

POLYSCIAS VERTICILLATA (ARALIACEAE), A NEW SPECIES
FROM THE SOLOMON ISLANDS¹

BENJAMIN C. STONE

THE GENUS *POLYSCIAS* IS REPRESENTED on many Pacific Islands by local species, some of them narrow endemics. Some islands or archipelagoes possess two or more species, excluding the frequently cultivated forms (*Polyscias fruticosa*, *P. pinnata*, *P. scutellaria*, and *P. guilfoylei*), which are nearly ubiquitous. Thus in Micronesia, Kusaie is the sole habitat of *Polyscias subcapitata* Kanehira; in the Society Islands, *P. tahitensis* (Nad.) Harms is a local endemic; New Caledonia has a number of species exclusively, some of which, at least, are thought to form the separate genus *Tieghemopanax*; *P. corticata* Gibbs and *P. joskei* Gibbs are found only in Fiji; *P. neo-ebudara* (Guillaumin) B. C. Stone, *P. excelsa* (Guill.) Stone, and *P. nusedhul* (Guill.) Stone are strictly New Hebridean; and New Guinea also has several endemic species. Therefore, it is not surprising that in a study of specimens of *Polyscias* from the Solomon Islands an undescribed species was found among collections from that region, which still remains a virtual "terra incognita" from the botanical point of view.

Although the genus *Polyscias* has been involved in a number of taxonomic questions at the generic level, for example, the distinguishing of the genus *Tieghemopanax* R. Viguier, mentioned above, and the genus *Nothopanax* Miquel (now treated as a synonym), the species described in this paper corresponds in all pertinent generic features with *P. pinnata* J. R. & G. Forster, which is the type species of the genus, and therefore, presents no difficulties of generic placement. Furthermore, it is reasonably distinctive in its specific characters, though it seems to be of close affinity to *P. multijuga* (A. Gray) Harms, of Fiji, and somewhat less close but similar to *P. grandifolia* Volkens of Micronesia. From the Fijian *P. multijuga*, this new species differs in the structure of the inflorescence, having verticillate secondary branches bearing terminal and lateral umbellules, rather than having the secondary branches irregularly but mostly alternately arranged on the main rachis and bearing numerous lateral, short-pedunculate umbellules. Furthermore, the new species exhibits a marked, though short, columnar style, from which the two stylose stigmas diverge, rather than the disjunct styles characteristic of *P. multijuga*. From *P. grandifolia* this Solomon Islands species differs in its considerably taller habit (the Micronesian plants are rarely more than 4 m. tall), as well as in the

¹This is the fifth in a series of studies of plants of the Solomon Islands. The previous papers are listed in Proc. Biol. Soc. Wash. 76: 1. 1963.

structure of the inflorescence, while the Micronesian plants share the more open, non-verticillate branching characteristic of *P. multijuga* and, indeed, of many other species of *Polyscias*. Furthermore, *P. grandifolia* shows

