

## OCHROCARPOS ODORATUS (RAFINESQUE) MERRILL, A NEW NAME FOR A MUCH NAMED SPECIES, WITH A NEW SPECIES FROM SAMOA

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*With one text-figure*

A CHANGE in the name of the widely distributed Old World strand tree currently known as *Ochrocarpus*<sup>1</sup> *excelsus* Vesque and as *O. ovalifolius* T. Anders. is inevitable under the provisions of the International Code of Botanical Nomenclature. The genus *Lolanara* Raf. (1837) was based wholly on "*Lolanwara*" [i.e., *Lolan waran*, *Lignum clavorum* Rumph. Herb. Amb. 3: 97. t. 64. 1743], as was its sole species *Lolanara odorata* Raf. Rafinesque's original rather sketchy description is as follows: "*Lolanara* R (nom ind) Cal. bisquamosus, Petalis 6, duplice series, 3 int. major. Stam. plurima hypogyna. Drupo ovato, nucleo bivalvis intus pulposo polysp.?—*L. odorata* fol. ovatis sparsis scabris. Oceanic tree. *Lolanwara* of Rumphius. Family Hesperidia."—Raf. Fl. Tellur. 2: 34. 1836 [1837]. This generic name first appears as a *nomen nudum*, Raf. op. cit. 1: 16. 1836 [1837].

*Lolanara* Raf. and *L. odorata* Raf. were duly entered in Index Kewensis 2: 108. 1894, the position of the genus being indicated as: "An SAPO-TACEA?—Cf. Hassk. Neuer Schl. zu Rumph's Herb. Amboin. 55." The generic name is not listed by de Dalla Torre and Harms, Genera Siphonogamarum. When I was attempting to determine the status of the various forms described by Rumphius in his monumental Herbarium Amboinense<sup>2</sup> and the numerous binomials based by later authors on that work, naturally handicapped by the limited library facilities available in Manila, where the task was accomplished, I did not have access to Rafinesque's work and overlooked the entry in Index Kewensis. Heyne's<sup>3</sup> disposition of *Lignum clavorum* Rumph., the key to the proper reduction of *Lolanwara odorata* Raf., appeared in the same year that my work was published, he referring the plant that Rumphius described and illustrated to *Ochrocarpus ovalifolius* T. Anders., but it should be noted that Pierre had reduced *Lignum clavorum* Rumph. to *Calysaccion excelsum* Pierre as early as 1896, Bull. Soc. Linn. Paris 2: 1225. 1896. As no botanical material from Amboina or its neighboring islands representing *Lignum clavorum* Rumph. was available to me, I could only accept Teysmann's suggestion, as listed by Hass-

<sup>1</sup> The original spelling of the generic name was *Ochrocarpos*, which I have retained. Most authors have used the form *Ochrocarpus*.

<sup>2</sup> MERRILL, E. D. An interpretation of Rumphius's Herbarium Amboinense. 1-595. 1917.

<sup>3</sup> HEYNE, K. De nuttige planten van Nederlandsch-Indië 3: 257. 1917.



karl, that some genus of the Sapotaceae was represented; although here it should have been evident that some other family was represented from the Rumphian description if not from the illustration. Earlier, Henschel had referred the Rumphian entity, with doubt, to *Calophyllum spurium* Choisy, the family being correct, but the genus manifestly wrong. See also Lam, Bull. Jard. Buitenzorg III. 7: 247. 1925. Thus to the synonymy of *Ochrocarpos* Thouars (1808) (*Calysaccion* Wight, 1840), *Lolanara* Raf. (1837) is to be added. The synonymy of this much named species is as follows:

*Ochrocarpos odoratus* (Raf.) comb. nov.

*Lolanara odorata* Raf. Fl. Tellur. 2: 34. 1836 [1837].

*Calophyllum excelsum* Zoll. & Mor. Nat. Geneesk. Arch. Ind. 2: 582. 1845; Hassk. & Zoll. Flora 30: 661. 1847.

*Calysaccion ovalifolium* Choisy, Mém. Soc. Phys. Hist. Nat. Genève 12: 425. 1850 (Guttif. Ind. 45).

*Mammea excelsa* Planch. & Triana, Ann. Sci. Nat. IV. Bot. 15: 244. 1861.

*Calysaccion obovale* Miq. Fl. Ind. Bat. Suppl. 500. 1862; A. Gray, Proc. Am. Acad. Arts Sci. 5: 315. 1862.

*Calysaccion tinctorium* Seem. Fl. Vit. 13. t. 9. 1865.

