NOTES

1. The major ancestor of edible bananas is *M. acuminata* (A genome) in sect. *Musa*. *Musa balbisiana* (B genome) and, to a minor extent, other sect. *Musa* wild species such as *M. schizocarpa* (S genome) and series *Australimusa* (T genome), also contributed to the genetic makeup of current-day edible bananas (Heslop-Harrison and Schwarzacher 2007). The botanical/biogeographical status of *M. textilis*, whether genuine species or complex cultivar, and its relationship to Fehi cultivars is uncertain (Christenhusz 2009; Kennedy 2009b; Lasalita-Zapico *et al.* 2010).
2. Fehi, Maoli/Pōpōʻulu and Iholena all appear to have connections to New Guinea and attain their greatest diversity and prominence in the Pacific region and were largely unknown outside of the Pacific. This is not the case for other cultivated bananas (Daniells 1990, 1995).
3. Stover and Simmonds (1987) cautioned that Fehi bananas were so poorly understood that at that time the use of Latin binomials was unwise, and this statement still applies. Simmonds (1959: 66) added to this caution the comment that insistence on Latin binomials for sect. *Musa* cultivars "has been the biggest single barrier to taxonomic understanding of the cultigens and wild plants alike". We concur.
4. These include *M. aiori* Sagot, *M. amboinensis* Miq., *M. fehi*, *M. seemannii* F.Muell., *M. troglodytarum*, *M. uranoscopus* Colla and *M. uranoscopus* Seem.
5. It is unclear from Sagot (1886) whether *M. fehi* produced viable seeds, but there are reports of Fehi from Canala and Farino doing so. Further research may show that the name *M. fehi* is applicable to some Fehi cultivar groups/cultivars.
6. Triploid bananas are known to result from the fertilisation between a non-reduced (diploid) gamete and regular haploid gamete. The diploid gametes result from irregularities in meiosis when the two parent genomes are too different; such can be either interspecific or intersubspecific (Perrier, Bakry, *et al.* 2009).
7. *Musa jackeyi* W.Hill was described from north Queensland (Hill 1874), and, if future research shows it to be conspecific with the morphologically near-identical *M. maclayi*, described later (Mueller 1875), then the name *M. jackeyi* would have priority, unless formally rejected. *M. fehi* Bertero ex Vieill. may also be conspecific with these two species, in which case its name would have priority, having being described earlier in 1862.
8. As discussed by Cheesman (1949), the literature on "*M. fehi*" includes at least three different entities, and interpretation of true *M. fehi* awaits clarification (Häkkinen and Väre 2008).
9. Pacific plantains (genome AAB, Maia Maoli/Pōpōʻulu) are distinctive, starch-rich cultivars which are almost invariably eaten cooked. Note that not all bananas eaten cooked are plantains. The group's origin and distribution are discussed by Kennedy (2008) and by De Langhe *et al.* (2015). The latter make no reference to Fehi despite the apparent chronological and regional overlap of the two groups in the area they discuss.
10. In some cultivars the peduncle may reflex either before the fruits begin to fill or once the fruits mature and weigh down the bunch.

