

IV. DACRYODES IN NEW GUINEA

by

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(Rijksherbarium, Leiden)

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Thusfar the genus *Dacryodes*, as far as the Australasian area is concerned, was only known to occur in Western Malaysia (including the Philippines), with a centre in the Malay Peninsula, Sumatra and Borneo. Only one, out of 13, species is extending towards Cochin China in the West and the Philippines and N. Celebes in the East and another is known from the Malay Peninsula, British N. Borneo and the Philippines (cf. the senior writer's paper in Bull. Jard. Bot. Buitenzorg, sér. III, Vol. XII, 1932, 334—366).

Thus, *Dacryodes* was so far considered one of the many exclusively or preponderantly west-malaysian genera which do not or hardly cross Wallace's line.

This is why the discovery of a true representative of this genus in central New Guinea and a doubtful one in N.E. New Guinea is a little surprising, since no representatives are known from the interjacent region. Dr Van Steenis tells us that similar cases from other families have recently come to our knowledge, e.g. *Physistelma* (*Asclep.*; Asia-Java, Borneo/New Guinea), *Koompassia* (*Legum.*; Mal.Pen., Sum., Borneo/N. G.), *Cyrtostachys* (*Palmae*; Mal. Pen., Sum., Borneo/N. G. and Carolines), *Nenga* (*Palmae*; Annam, Mal. Pen., Sum./N. G. and Carolines), *Ploiarium* (*Theac.*; S.E. Asia, Mal. Pen., Sum., Borneo/P. Gebeh [W. of N. G.]), *Stephanotis* (*Asclep.*; Afr., Asia, Mal. Pen., Borneo/N. G.), and *Barclaya* (*Nymphaeac.*; Asia, Sum., Mal. Pen., Borneo/N. G.).

There are numerous others, in which the gap is less striking. The explanation may in many cases be a simple lack of knowledge, but it is doubtful whether this is applicable to all cases (cf. Lam, on "anomalous areas", *Blumea* V³, 1945, 628—633).

The species has been described underneath by the junior writer.

1. *Dacryodes papuana* A. M. Husson, nov. spec. — *Fig. 1.*

Arbor alta glabra, ramulis subgracilibus lenticellatis laevibus, ca. 0.4—0.6 diam., medulla aresinosa. *Folia* estipulata, 2½-jugata (1 fol. videmus), petiolis teretibus, ima basi in parte superiore vix complanatis, 5—5½ cm

longis, rachidis partibus interjugalibus $3\frac{1}{2}$ —4 cm longis, medulla aresinosa; foliola elliptica, basi subinaequalia rotundata, integra, apice breviter obtuse acuminata, subcoriacea in sicco fusco-olivacea, utrinque nitentia, $8\frac{1}{2}$ — $11\frac{1}{2}$ cm longa, 4—5 cm lata, acumine 0.7—0.9 cm longo et 0.4—0.5 cm lato; petiolulis canaliculatis $1\frac{1}{2}$ —2.2 cm longis, terminalibus 1.7—3 cm longis; costa subtus valde, supra paulo prominens, nervis secundariis utrinque 7—11, angulo ca. (40°)— 50° —(70°) adscendentibus, praecipue prope margines curvatis ibidemque a margine 1—2 mm distantibus, subtus in sicco paulo prominentibus, reticulatione conspicua a nervis secundariis vix distinguente. *Inflorescentiae* floresque ignoti. *Infructescentiae* depauperatae, 11—12 cm longae, laterales, drupae ellipsoideae, apice paulo excentricae, 2.7—3 cm longae, $1\frac{1}{2}$ cm diam., pericarpio glabro carnosio, putamen generis characteribus, 0.3 mm crassum, monopyrenum, pedicello 7—10 mm longo, calyce persistente annulare 5 mm diam.

WEST CENTRAL NEW GUINEA — 2 km S.W. of Bernhard Camp, Idenburg River, occasional on slopes, primary forest, 650 m: *Brass & Versteegh 13535* (L, A), tree 30 m high, bark with some colourless resin, April 1939, *type specimen* in Herbarium Leiden.

Remarks. The absence of resiniferous ducts in the medulla of the branchlets is not unusual in the genus but petioles without such ducts are thus far only known in *D. scandens* (Husson) and *D. rugosa* (Bl.). H. J. Lam.

The nearest allies of the new species seem to be *D. macrocarpa* (King) H. J. Lam (Mal. Peninsula and Sumatra to Luzon) and perhaps *D. elmeri* H. J. Lam (Brit. North Borneo). From the former it differs by the lack of resiniferous vascular bundles in both branchlets and petioles (*D. macrocarpa*: only in petioles) and its smaller fruiting calyx (*D. macr.*: 0.5—0.8 cm); from the latter by the not flattened petioles, the lack of resiniferous bundles, the smaller leaflets (*D. elmeri*: $12\text{--}20 \times 6\text{--}8$ cm), the little prominent secondary nerves and the much smaller fruits (*D. elm.*: $4.1\text{--}4.7 \times 2\text{--}2.3$ cm).

2. *Dacryodes?* spec.

