Fa'i Mamae Samoa
Classification: AAB Iholena
Collection Code: SAM008

Notes:

“Mamae” means beloved. Typical Iholena type. Fruit used for cooking. Leaves used in folk medicine to treat skin conditions in children.



Local Name: Fa'i Mamae Upolu
Classification: AAB, Iholena-like
Collection Code: SAM003

Notes:

"Mamae" means beloved, and also used for the standard type Iholena SAM008. Differs from standard Iholena types by having fruits which tend to point more upwards, newly unfurling leaves with a green abaxial surface as opposed to red, and flesh which is closer to yellow than orange, suggesting lower carotenoid content. Somewhat similar to specimens seen in Papua New Guinea such as WNB032 'Balabolo 1'.



Local Name: Fa'i Talima
Classification: AAB Laknau
Collection Code: SAM002

Notes:

Also called 'Kalima'. Name means "five" referencing the number of hands typically present. Fruit used for cooking.



Local Name: Fa'i Talua
Classification: AAB Plantain
Collection Code: SAM004

Notes:

Also called 'Kalua'. Name means "two" referencing the number of hands typically present. Fruit used for cooking.



Local Name: Fa'i Pata Tonga

Classification: ABB Saba

Collection Code: SAM014

Notes:

Pata is a name used for many different ABB types. Apparently not common. Fruit used for cooking. Large and robust plant. Doubt exists as to whether or not this is the original 'Pata Tonga', or a more recent introduction. In 1989 Jeff Daniells observed that 'Pata Tonga' was a Kalapua-like tetraploid, no such plant was observed on this expedition but a plant matching that description and genotype was collected by our team in the Cook Islands as 'Rekua'. This accession is possibly also the same as 'Fa'i Afa' or 'Pisang Gajih Mera' which was introduced by an Australian project in the 1990s.