11. *Musa maclayi s.l.* here includes var. *maclayi* (Morobe and Oro Provinces, Papua New Guinea), var. *erecta* (Simmonds) Argent (Bougainville and Solomon Islands), var. *namatani* Argent (New Ireland, Papua New Guinea) and subsp. *ailuluai* Argent (Fergusson Is., Milne Bay Province, Papua New Guinea), along with the closely related species *M. bukensis* (Bougainville), *awawe* (Makira, Solomon Islands), *ba'u lalao* and *ba'u kokofio* (Malaita, Solomon Islands) and *M. jackeyi* (north Queensland, Australia).
12. These cultivar groups are based on morphological data and need to be tested with DNA and cytological analyses. Assignment of cultivar groups to different ploidy levels is provisional and mainly based on unpublished flow cytometry data (generated by the *Musa* Genotyping Centre https://musanet.org/resources/musa-genotyping-centre).
13. These indigenous names for groups have been used in the literature, but only three—*'aiori* and *tāti'a* from Tahitian, and *karat* from Pohnpeian—have been linguistically verified.
14. *'Aiori* has often been misspelt as *'aiuri,* even in recent literature.
15. The height of the pseudostem (from base of pseudostem to emerging point of the peduncle) varies depending on age of mat and environment, especially light levels, soil fertility and elevation. *Ha'a* is a noted dwarf form, maximally to 4 m tall, whereas cultivars in the Sar cultivar group have massive pseudostems to 7.5 m tall.
16. These are the wild bananas reported by Sachter-Smith (2011: 9–10).
17. Vieillard (1862) reported that in New Caledonia some seeds of "*M. fehi*" develop fully and are viable, so that "*M. fehi*" can be propagated from both seeds and suckers.
18. Nadeaud also recorded that "his grandfather germinated seeds of the 'variety' *aiuri* and obtained living plants" (MacDaniels 1947: 14).
19. *Zosterops lateralis* Latham was introduced to the Society Islands in 1937 (Guild 1938).
20. The Bismarck Archipelago is a group of islands off the northeastern coast of New Guinea and includes New Ireland, New Britain, Manus and many smaller islands.
21. Mat is a horticultural term for an interconnected clump of banana shoots and the rhizome from which they arise.
22. Most likely either maiden or bullhead suckers or as seed (see Kepler and Rust 2011: 12–13).
23. An asterisk is used to indicate a reconstructed word in proto-languages.
24. Proto-Oceanic is the reconstructed language spoken by Lapita peoples, who ca. 3000 BP became the first inhabitants of Remote Oceania, i.e., Oceania beyond the main Solomon Islands.
25. Furthermore, the Rennellese *g* (pronounced ngg) of Rennellese *togaka* derives from an earlier PPn **l* and **r*, indicating that *togaka* is an early borrowing into Rennellese before the change of Proto-Nuclear Polynesian **l* > Rennellese *g,* parallel to the Rennellese mythical place name Paugo. Paugo is the name of an external land recounted in traditions of Rennell and Bellona and cognate with Bauro on Makira Island. If Rennellese *togaka* were a recent borrowing, then

we would expect unattested Rennellese **tolaka*. In more recent borrowings Rennellese uses *l* to borrow *l* or *r*, e.g., Rennellese *leta* (borrowing of English "letter") and Rennellese *likoti* (borrowing of English "recording"). Indeed Rennellese Makila (for Makira Island in the Solomons) is likely another late borrowing dating from a post-contact period when the large island formerly termed San Cristobal came to be generally called Makira (Elbert 1988: 278, 283–86). Traditions on Rennell and Bellona indicate that the Indigenous people, Rennellese Hiti < PPn **fiti* 'Fiji, Fijian', who lived on their islands when the Polynesians first colonised them, grew the togaka banana and that the Rennellese obtained it from them (see Elbert 1975 *hiti* (p. 93), *huti o te hiti* (under *huti* p. 103), *togaka* (p. 309), also *huti hahine* and *huti ta'ane* (p. 103)).