?*Calysaccion Horstii* Teysm. & Binn. Cat. Hort. Bogor. 205. 1866, *nom. nud.*

*Ochrocarpus ovalifolius* T. Anders. ex Hemsl. Bot. Challenger Exped. 1(2): 122, 234. 1885; Guppy, Solomon Islands 294. 1887; K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Südsee 449. 1901; Koord. & Val. Bijdr. Boomsoort. Java 9: 391. 1903; Baker f. Jour. Bot. 61: Suppl. 9. 1923.

*Ochrocarpus pachyphyllus* K. Schum. in K. Schum. & Holtr. Fl. Kaiser Wilhelms Land 51. 1889; K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Südsee 449. 1901.

*Ochrocarpus tinctorius* Drake, Ill. Fl. Ins. Mar. Pacif. 116. 1890; Lauterb. Bot. Jahrb. 41: 231. 1908.

*Ochrocarpus excelsus* Vesque in DC. Monog. Phan. 8: 525. 1893; Merr. Philip. Jour. Sci. 9: Bot. 115. 1914, 29: 398. 1926; Lauterb. Bot. Jahrb. 58: 6. f. 1, A-H. 1922, 59: 19. 1924; Kanehira, Bot. Mag. Tokyo 45: 330. 1931, Fl. Micrones. 240. f. 111. 1933, Jour. Dept. Agr. Kyushu Univ. 4: 372. 1935; Hosokawa, Bull. Biogeogr. Soc. Japan 5: 145. 1934, 7: 196. 1937; Christoph. Bishop Mus. Bull. 128: 147. 1935.

*Calysaccion excelsum* Pierre, Bull. Soc. Linn. Paris 2: 1225. 1896.

*Ochrocarpos obovalis* Safford, Contr. U. S. Nat. Herb. 9: 335. 1905.

*Lignum clavatum* Rumph. Herb. Amb. 3: 97. t. 64. 1743.

The species is a very widely distributed one in Malaysia, Micronesia, and western Polynesia, having been recorded by various authors, under various names, from Java, Sangian (Sunda Strait), Christmas Island (south of Java), Borneo, Banguay, the Moluccas, Timor, Kei Archipelago, Admiralty Islands, New Guinea, Bismarck Archipelago, Solomon Islands, Marianas, Caroline and Palau Islands (Guam, Saipan, Tinian, Rota, Pagan, Truk, Palau, Kusai, Ponape), Fiji, and Samoa. All authors are in agreement that it is a littoral tree, and doubtless it is to be classed among those species whose fruits or seeds are adapted to dissemination by floating in salt water. I have examined the following specimens:

PHILIPPINES: Mangsi Island, between Balabac and Borneo, *Wilkes Expedition* (G), originally identified as representing *Garcinia mangostana* Linn. and later corrected to *Calysaccion obovale* Miq.; this is a record new to the Philippine flora. BORNEO: Banguay Island, *Castro & Melegrito 1412*. JAVA: Pandeglang, *Netherl. Ind. For. Serv. Ja. 2625*. MOLUCCAS: Wetar and Boeroe Islands, *Netherl. Ind. For. Serv. bb.*

27281, 22702. SOLOMON ISLANDS: Owa Raha Island, *L. J. Brass* 2081. MARIANAS ISLANDS: Guam, *Guerrero* 755; Tinian, *Kanehira* 1066. CAROLINE ISLANDS: Palau, Babeldaob, *Kanehira* 5040. FIJI: *Seemann* 46 (G) (isotype of *Calysaccion tinctorium* Seem.), *A. C. Smith* 1190 (G).

Various recorded VERNACULAR NAMES are *chopak* (Tinian), *chopag* (Guam), *fetau* (Samoa), *kapurantia* (Amboina), *kembang satoe* (Java), *loro waran*, *lolan waran*, *lolan wakan* (Amboina), *luas* (Truk), *lues* (Ponape), *ogoldveesak* (Palau), *oyag* (Fiji), *oyagu* (Truk), *manapau* (Samoa), *tatarat* (Bismarck Archipelago), *lalan bitauer*, *mat-tabue*, *mattabuen* (Buru), *vetao*, *uvitao* (Fiji).