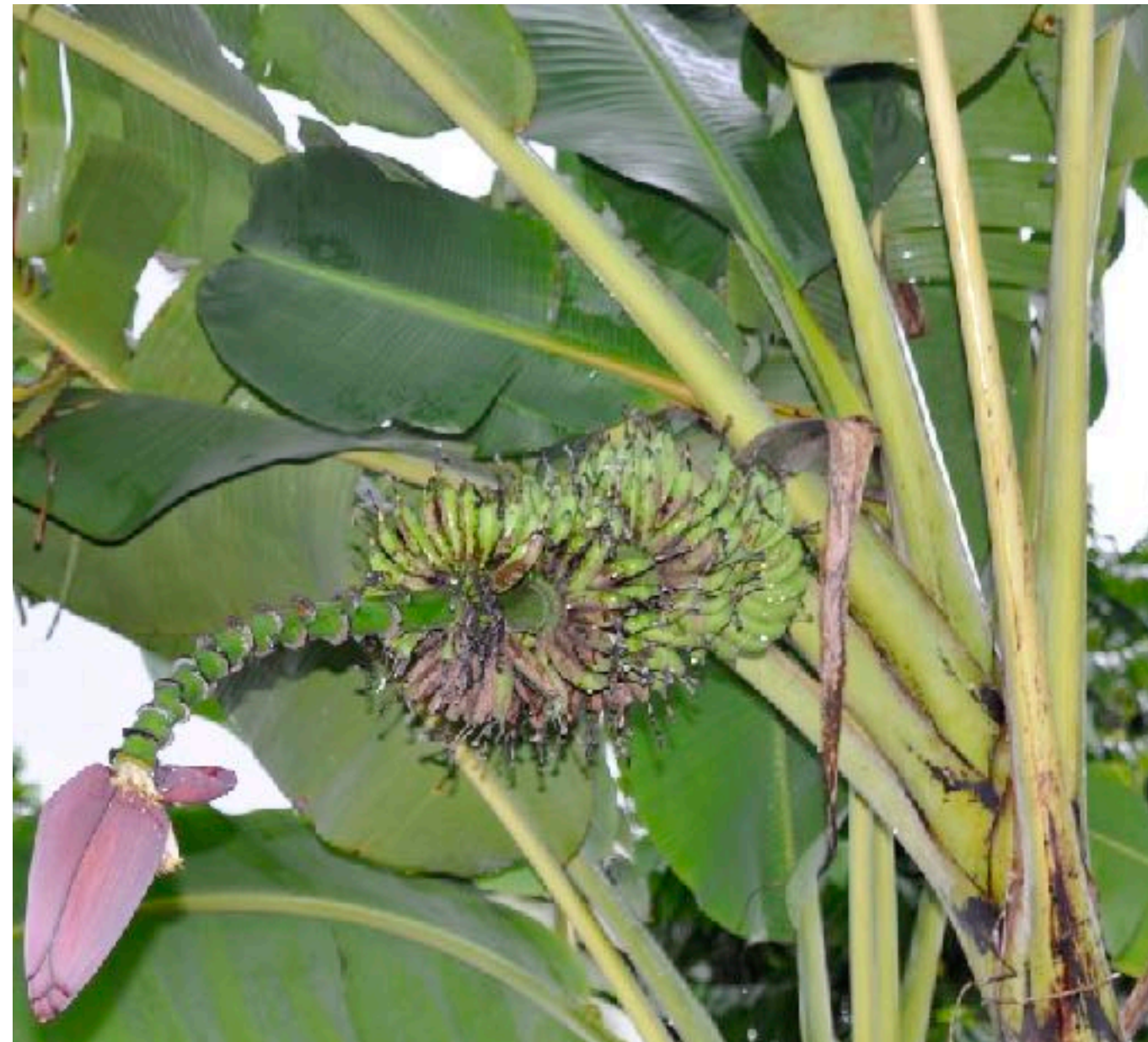
Local Name: Fa'i Fia Misiluki

Classification: AAA Ibota

Collection Code: SAM016

Notes:

Name means "Banana that is similar to Misiluki", 'Misiluki' being common Mysore. Introduced at some point in the relatively recent past.



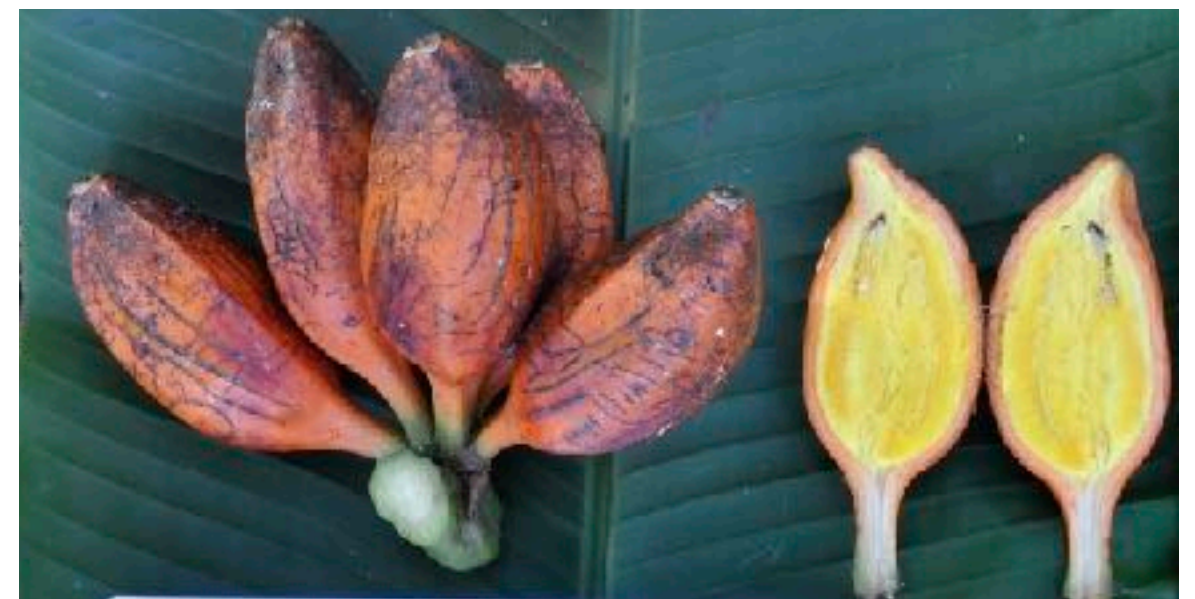
Local Name: Fa'i Ausulasula

Classification: Fe'i

Collection Code: SAM001

Notes:

One of two distinct Fe'i types seen. Fruits are somewhat round and with a distinct elongated pedicel. Leaves very erect. Assumed to be same as SAM005, collected for redundancy.



