NOTES ON ASIATIC ANACARDIACEAE

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SUMMARY

Mangifera parkinsonii Fischer and M. whitmorei Kochummen are referred to Swintonia. Gluta celebica is described as a new species from an ultrabasic area in Sulawesi. Two new species of the genus Semecarpus, S. lineatus and S. longipes, are described from Sabah, Borneo.

SWINTONIA

Swintonia parkinsonii (Fischer) Kosterm., comb. nov.

Mangifera parkinsonii Fischer, Kew Bull. (1927) 84.

Mukherji, Lloydia 12 (1949) 133, referred this *Mangifera* species already to *Swintonia* and thought it to be conspecific with *S. floribunda* Griff.

Swintonia whitmorei (Kochummen) Kosterm., comb. nov.

Mangifera whitmorei Kochummen, Gard. Bull. Singapore 36 (1984) 190.

Mangifera pentandra auct. non Hook. f.: Ding Hou, Identif. Lists Males. Specim. no 57 (1979) quoad FRI 15820.

The type specimen (FRI 15820) has the long and slender-petioled lanceolate leaves typical for most Swintonia species and as in Swintonia the leaves are conspicuously clustered.

In Swintonia two distinct groups (sections) may be recognized: one with a lax inflorescence with rather large flowers on long and slender pedicels, the other with a very dense panicle with minute, almost sessile flowers. So far only one species of Mangifera (M. swintonioides Kosterm., ined.) resembles in its leaves Swintonia; its flowers, however, have only one fertile stamen, whereas Swintonia has 5 fertile stamens.

The other species of Mangifera, treated by Kochummen in the above mentioned paper, have all to be reduced. Mangifera longipes Griff. (which is M. laurina Blume) is not related at all to M. indica L. (quite different flowers); M. magnifica Kochummen is conspecific with M. rigida Blume, and M. quadrifida var. longipetiolata (King) Kochummen is conspecific with M. langong Miq.

Contrary to Ding Hou, I am of the opinion that Swintonia penangiana King has been wrongly incorporated in S. floribunda Griff.; it deserves full specific status and the two are easily distinguishable.

GLUTA

Gluta celebica Kosterm., spec. nov.

Arbor omnino glabra, ramulis cylindricis strictis rigidis, foliis alternantibus rigide coriaceis parvis oblongo-spathulatis obtusis basi cuneatis utrinque obscure laxe reticulatis, nervo mediano utrinque late prominulis, nervis obscuris pententibus paucis, petiolis brevibus, paniculis pseudoterminalibus longis, ramulis distantibus sat gracilibus, fructus immaturus ellipsoideus pustulatus. — T y p u s: *Meyer 11276*, Sulawesi (Celebes), Larona proposed hydro-electric Dam Reserve, E of Malili, W of Towuti Lake, 2°40' S, 121°10' E, July, y.fr. (L).

Tree glabrous in all its parts; branchlets stiff, erect, cylindrical, up to 5 mm diam., dense. Leaves scattered, stiffly coriaceous, oblong-spathulate, $(1-)2.5 \times 4-5(-7)$ cm, obtuse, base cuneate, both surfaces rather obscurely, smoothly reticulate (more distinct on the lower surface), nerves 9-12 pairs, erect-patent, thin, arcuate towards the margin, prominulous on both surfaces. Petiole 5-10 mm, flat to slightly concave above with decurrent prominulous midrib, base slightly thickened for up to 3 mm. Panicles pseudoterminal, up to 17 cm long with rather stout main peduncle and widely spaced, rather slender, up to 5 cm long branches which bear few short secondary branches. Pedicel 1 mm, articulate with its equal-sized branchlet. Sepals ovate, acute, 2 mm. Immature fruit cylindrical, glossy, pustular.

Distribution. Only known from the type locality, an ultrabasic area W of Towuti Lake, E of Malili, Sulawesi.

N o t e. The leaves are surprisingly similar to those of *Semecarpus paucinervia* of the Philippines, but the latter is puberulous. No further information by the collector is given but the locality. The Myrtaceous leaves, stiff and coriaceous, are typical for plants on bad soils (kerangas, ultrabasic).

SEMECARPUS

Semecarpus bunburyanus Gibbs in the broad sense accepted by Ding Hou (Fl. Males. I, 8: 512. 1978) includes in my opinion at least six well-distinguishable species. Apart from the true S. bunburyanus these are: S. subsessilifolia Merr., S. oblanceolatus Merr., S. scaberulus Merr., and two new species, as follows:

Semecarpus lineatus Kosterm., spec. nov.