D. papuana does not seem to be the only *Dacryodes* species in New Guinea. We examined a specimen collected by Clemens at Wareo, Morobe Distr. This looks very much like a *Dacryodes*, but fruits are wanting and the flower buds are too young for examination. We cannot identify the specimen with any burseraceous species known to us (it does not show the *Haplolobus* type, which never has the inflorescences tomentose like this) and, refraining from prematurely naming it, we are giving a preliminary description here:

Tall tree. Branchlets stout (0.6—0.8 cm diam.), medulla without resiniferous ducts, innovations including young inflorescences conspicuously fulvous-tomentose. *Leaves* about $2\frac{1}{2}$ (—?)—jugate, petiole with rhachis, petiolules and midrib on either side and secondary nerves underneath densely puberulous; petioles flattened above at base, almost terete higher up, medulla with several (4—5) fairly large collateral resiniferous vascular bundles, 4— $8\frac{1}{2}$ cm long; leaflets fairly rigid, ovate to oblong, 4.5—14 cm long, 2.8—7.2 cm broad, glabrous except nerves, margins entire, base rounded to broadly acute, sometimes somewhat inequilateral, apex subabruptly bluntly acuminate, acumen 0.3—1 cm long; petiolules 0.4—1.2 cm long; nerves not

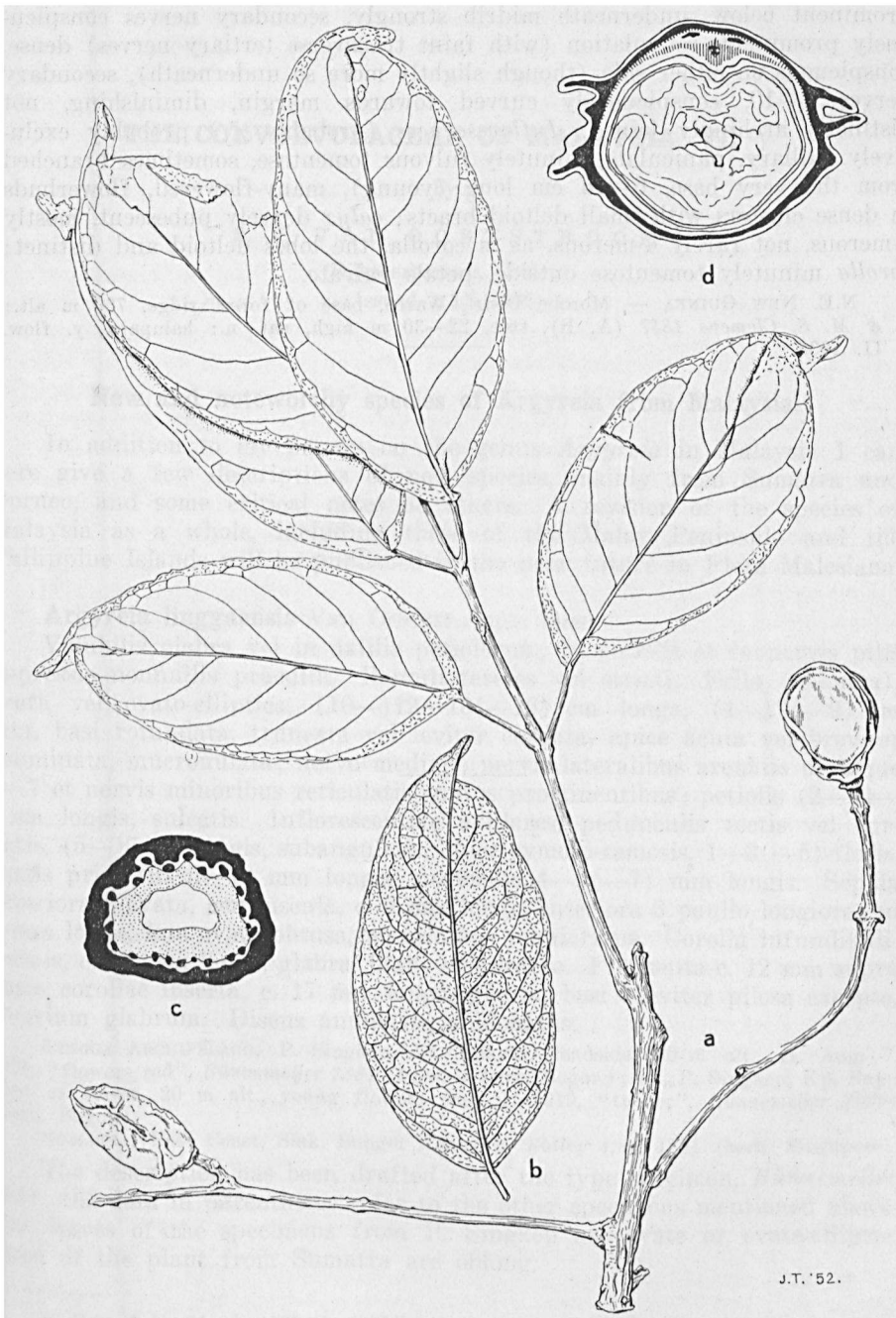


Fig. 1 — *Dacryodes papuana* Husson; a. branchlet with some fruits; b. leaflet showing venation; c. cross-section through petiole; ditto through fruit (pericarp wrinkled by drying process). — from *type specimen*.

prominent below, underneath midrib strongly, secondary nerves conspicuously prominent, reticulation (with faint transverse tertiary nerves) dense, conspicuous on either side (though slightly more so underneath), secondary nerves 6—10, conspicuously curved towards margin, diminishing, not distinctly archingly joined. *Inflorescences* (probably ♂) probably exclusively axillary, paniculate, minutely fulvous tomentose, sometimes branched from the very base, 6—16 cm long (young), many-flowered, flowerbuds in dense clusters with small deltoid bracts; *calyx* densely pubescent, mostly 3-merous, not rarely 4-merous, as is corolla, the lobes deltoid and distinct; *corolla* minutely tomentose outside, petals valvate.

N.E. NEW GUINEA — Morobe Distr., Wareo, base of forest ridge, 750 m alt.: J. & M. S. Clemens 1837 (A, B), tree, 22—30 m high, nat. n.: halupapa, y. flow. 7. II. 1936.