Notes on the Systematy of Solomon Islands’ Plants and some of their New Guinea Relatives, X.

by

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X. Sapotaceae

The Sapotaceae of the Solomon Islands are in general not very well known, and material of one of its most interesting genera, Chelonespermum, was so scrappy that for a long time it remained a rather doubtful one. In the large collections by T. C. Whitmore from many parts of the Solomons this genus turns out to be well represented and seems to be sufficiently distinct to keep it separate from Burckella.

Apart from the specimens in Chelonespermum, two new species in Burckella and Palaquium are found, descriptions of which will be given below. In addition we will add some remarks on Chelonespermum.

The sheets examined were all at LAE; there are replicates at BSIP, K, L, SING and US. The last two series are incomplete.

A. Burckella Pierre

Burckella sorei Royen n.sp. Fig. 1

Arbor magna. Ramuli subcrassi, foliis, bracteis et flores apice conferta, dense pallide brunneo-sericei, glabrescentes. Folia apice ramulorum conferta, pseudo-verticillata, oblongo-elliptica, 10–14 × 4–6 cm., apice obtuse acuminata, basi rotundata vel late cuneata interdum obliqua, nervi secundarii 17–22 pares, arcuatin conjuncti, tertiarii reticulati; utrinque glabra. Petiolus 2.2–4 cm. longus, glaber, supra late canaliculatus. Flores fasciculii; pedicelli 3–6 mm. longi, dense ferrugineo-sericei. Sepala 4, ovata, 2.25 × 1–1.5 mm., subacuta, dorsa subcarinata, extus dissepte sericea, apice ferrugineo-plumulosa, intus glabra. Corolla 8-lobata, glabra sed apice plumulosa (ultimo glabrata?). Stamina 15, filamenta pilosa, antherae pilosa apice solis. Ovarium 4-loculare, glabrum. Fructus obovoideo-ellipsoideum, usque ad 7.5 × 3.8 cm., 1-spermus, glabrus. Semen usque ad 5 × 2.8 cm., cicatrice testam 2 parte includente irregulariter bullata.

Tree up to 33 m. with dense crown. Buttresses steep and broad, up to 2.4 m. Bole fluted. Bark surface dark, dull brown, closely fissured, in part with elongate, loose scales. Cut inner bark orange-brown or pink, with copious white exude. Wood orange-yellow or pink-brown. Branchlets relatively slender, densely pale brown, sericeous, ultimately glabrous. Leaves conferted at tip of flushes,
Fig. 1. *Burckella sorei*.
Whitmore BSIP 2771. A Habit, B Calyx, C Corolla. All sizes in mm.
sometimes seemingly whorled, limb oblong-elliptic, 10–14 by 4–6 cm., short obtusely acuminate at tip, rounded to broadly cuneate at base and sometimes asymmetric; midrib narrowly crested above, rounded below, lateral nerves 17–22 on either side of midrib, inconspicuous above, distinct below, archingly joined, nervation widely reticulate, hardly visible above, conspicuous below; glabrous on either side; Petiole 2.2–4 cm., broadly grooved in the apical part, flat in lower parts, glabrous. Flowers closely bundled at tip of branchlets; pedicels 3–6 mm. long, densely ferruginous, silky. Sepals 4, ovate, 2–2.5 by 1–1.5 mm., subacute, slightly crested on outside, scattered silky hairy on inside, with a plume of rusty hairs at tip, glabrous on inside, the 2 inner sepals with membranous margins. Corolla-tube c. 1 mm. long, glabrous, lobes 8, ovate, 2–3 by 1–1.2 mm., obtuse, plumose at tip (ultimately glabrous?). Stamens 15, c. 1 mm. long, filaments hairy, anthers hairy at tip only. Ovary 4-celled, glabrous, style c. 1 mm. long, glabrous. Fruits obvoid-ellipsoid, up to 7.5 by 3.8 cm., subacute at tip, glabrous, 1-seeded; pericarp fleshy. Seed up to 5 by 2.8 cm., scar covering 3 of entire seed, roughly knobly.

SOLOMONS: Guadalcanal: BSIP 2771, Rere R. c. 3 miles inland, T. C. Whitmore, Nov., flowers, Holotype in SING.

Santa Ysabel: BSIP 2477, Garona, a few miles W. of Maringe Lagoon, T. C. Whitmore Oct., fruits.

A lowland rain-forest species.

The flowers are known in the bud stage only and details particularly those of the stamens and ovary, are incomplete.

This species, which by its 8 corolla-lobes belongs to Burckella, could not be matched against any of the known Burckella species, not even against the very variable Burckella obovata Pierre, from which it differs by the larger number of lateral nerves coupled with smaller leaves. The calyx of B. sorei is much smaller than that of B. obovata, but the flowers being young, this detail might not be reliable.

The species is named in honour of Mr. J. Sore, a tree-climber working for the Forestry Department B.S.I.P., and living on Guadalcanal at Bambasu village in Longgulenggu near the Rere R. where the type material was collected.

Kwara’ae names: Faigona, Kona.