Local Name: Fa'i Ausulasula

Classification: Fe'i

Collection Code: SAM005

Notes:

One of two distinct Fe'i types seen. Fruits are somewhat round and with a distinct elongated pedicel. Leaves very erect. Assumed to be same as SAM001, collected for redundancy.



Local Name: Fa'i Soa'a
Classification: Fe'i
Collection Code: SAM006

Notes:

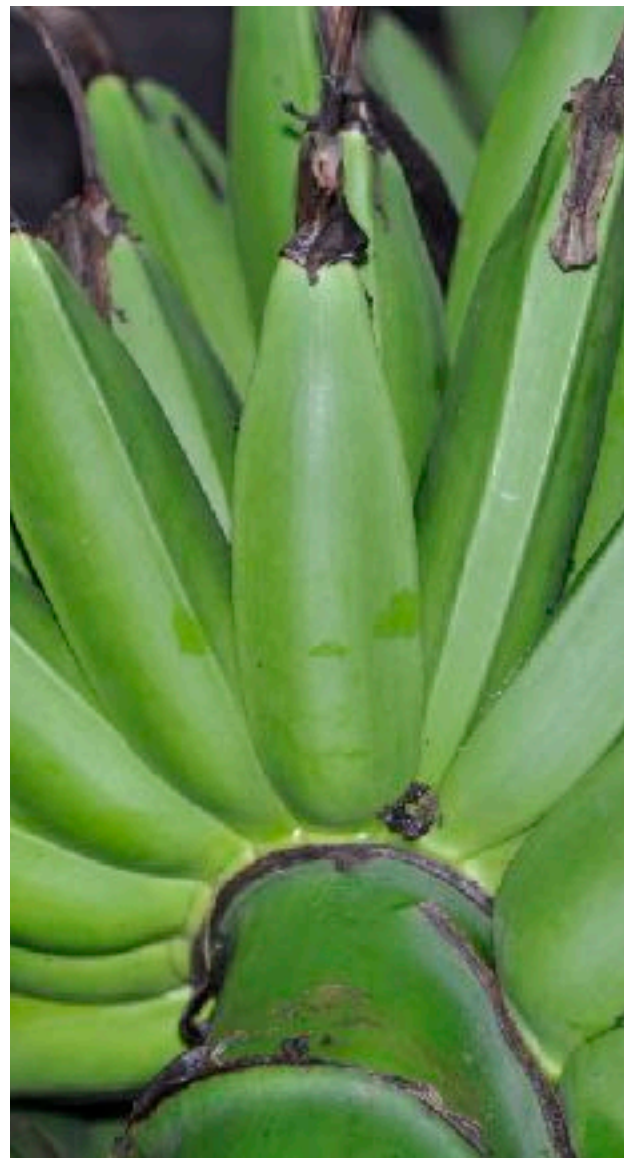
One of two distinct Fe'i types seen. Fruits are somewhat elongated and with a short pedicel. Leaves more lax/horizontal than 'Fa'i Ausulasula'. Assumed to be same as SAM013, collected for redundancy.



Local Name: Fa'i Soa'a
Classification: Fe'i
Collection Code: SAM013

Notes:

One of two distinct Fe'i types seen. Fruits are somewhat elongated and with a short pedicel. Leaves more lax/horizontal than 'Fa'i Ausulasula'. Assumed to be same as SAM006, collected for redundancy.



Local Name: Fa'i Lautamanu Luatuanuu
Classification: *Musa acuminata* subsp. *banksii*
Collection Code: SAM015

Notes:

'Fa'i Tae Manu' means "bird faeces banana", denoting its spread by seed from birds eating the fruits. Lua Tuanuu references the specific place of collection and was given by collecting team. Typical form in agreement with Simmonds' *M. acuminata* subsp. *banksii* var. *samoensis*. Naturalized/wild, but also occasionally planted intentionally to attract birds and bats which are then hunted.



Local Name: Fa'i Lautamanu Lalonea

Classification: *Musa acuminata* subsp. *banksii*

Collection Code: SAM012

Notes:

'Fa'i taemanu' means "bird faeces banana", denoting its spread by seed from birds eating the fruits. Apparently parthenocarpic as evidenced by the very few number of seeds within the fruits accompanied by the full and smooth fruit pulp development. Slight yellow tint to pulp as compared to other specimens of 'Fai' Taemanu' observed on the island.