26. Another useful plant with origins in Rotuma is sago*, Metroxylon warburgii* (Heimerl) Becc., for which the Rotuman name *ota* has been borrowed in Futunan, while an alternative name in Futuna, *niulotuma* (lit. 'Rotuma coconut'), is also used in Sāmoa.
27. A semantically identical innovative term for Fehi is found in Roviana, West Solomons: *vuaturu*, literally 'fruit + stand' (Waterhouse 1928).
28. *Fekī* was likely the earlier form of *fē'ī*, before PEPn **k* became a glottal stop in Tahitian.
29. Other cognates include Rapan *akī* 'tree fern', *Cyathea societarum* Baker (now *Alsophila societarum* (Baker) Christenh.); Rarotongan *'eki* (vowel length uncertain) 'a fern tree, a *Cyathea* species'; Marquesan *feki*, *heki* 'name of a tree fern with bulbs or shoots at the top eaten during food shortages' (Dordillon 1999 for heki; Crook 2007 for feki). If this term for a tree fern is the source of Tahitian *fē'ī*, there was an irregular lengthening of the initial vowel accompanying the change in meaning. Another possible source, as first suggested by Langdon (1989: 323), is Sāmoan *fa'i* 'banana' through a change of vowel quality as well as length. Ultimately the term *fē'ī* may have replaced an earlier cognate of PEPn **fua-tu'u* (expected Tahitian reflex being *huatū*) through word taboo, the source of many other distinctive Tahitian words.
30. In the unpublished journal of Martin Grant on his 1930–1931 voyage to the Society Islands, it was recorded on 4 December 1930: "The chief [of Paea on Tahiti] lamented the disappearance of the fei due to the boring of insects in the trunk" (Grant 1930–1931: 97).
31. Blust (2010) provides evidence that the Micronesian subgroup of languages is most closely related to the Longgu–Malaita–Makira languages of the southeast Solomons. An ancestral source for Micronesian languages in the southeast Solomons would as a corollary include cultural knowledge of the food crops grown in the southeast Solomons and the likelihood that such crops as the Fehi cultivars developed in the Makira area would be introduced into the high islands of eastern Micronesia. Perhaps relevant is that in Kiribati (Sabatier 1971) Bouru is "a land of ancestors where souls of the dead return", and possibly a reference to Bauro, the central third of the island of Makira.
32. We will add further evidence for paper mulberry as well as for breadfruit in two upcoming publications in this series.

Supplementary Information: Table 1. Listing of named cultivars in each Fehi group by country/island(s)