Thus a rather formidable synonymy has been built up over the course of years, in part due to the fact that botanists working in different centers did not have access to material in other institutions, and were thus obliged to depend on not always too satisfactory descriptions, and in part, doubtless, due also to frank differences of opinion as to the limits of this or that pro-

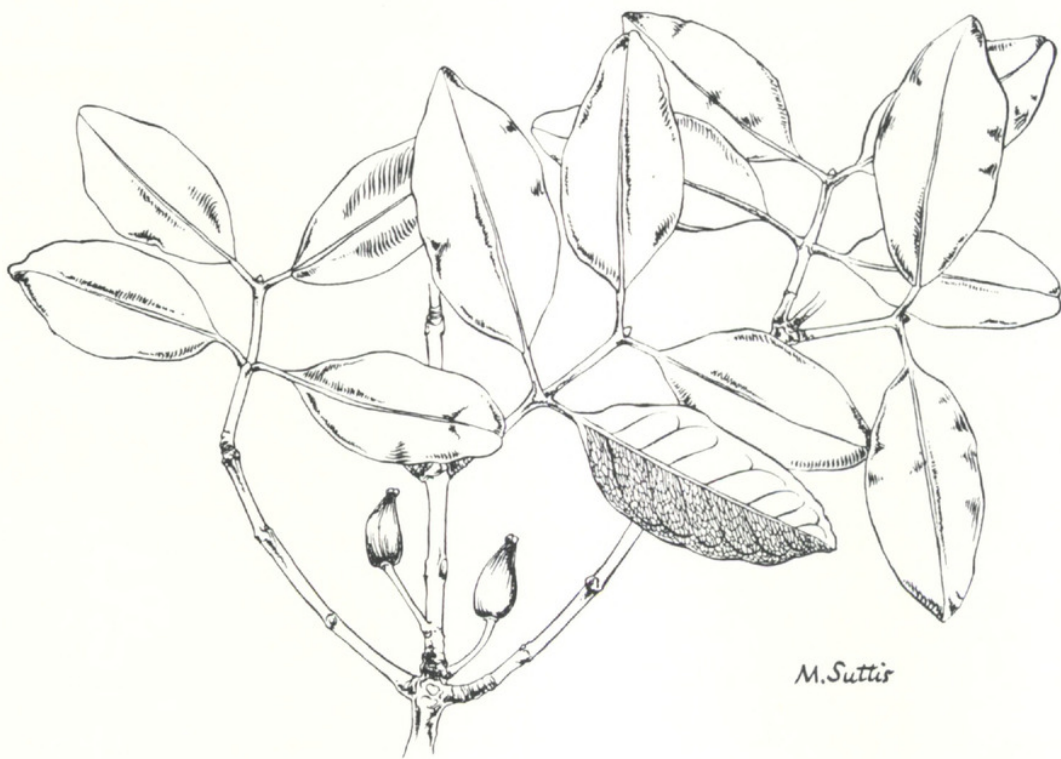


FIG. 1. *Ochrocarpos glaucus* Merr.: a fruiting branchlet drawn from the type,  $\times$  about  $\frac{1}{3}$ .

posed species. The species is remarkably uniform in its various characters throughout its wide range.

*Ochrocarpos glaucus* sp. nov. FIG. 1.

Arbor 15–18 m. alta, glaberrima (floribus ignotis), ramis ramulisque pallidis plus minusve longitudinaliter rugosis, ultimis 1.5 mm. diametro; foliis crasse coriaceis, oblongo-ellipticis, 6–10 cm. longis, 3–4 cm. latis, obtusis vel rotundatis, basi subrotundatis vel late acutis, supra pallide olivaceis, nitidis, subtus glaucis, nervis primariis utrinsecus 7–10, subtus paullo elevatis, haud perspicuis, arcuato-anastomosantibus, utrinque sub-



dense reticulatis, costa subtus elevata, crassa; petiolo 1 cm. longo; floribus ignotis; fructibus solitariis, in axillis defoliatis, immaturis inaequilateraliter anguste ovoideis, sursum plus minusve angustatis, crasse subrostratis, in sicco castaneis, sublaevibus, 2 cm. longis et 1 cm. diametro; sepalis caducis.

SAMOA: Savaii, above Matavanu, *Christophersen & Hume 2029*, July 15, 1931, in medium wet forest, alt. about 900 m., a tree 15–18 m. high, fruits green. Type, herb. Arnold Arboretum.

Although the flowers of this species are unknown and the fruits are immature, it clearly represents an undescribed species of *Ochrocarpos*, characterized by its small leaves which are distinctly glaucous beneath. It, with *Christophersen & Hume 2053*, from the same locality, is mentioned by Christophersen in a note following *Ochrocarpus excelsus* Vesque, Bishop Mus. Bull. 128: 147. 1935, as possibly representing an undescribed species.

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Merrill, Elmer D. 1945. "Ochrocarpos odoratus (Rafinesque) Merrill, a New Name For a Much Named Species, With a New Species from Samoa." *Journal of the Arnold Arboretum* 26(1), 93–96. <https://doi.org/10.5962/p.185518>.

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