Non-Collected Specimens

Local Name: Fa'i Amasi Pulukamu
Classification: ABB Pisang Awak

Notes:

Name means “bubblegum”, denoting its perceived sticky texture of the ripe fruit.



Local Name: Fa'i Amas
Classification: ABB Pisang Awak

Notes:
Typical tall Pisang Awak type.



Local Name: Fa'i Pata Samoa
Classification: ABB Bluggoe

Notes:

Pata is a name used for many different ABB types. Typical Bluggoe type. Fruit used for cooking.



Local Name: Fa'i Pata Sina
Classification: ABB Bluggoe

Notes:

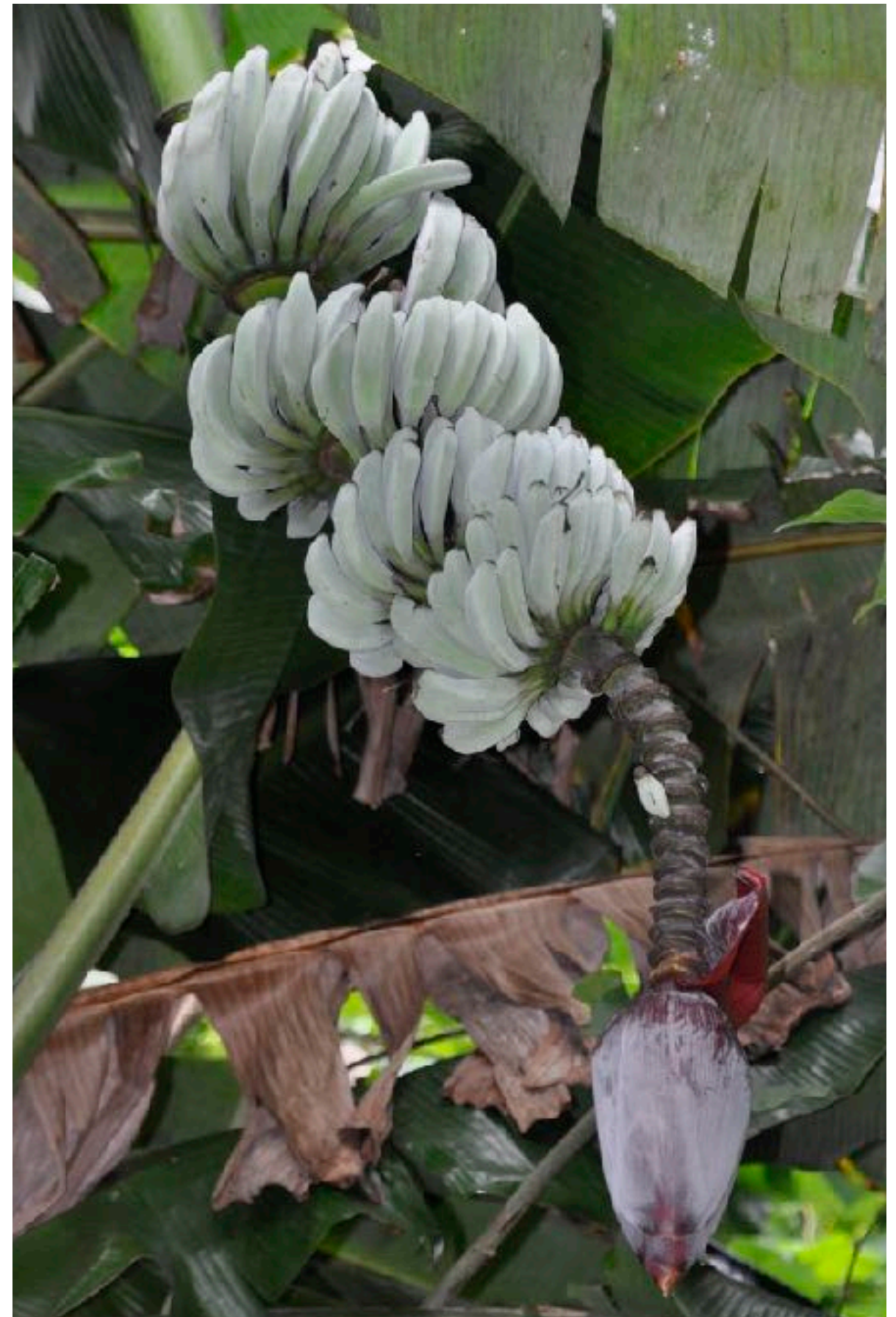
Typical 'Silver Bluggoe' type. Pata is a name used for many different ABB types.