**B. Chelonespermum Hemsley**

This genus was described by Hemsley (Ann. Bot. 6, 205, 1892) based mainly on the peculiar seeds that separate it immediately from the closely related genus Burckella. Of the four species described only *C. majus* had leaves (though fragmentary) and fruits, while *C. fijiense* was based on leaves and seeds only. The other two species, *C. minus* and *C. unguiculatum* are based on
seeds only. In 1959 I described a new species (Nova Guinea N.S. 10, 140) C. banikiense, from Banika Island, in the Russells, of which at that time no fruits were known. The reason to place this species in Cheloneispernum and implicitly the maintaining of that genus against Burckella was the number of corolla-lobes in Cheloneispernum. In Burckella this is 8, in Cheloneispernum 4, rarely 5. Additional to this, though the differences are overlapping, are the number of cells in the ovary, viz. 1-4 in Cheloneispernum, (3–) 4–8 in Burckella.

Though these differences are small, they are not smaller than is recognised in many other groups in the Sapotaceae, for instance Madhuca and Burckella 4, Palaquium 6 sepals, though in both Madhuca, Burckella and Palaquium occasionally 5 sepals are found.

It is doubtful whether the fruits, and more in particular the seeds ultimately can be used as sufficiently different to keep the genera apart, emphasizing only their close relationship. In Burckella the scar, representing that part of the seed with which it is attached to the placenta, is usually smooth, without any appendages, while those of Cheloneispernum have a most intricate system of crests, knobs and protuberances. However, in Burckella magusum, described by myself in 1959 (1.c.) the scar is very irregularly grooved and knobbly, and the same applies to Burckella sorei described in this paper.

In C. banikiense, material of which turned up several times in Whitmore’s collection, the seeds show the same type of scar as in the two Burckella’s mentioned in the previous paragraph. To complete the description given in 1959, that of the fruits and seeds follows here.

C. banikiense. Fig. 2. Amended description. Fruits globose, narrowed at base, up to 3.5 cm. across, pericarp fleshy-woody, glabrous; 1-seeded. Testa of seed narrow, brown, glossy, scar covering about $\frac{3}{4}$ of entire seed, knobbly; seeds ellipsoid, c. 2 by 1.2 by 1 cm. obtuse at either end.

Fig. 2. Cheloneispernum banikiense.
Whitmore BSIP 1512. A Fruit. B Seed. All sizes in mm.

Shortland: BSIP 5876, N. at 1 mile west of Kupola R., Whitmore's Collectors, flowers, May.

Kwara'ae names: *Faigon*, *Kona*.

C. Palaquium Blanco

*Palaquium masuui* Royen n.sp. Fig 3.


Tree up to 21 m., d.b.h. 45 cm. Buttresses up to 2.4 m. Bark surface dark brown, smooth, with close, fine superficial fissures. Cut inner bark red or orange-brown, fibrous, with sticky white exudate. Sapwood pink or orange-fawn, heartwood dark dull brown or red. Branchlets rusty sericeous, ultimately glabrous. Stipules lanceolato-subulate, 2–3 mm. long, densely rusty hairy. Leaves (sub-) crowded at tip of branchlets, limb obovate, 6–14 by 4–7 cm., obtusely acuminate at tip, cuneate at base and decurrent along upper side of petiole, midrib shallowly grooved above and longitudinally crested, prominent and rounded below, lateral nerves 7–9 on either side of midrib, diminishing until inconspicuous along margin, prominulous and grooved above, prominent below, nervation transverse, slender; glabrous except above, greyish hairy at the extreme base. Petiole 2–4 cm. long, grooved above, rounded below but crested in basal part, densely rusty or greyish silky, becoming glabrous. Flowers in 2–4 flowered, axillary clusters or solitary; pedicels angular, 2–2.8 cm. long, densely appressed, rusty hairy. Sepals 6, outer 3 ovate-triangular, 3–4 by 3–3.5 mm., obtuse or obtusely acuminate, inner 3 more lanceolate-ovate, 3.5–5 by 3–3.5 mm., rounded, crested, all sepals appressed rusty hairy on outside, sparsely hairy on inside in apical part only, inner sepals plumose at tip and glabrous along the membranous margins.
Fig. 3. *Palaquium masuui*.
Corolla-tube 2–3 mm. long, lobes 6, elliptic or oblong-elliptic, 5–6 by 2.5–3 mm., rounded or truncate at tip; corolla on outside appressed rusty hairy on tube and along part of midrib or corolla-lobes, glabrous on inside. Stamens c. 15, c. 6 mm. long, filaments c. 4.5 mm. long, glabrous, anthers c. 2.5 mm., connective prolonged, truncate or bifid at tip, appressed rusty hairy on outside. Ovary 6-celled, hemiglobose or broadly ovoid, 2–3.5 mm. across, appressedly rusty hairy, style up to 15 mm. long, glabrous. Fruits not known.

SANTA CRUZ: Vanikoro: BSIP 1638, E. side of Saboe Bay, T. C. Whitmore April, holotype in SING. BSIP 1814, ridge near Peou, T. C. Whitmore, May.

A species of primary or old secondary lowland rain forest.

This species is related to *Palaquium neo-ebudicum* Guillaumin, from the New Hebrides. It differs from that species by its appressed pubescence of branchlets, petioles and pedicels, by its smaller number of lateral nerves, by the pubescence of the sepals which are hairy on outside and only so on inside in the apical part, while those of *P. neo-ebudicum* are glabrous on the outside. Also the corolla has a pubescence on outside, that of *P. neo-ebudicum* being glabrous.

This species is named in honour of Mr. W. Masu'u, a tree-climber from Totonga Village, Longgolenggu, Guadalcanal, who worked for the Forestry Department, B.S.I.P., between 1962 and 1964.