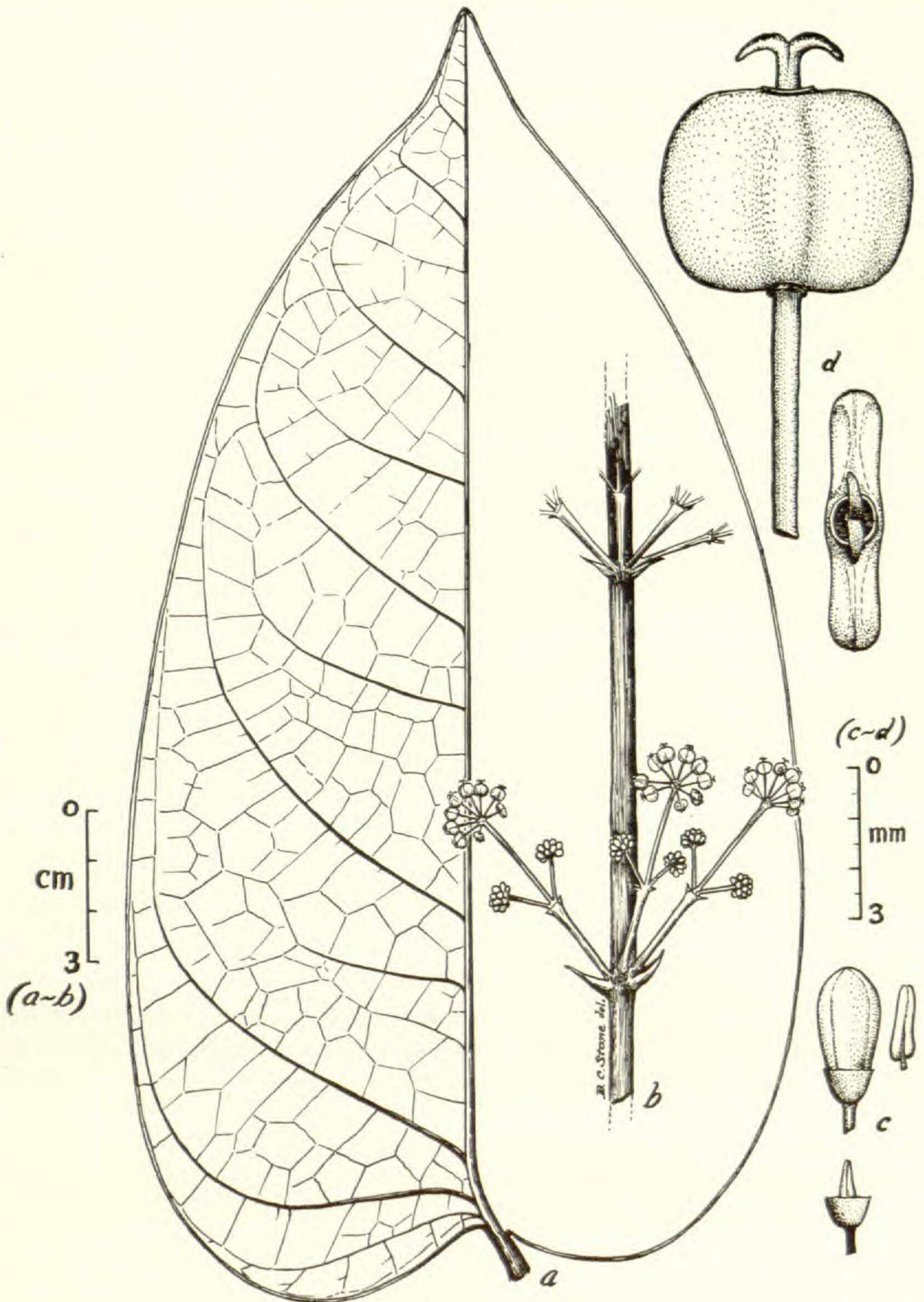


FIG. 1. *Polyscias verticillata* B. C. Stone. a, leaflet, showing venation; b, portion of an inflorescence; c, flower (in bud), a stamen, and (below) bud with corolla removed, showing calyx and styles; d, two views of a mature fruit.

little or no styler process on the bilocular fruits, and its leaflets are borne on petiolules 1 cm. or more long, whereas in this new species, the petiolules are at most 6 mm. long. Finally, the leaflets of *P. grandifolia* are usually minutely and rather distantly serrulate-denticulate; those of the species described here are entire.

Polyscias verticillata B. C. Stone, sp. nov.

FIG. 1.

Arbor parva ad 7 alta, foliis imparipinnatis ad 60 vel 90 vel ultra (?) cm. longis, 4 (in specimine typico, sed certe plus ultra)-jugatis, petiolo crasso stramineo ad 30 cm. longo basi ad 1 cm. diam. vaginante, marginibus vaginae angustis ca. 6-7 cm. longis; internodiis foliorum ca. 8-12 cm. longis; nodiis subtorulosis; foliolis oppositis breve petiolatis, petiolulis ca. 5-6 mm. longis, laminis oblongis apice acuminato-caudatis basi subcordatis, ca. 27 cm. longis, ca. 13 cm. latis, margine minute revolutis, costis subtus prominentibus supra subprominentibus, nervis lateralibus patentiarquatis alternis subtus prominentibus; inflorescentia verticillati-paniculata, rachibus majoribus ca. 8, ad 45 cm. longis, nodosis, nodiis bibracteatis bracteis deltoideo-lanceolatis 6-8 mm. longis caducis cum ramulis 3-5 in verticillo dispositis, ramulis ad 4 cm. longis ad medium nodosis bibracteatis (parte basi 1-2 cm. longa, apice 1-2 cm. vel ultra); umbellulis fere 10-14-floris pedunculatis, pedunculis umbellularum centralium 1-2.2 cm. longis, pedunculis umbellularum lateralium brevioribus ad 1 cm. longis, oppositis rare ternatis; floribus parvis pedicellatis, pedicellis gracilibus 1-4 mm. longis; calycis tubo obconico ca. 0.8 mm. longo ore truncato; corolla ca. 2 mm. longa; petalis 5, tenuiter deltoideo-ovatis; staminibus 5 filamentis brevibus antheris ca. 0.7-1.4 mm. longis; stylo unico ca. 0.6 mm. longo, stigmatibus 2, in fructu ca. 1 mm. longis; fructu valde compresso biloculari orbiculato basi cordato apice styli stigmatibus divaricatis coronato; fructu (subimmatureo ?) ca. 4-5 mm. lato, ca. 4 mm. longo, pallide luteo-virescenti.

HOLOTYPE: Solomon Islands (Australian Territory of Papua and New Guinea), Bougainville Island, Siwai, January 28, 1933, *J. H. L. Waterhouse* 74 (US 1484858); isotypes (BISH, Y).

The specific epithet refers to the verticillately arranged branches of the inflorescence. Waterhouse records the species as a small tree about 20 feet high, with glossy leaves and large heads of small blossoms. The local name is "pupung."

DEPARTMENT OF BOTANY
UNIVERSITY OF MALAYA
KUALA LUMPUR