Country/Island(s)	‘Aiori	Baubaunio	Bonubonu	Kourai	Menei	Wild-seeded	Tāti’a	Rimina	Asupina	Karat	Sar	Tongkat Langit Pendek	Uncertain	References
Putative ploidy	diploid	diploid	diploid	diploid	diploid	diploid	diploid	triploid	triploid	triploid	triploid	triploid		Sardos, Breton, *et al.* 2018; Sardos, Sachter-Smith, Ghanem, *et al.* 2019; see also immediately below this table
Indonesia					*tongkat langit* (Ambon, Seram and Java)				*tongkat langit* Papua (West Papua)			*tongkat langit pendek*/*tongkat langit kecil*, *telo mata lala*		Dwivany *et al.* 2020; Hermanto *et al.* 2014; Hiariej *et al.* 2015; Edison *et al.* 2002; Sutanto *et al.* 2016
Papua New Guinea (Province)	*lolu*, *wore* (West New Britain)			*?utafan* (New Ireland), *?kateen* (Manus)	*menei* (Manus)			*rimina* (Eastern Highlands)	*asupina* (West Sepik), *skai* (Western)		*sar* (Manus)		*apap*, *kapiak* (West New Britain), *wain* (Madang), *sus* (Manus)	Arnaud and Horry 1997; Daniells, Sharrock and Kambuou 1988; Daniells and Paofa 2007; Sardos, Paofa, *et al.* 2019
Autonomous Region of Bougainville	*limot*, *poso-olohi*			*kourai*										Sachter-Smith *et al.* 2016; Sardos, Breton, *et al.* 2018
Solomon Islands	*toraka fagufagu*, *toraka suria* (syn. *aibw*, *aebo*), *toraka parao*	*toraka baubaunio*	*toraka bonubonu*	*toraka gatagata*			Mt. Popomanaseu			Bauro Central	*toraka warowaro*		*toraka akeakesusu*, *toraka morikera*	Daniells 2007; Sachter-Smith 2011; Sardos, Breton, *et al.* 2018
Rennell & Bellona, Polynesian Outliers, Solomon Islands													*ghabaghaghi*, *kangisi‘ibai* (Bellona); *huti ta‘ane* (Rennell)	Elbert 1975
Vanuatu			VUT151	*hoaka*/*hereibuero*, *ota*, *ota* 2, *sawak*, *sokamé*, Torres						*?navis nouel*			*avotchimeto*, *soka turu*	Cormier 2010
New Caledonia	*daak*, *daang*, *dāŋ*	*djan*				*daak*, *daang*, *dāŋ*, *djan*					*namaco ni du* (Maré)			Barrau 1958; Julien Drouin pers. comm.
Fiji	*soaqa* (Fiji), *säe* (Rotuma)		*säe liu* (Rotuma)											McClatchey *et al.* 2000; Dodds 1946; Seemann 1865; Smith 1979
Sāmoa	*ausulasula*		*pūputa*										*fa‘i soa‘a*	Sardos, Sachter-Smith, Ghanem, *et al.* 2019
Niue	*hulahula*		*pūputa*											Yuncker 1943; Poi Okesene pers. comm.
Marquesas, French Polynesia	*huetū* (syn. *‘aiori*); *huetū kāhui fa‘a* (“pandanus bunch”)					*huetū kakano* (Nuku Hiva); *huetū popoi/fio*/*‘oma‘o*/*nafa* (Fatu Hiva)							*pōpō* (large round red fruit); *aitu* (medium red fruit)	J.-F. Butaud (pers. comm.); Brown (1931)
Ra‘iātea, Leeward Islands (Society Is.), French Polynesia	*‘aiori*	*ha‘a*				*fē‘ī ‘ōfa‘i* (meaning stone/seed)	*‘āfara tārere*						*‘ati‘ati* (< 10 fruits per bunch); *‘ū‘ū* (red skin like the *‘ū‘ū* or shy soldier fish *Plectrypops lima*); *rauoro* (skin thick with cracks, black ridges on the large fruits)	
Tahiti, Society Is., French Polynesia	*‘aiori* (10 varieties), *‘ārutu*	*‘ā‘ata*, *toro a‘ia‘i*, *ha‘a*, *mahani*, *rūreva*	*‘u‘ururu*	*‘oe‘oe*		*fē‘ī ‘iri‘iri*	*tāti‘a*, *‘āfara tārere*	*‘āfara potopoto*, *paru*		*pouti‘a*				MacDaniels 1947; Académie Tahitienne | Fare Vāna‘a 2017
Cook Islands	*‘ūtū*/*‘uatū* (1–2 varieties)	*‘ūtū*/*‘uatū* (several varieties)					*ve‘i ooka*/*‘uatū pi vai*							Sardos, Sachter-Smith, Ghanem, *et al.* 2019; Wilder 1931
Yap, Federated States of Micronesia										*arai* (syn. *karat*)	*arai ni ngir*			
Chuuk, Federated States of Micronesia										*danon* (syn. *karat*)				
Pohnpei, Federated States of Micronesia										*karat pako*, *karat pwehu*, *karat kole*	*utin Iap* (syn. *usr kolontol*), *usr utimwas*			Daniells, Englberger and Lorens 2004
Kosrae, Federated States of Micronesia										*usr kulasr* (syn. *karat*)	*usr kolontol*		*Kusaie* (introduction from Kosrae to Hawai‘i)	Daniells, Englberger and Lorens 2004

Additional ploidy references (derived from flow cytometry):

asupina: https://www.crop-diversity.org/mgis/accession/01BEL0841027 (3×)

'aiori: https://www.crop-diversity.org/mgis/accession/01GLP005386 (2×)

menei: https://www.crop-diversity.org/mgis/accession/01BEL0841021(2×)

rimina: https://www.crop-diversity.org/mgis/accession/01BEL0841010 (3×)

tongkat langit Papua: https://www.crop-diversity.org/mgis/accession/01BEL0841721 (3×)

wari: https://www.crop-diversity.org/mgis/accession/01BEL084813 (2×)