Local Name: Fa'i Pata Sina
Classification: ABB Ney Mannan

Notes:

Pata is a name used for many different ABB types. Typical 'Ney Mannan'/'Ice Cream'/'Blue Java'.



Local Name: Fa'i Pata Susu
Classification: ABB 'Monthan'

Notes:

Pata is a name used for many different ABB types. Name means “breast pata”, denoting the shape of the apex of the fruit being similar to a woman's breast/nipple.



Local Name: Fa'i Pata Tonga

Classification: ABB Klue Teparod

Notes:

Pata is a name used for many different ABB types. Only seen in and around MAF Nu'u Research Station, introduced from a project in the relatively recent past. Confused for the more common local Saba-like 'Pata Tonga'.



Local Name: Fa'i Palagi
Classification: AAA Cavendish

Notes:

Name means “white person’s banana”. A variety of cultivars exist, and are often used for cooking when green.



Local Name: Fa'i Palagi Poila
Classification: AAA Cavendish?

Notes:

Name means “white man’s banana for cooking”. With a distinct bottle-nosed apex, preferred for boiling when green.



Local Name: Fa'i Sosisi Mumu
Classification: AAA Red

Notes:

Name means “red sausage banana”. Typical Red type.



Local Name: Fa'i Misiluki
Classification: AAB Mysore

Notes:

Most popular cultivar for dessert use, very common. Typical Mysore type.



Local Name: Goldfinger

Classification: AAAB FHIA hybrid, FHIA-01

Notes:

Seen with Black Leaf Streak infection.



Local Name: unknown
Classification: SH-3436

Notes:
Rare, use of fruit or local name unknown.

