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Notes on Fijian Euphorbiaceae

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Genus *Acalypha* Linnaeus

According to the monograph of Pax and Hoffmann [Pflanzenr. 85 (IV. 147. XVI) : 9, 1924], the Fiji Islands are rich in species of *Acalypha*, with seven endemic species out of nine. *Acalypha boehmerioides* Miquel is a well-known weed from the tropics of the far East and Australasia; *A. grandis* Benthham is widespread, with ill-defined limits ranging from Malaysia eastward; of the balance, *A. rivularis* Seemann, *A. laevifolia* Mueller-Argau, *A. insulana* Mueller-Argau, *A. latifolia* Mueller-Argau, *A. anisodonta* Mueller-Argau, *A. repanda* Mueller-Argau, and *A. denudata* Mueller-Argau are supposed to be localized in the Fijian Archipelago.

The identification of *A. rivularis* presents no difficulty. It stands out sharply because of its narrow leaves, auriculate at the base, which strongly suggest the leaves of certain species of *Cleidion*. The remaining six supposedly Fijian endemics are plainly polymorphous when seen in herbarium specimens and their extreme states—a normal condition with *Acalypha*—suggest distinct species. Careful study of large sets of specimens, however, show that a single entity is involved, now pubescent, then glabrous, sometimes free-growing, other times short-branched, glandular or not at the bracts of the female flower. Our herbarium has an unusually rich set of isotypes and classic collections, covering every one of the binomials and trinomials of *Acalypha* published by Mueller [DC. Prodr. 15(2) : 799, 1866]. I have compared this basic material with the following collections: *Horne* 1877-1878 (2 sheets); *Parks* 20499; *Gillespie* 2839, 2868, 3395, 4138, 4371, 4402, 4464, 4624, 4640; *A. C. Smith* 190, 211, 516, 543; *Degener* 14482,

14626, 14690, 14995, 14989; *Degener and Ordonez* 13721, 13722, 13878, 13953, 14025, 15541, 15546; *Tabulezea* 15564. My conclusion is that it proves impossible to assort this material in any way bearing out the dispositions of Mueller and of Pax and Hoffmann. Mueller was evidently the victim of too narrow a concept of specific limits, and Pax and Hoffmann followed him too closely. *Acalypha latifolia* which Mueller concedes to be "male nota" [DC. Prodr. **15**(2): 817, 1866], might perhaps fall under *A. grandis*, but the balance of the evidence (the type material unfortunately lacks female flowers) suggests as a safer conclusion that it, too, belongs in the synonymy of *A. insulana* Mueller-Argau, which is here designated as species *lectotypica*.

Degener suggests in the notes to *Degener and Ordonez* 13721, 13722, that two entities, one glabrescent (13721), the other pubescent (13722) might hybridize. In my opinion, this illustrates the polymorphism of this species. Both of the cited specimens were collected in the same locality and habitat, and answer to practically the same description. The former (13721) may be treated under *A. insulana glabrescens*, *A. denudata*, or *A. laevifolia*, at will; the latter (13722) is plainly *A. insulana pubescens*. Only field study can decide whether *glabrescens* and *pubescens* are freely hybridizing varieties of *A. insulana*, or, as I now suspect, merely states of a variable entity.

Since it is clearly inexpedient to retain ephemeral species of *Acalypha* which confuse the phytogeography of such a difficult and important group, I affirm the following synonymy, without deciding for the present the status of the varieties of *A. insulana*.

***Acalypha insulana*** Mueller-Argau, *Flora* **47**: 439, 1864 (species *lectotypica*); DC. Prodr. **15**(2): 818, 1866; Seemann, *Fl. Vit.*, 225, 1867; Pax and Hoffmann, *Pflanzenr.* **85**(IV. 147. XVI): 165, 1924.

*Acalypha repanda* Mueller-Argau, *Flora* **47**: 439, 1864; DC. Prodr. **15**(2): 819, 1866; Seemann, *Fl. Vit.*, 226, 1867; Pax and Hoffmann, *Pflanzenr.* **85**(IV. 147. XVI): 167, 1924. New synonym.

*Acalypha laevifolia* Mueller-Argau, DC. Prodr. **15**(2): 853, 1866; Seemann, *Fl. Vit.*, 226, 1867; Pax and Hoffmann, *Pflanzenr.* **85**(IV. 147. XVI): 112, 1924. New synonym.



- Acalypha latifolia* Mueller-Argau, DC. Prodr. **15**(2): 817, 1866; Seemann, Fl. Vit., 225, 1867; Pax and Hoffmann, Pflanzenr. **85**(IV. 147. XVI): 167, 1924. New synonym.
- Acalypha anisodonta* Mueller-Argau, DC. Prodr. **15**(2): 818, 1866; Seemann, Fl. Vit., 226, 1867; Pax and Hoffmann, Pflanzenr. **85**(IV. 147. XVI): 167, 1924. New synonym.
- Acalypha denudata* Mueller-Argau, DC. Prodr. **15**(2): 819, 1866; Seemann, Fl. Vit., 226, 1867; Pax and Hoffmann, Pflanzenr. **85**(IV. 147. XVI): 167, 1924. New synonym.

#### Genus **Cleidion** Blume

- Cleidion leptostachyum** (Mueller-Argau) Pax and Hoffmann, Pflanzenr. **85**(IV. 147. VII): 293, 1914.
- Cleidion Vieillardii* var. *vitiensis* Mueller-Argau, DC. Prodr. **15**(2): 986, 1866.
- Cleidion Degeneri* Croizat, Sargentia **1**: 51, 1942. New synonym.

I much regret having overlooked the fact that *C. Vieillardii* var. *vitiensis* had received specific rank by Pax and Hoffmann. I have not seen authentic material of Mueller's *Mappa leptostachya* (Linnaea **34**: 198, 1865), basynym of *C. leptostachyum*, but the description and the additional material I have recently studied (*Gillespie 4410*, *Bryan 382*) leave little hope that *C. leptostachyum* and *C. Degeneri* are specifically different.

#### Genus **Stillingia** Garden

- Stillingia pacifica** Mueller-Argau, DC. Prodr. **15**(2): 1156, 1866; Seemann, Fl. Vit., 232, 1867; Pax and Hoffmann, Pflanzenr. **85**(IV. 147. V): 183, 1912.

The position of this species has given rise to questions because the genus is almost without exception American. *Stillingia pacifica* is its only representative east of Madagascar and Mauritius, and Pax and Hoffmann record it as "incomplete tantum nota." As noticed by Pax and Hoffmann (op. cit., 180) *Stillingia* differs from *Sapium* solely in the so-called coccophorum, a thickened buttress under the ripe fruit, which is especially noticeable after dehiscence. *Gillespie 4481* (vicinity of Levuka, in fruit) is this species, to judge from descriptions, and manifestly belongs to *Stillingia* as the coccophorum is much in evidence under the nearly ripe fruit.