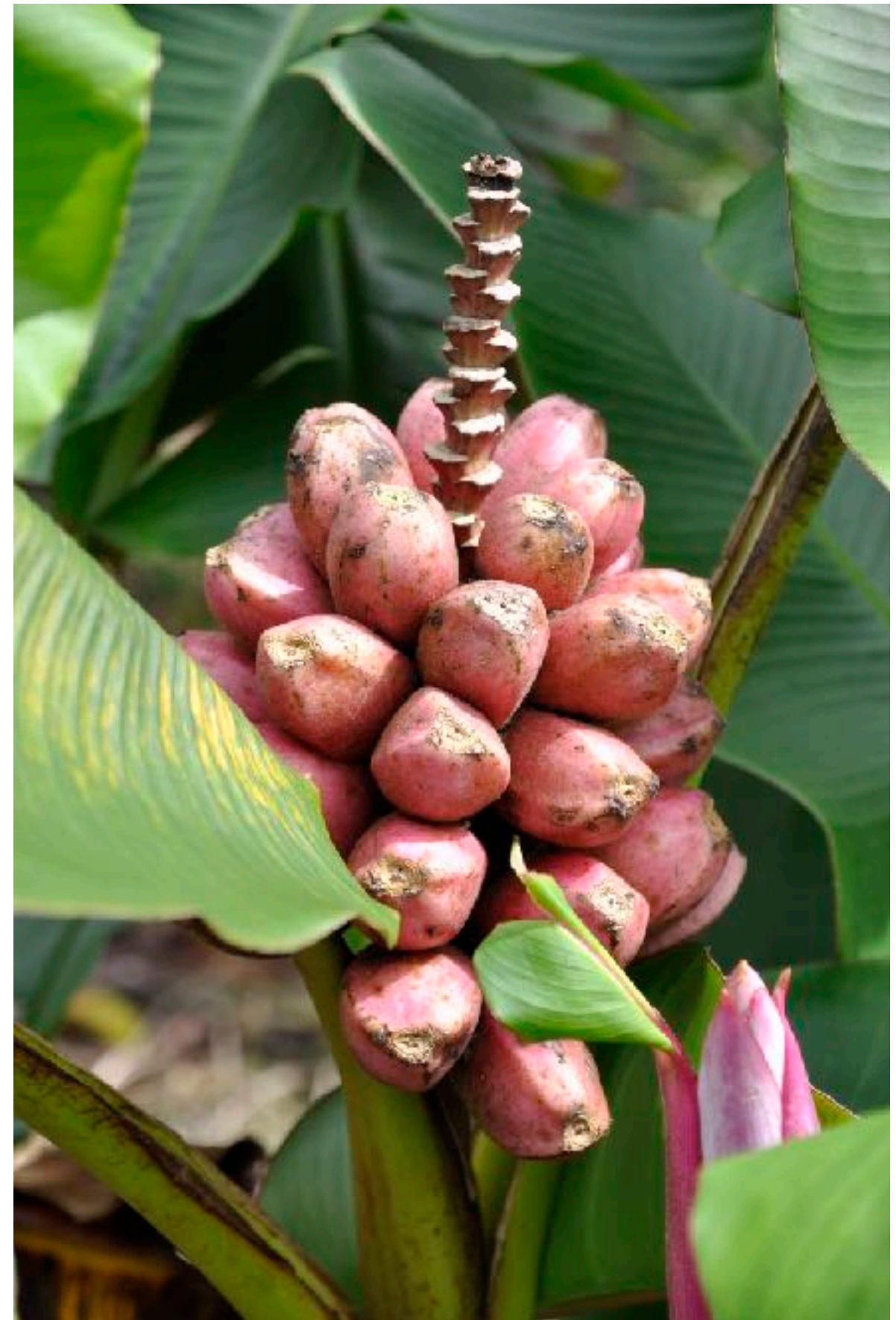


Local Name: unknown

Classification: *Musa velutina*

Notes:

Seen occasionally as a garden ornamental.

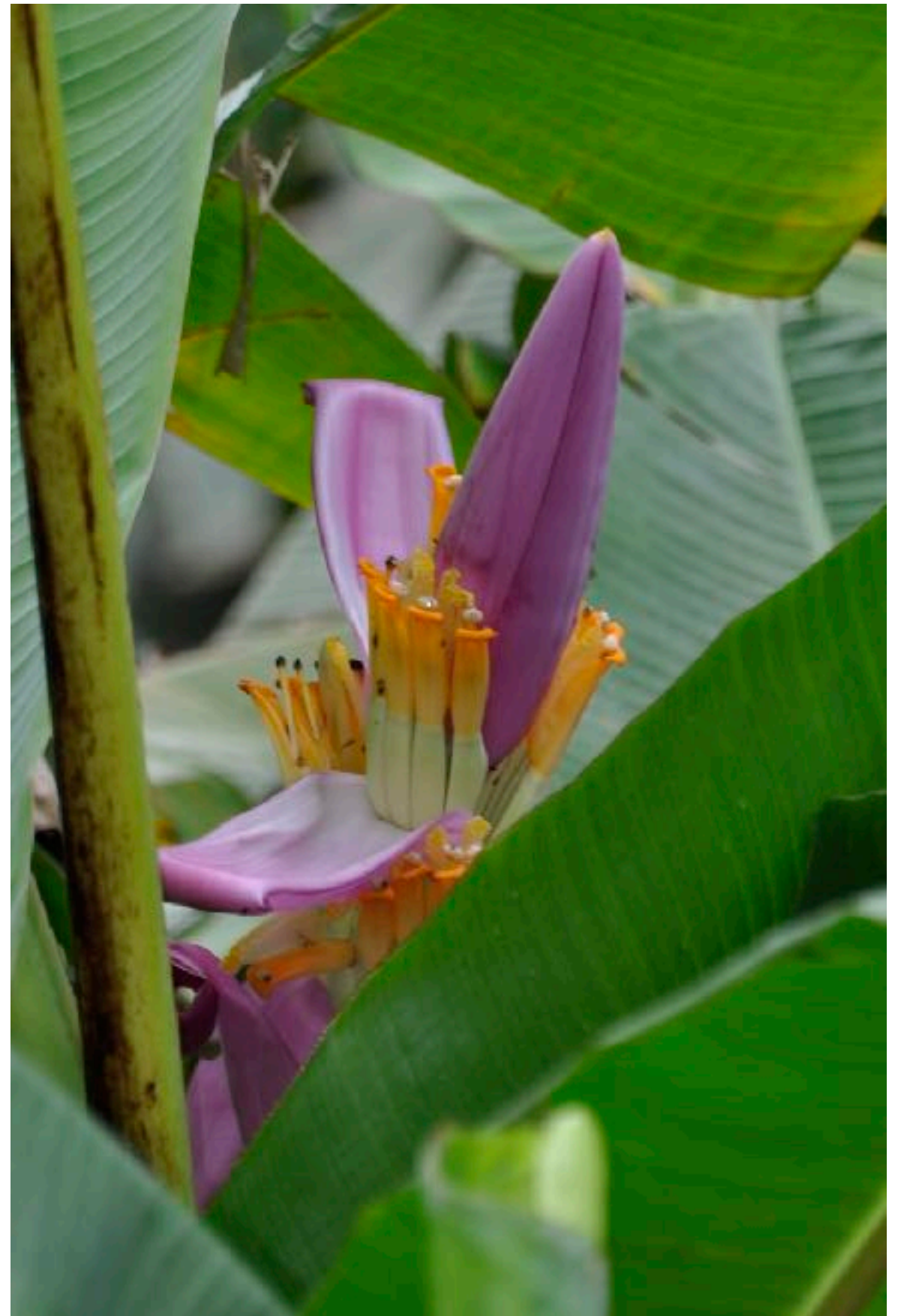


Local Name: unknown

Classification: *Musa ornata*

Notes:

Seen occasionally as a garden ornamental.



Local Name: unknown

Classification: *Musa laterita*

Notes:

Seen occasionally as a garden ornamental.

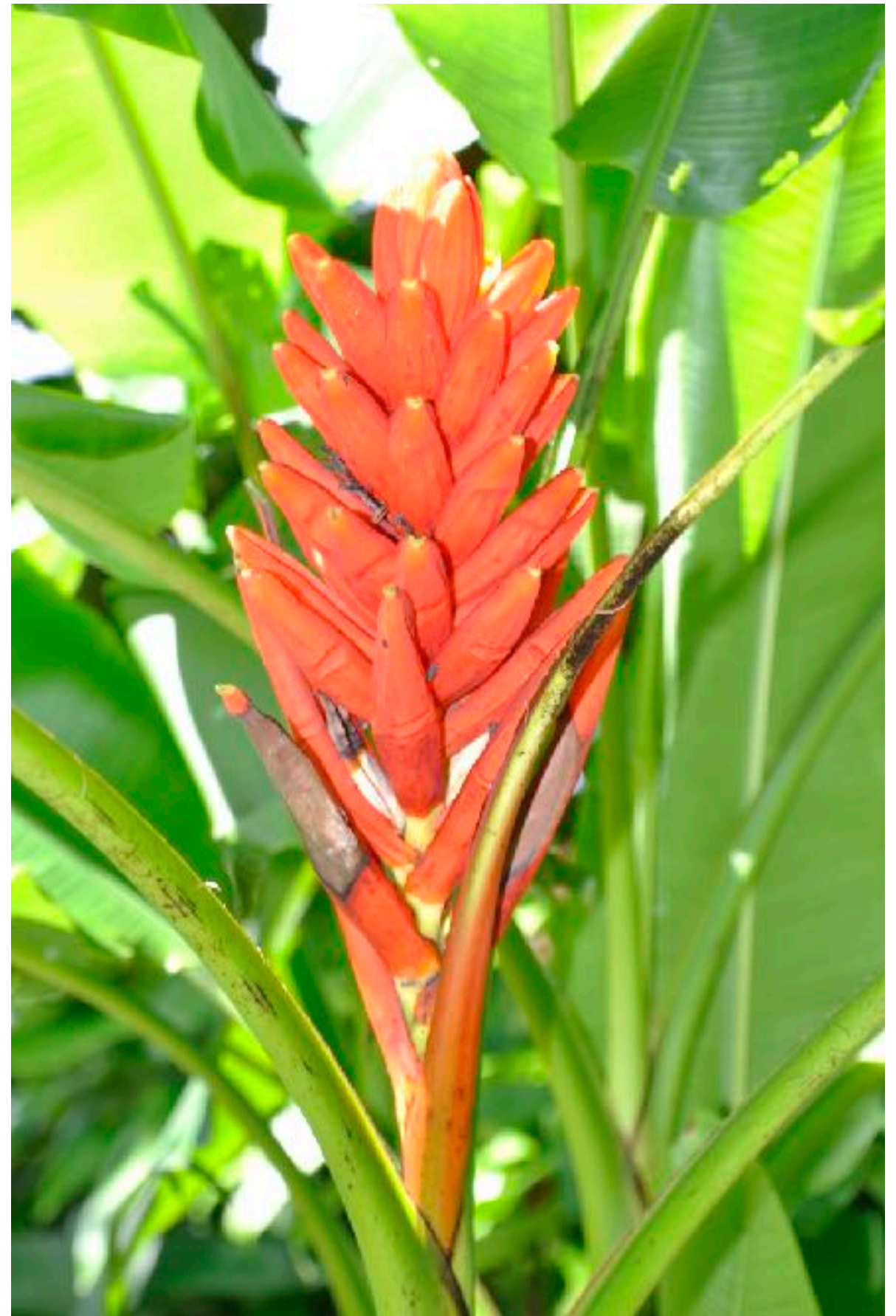


Local Name: unknown

Classification: *Musa coccinea*

Notes:

Seen occasionally as a garden ornamental.



All Types of Bananas Observed on Expedition

Status	Code	Local Name	Genome	Subgroup	Notes	Page Number
Collected	SAM007	Fa'i Samoa Au Lapopoa	AAB	Maoli-Popo'ulu		6
Collected	SAM009	Fa'i Samoa Lanu Viole	AAB	Maoli-Popo'ulu		7
Collected	SAM010	Fa'i Samoa Au Pupuka	AAB	Maoli-Popo'ulu		8
Collected	SAM011	Fa'i Samoa Au Malie	AAB	Maoli-Popo'ulu		9
Collected	SAM008	Fa'i Mamae Samoa	AAB	Iholena		10
Collected	SAM003	Fa'i Mamae Upolu	AAB		Iholena-like	11
Collected	SAM002	Fa'i Talima	AAB	Laknau		12
Collected	SAM004	Fa'i Talua	AAB	Plantain	Horn type	13
Collected	SAM014	Fa'i Pata Tonga	ABB	Saba	likely not the original cultivar with this name	14
Collected	SAM016	Fa'i Fia Misiluki	AAA	Ibota		15
Collected	SAM001	Fa'i Ausulusula	Fe'i		assumed to be same as SAM005	16
Collected	SAM005	Fa'i Ausulusula	Fe'i		assumed to be same as SAM001	17
Collected	SAM006	Fa'i Soa'a	Fe'i		assumed to be same as SAM013	18
Collected	SAM013	Fa'i Soa'a	Fe'i		assumed to be same as SAM006	19
Collected	SAM015	Fa'i Lautamanu Luatuanuu			<i>Musa acuminata</i> subsp. <i>banksii</i>	20
Collected	SAM012	Fa'i Lautamanu Lalonea			<i>Musa acuminata</i> subsp. <i>banksii</i> , parthenocarpic	21
Non-collected	N/A	Fa'i Amasi Pulukamu	ABB	Pisang Awak		22
Non-collected	N/A	Fa'i Amas	ABB	Pisang Awak		23
Non-collected	N/A	Fa'i Pata Samoa	ABB	Bluggoe		25
Non-collected	N/A	Fa'i Pata Sina	ABB	Bluggoe	Silver Bluggoe	26
Non-collected	N/A	Fa'i Pata Sina	ABB	Ney Mannan	Blue Java / Ice Cream	27
Non-collected	N/A	Fa'i Pata Susu	ABB		Monthan	28
Non-collected	N/A	Fa'i Pata Tonga	ABB	Klue Teparod		29
Non-collected	N/A	Fa'i Palagi	AAA	Cavendish		30
Non-collected	N/A	Fa'i Palagi Poila	AAA	Cavendish?		31
Non-collected	N/A	Fa'i Sosisi Mumu	AAA	Red		32
Non-collected	N/A	Fa'i Misiluki	AAB	Mysore		33
Non-collected	N/A	unknown	AAAB		FHIA-01 'Goldfinger'	34
Non-collected	N/A	unknown	AAA		SH-3436	35
Non-collected	N/A	unknown			<i>Musa velutina</i>	36
Non-collected	N/A	unknown			<i>Musa ornata</i>	37
Non-collected	N/A	unknown			<i>Musa laterita</i>	38
Non-collected	N/A	unknown			<i>Musa coccinea</i>	39