Semecarpus bunburyanus auct. non Gibbs: Ding Hou, Fl. Males. I, 8 (1978) 512, p.p.; Identif. Lists Males. Specim. no 57 (1979) quoad SAN 49323, 57412.

Arbor parva, ramulis gracilibus glabris, foliis ad nodis linearibus aggregatis chartaceis glabris multinervosis longe acuminatis, paniculis multifloris plerumque axillaribus sparse minutissime

puberulis glabrescentibus, floribus subglomerulatis, sepalis triangularibus patentibus, petalis oblongis acutis subcoriaceis. — T y p u s: SAN 55161 (L, holo; SAN).

Small tree, up to 5 m tall and 10 cm dbh., usually smaller. Bark smooth, white; live bark dark red. Sapwood white, rather hard. Twigs slender, smooth, glabrous, furrowed longitudinally. Leaves verticillate at the nodes and apically, glabrous, chartaceous, linear, $(1-)1.5-2\times(20-)30-35(-43)$ cm, midrib prominulous on both surfaces, nerves above filiformous, below thin, prominulous, the basal ones erectpatent, forked near the margin, the upper branch arcuate, anastomosing with the next one, c. 23 pairs, in between shorter non-forked ones, reticulation lax, apex long-acuminate to long-acute, base tapered into the 1-1.5 cm long striate petiole of which the lower part is grey and slightly swollen. Buds greenish yellow. Panicles in the axils of the upper leaf whorls or subterminal, 15-20 cm long, very shortly, powdery, not very densely puberulous, glabrescent, the partial branches bearing the flowers in remote glomerules and these subtended by tiny, slender, acute bracts. Pedicels conical, thin, 0.5-1.5 mm. Flowers light green and pale red. Sepals triangular, patent, 0.25-0.5 mm. Petals thin, acutish, concave, somewhat fleshy, 2.5 mm long.

Ecology. In wet, evergreen forest, usually on poor soils.

Note. Semecarpus bunburyanus is easily recognizable by its subspathulate sessile or subsessile leaves, more or less auricled at their base. Our species is a weed tree with linear leaves with long thin petioles, quite different from the sessile ones of S. bunburyanus.

BORNEO. Sabah: Lahad Datu, Mt Silam, 700 m, sterile, SAN 22704 (SAN); ibid., mile 2, alt. 30 m, July, fl., SAN 55161 (L, holotype; SAN); ibid., gravel pit, sterile, SAN 22594 (SAN); ibid., Dec., fl., SAN 57412 (SAN); ibid., April, buds, SAN 49323 (SAN).

Semecarpus longipes Kosterm., spec. nov.

Semecarpus bunburyanus auct. non Gibbs: Ding Hou, Fl. Males. I, 8 (1978) 512, p.p.; Identif. Lists Males. Specim. no 57 (1979) quoad Amdjah 143, 476, 486, 491, 508, 956, BNBFD 4022, Clemens 26366.

Arbuscula, foliis aggregatis chartaceis glabris subbullatis oblongis vel rarius subobovato-oblongis conspicue vel brevissime acuminatis basi breviter cuneatis, utrinque minutissime reticulatis nerviis numerosis erecto-patentibus vel patentibus marginem versus arcuato anastomosantibus, petiolis gracilibus longis, paniculis pyramidalis puberulis, pedicellis minutis obconicis, sepalibus minutis triangularibus suberectis, petalis oblongo-lanceolatis sat longis, intus striatis glabris subcoriaceis patentibus. — T y p e: Amdjah 508 (BO).

Shrub or treelet up to 3.5 m tall, bole c. 5 cm diam. Branchlets rather slender, bearing a whorl of leaves and inflorescences (this part often thickened considerably), glabrous. Leaves dull, glabrous, chartaceous, subbullate, aggregate, oblong to rarely subobovate-oblong, $(6-)8-11(-14) \times (14-)24-30(-41)$ cm, long-acuminate (acumen conspicuous, obtuse, up to 3 cm) or very shortly acutely acuminate, base shortly cuneate; no papillae on the smooth, glossy, smoothly reticulate lower surface, midrib prominulous on the upper, prominent on the lower surface; nerves erectpatent (the lower ones patent), slender, prominulous, towards the margin arcuately

anastomosing, (11–)13–23 pairs. *Petiole* slender, (3–)5–7 cm long, above the decurrent midrib flanked by the narrow wings of the decurrent margins. *Panicle* pyramidal, lax, many-flowered, up to 40 cm (sometimes only 3 cm), main peduncle glabrous, the remote branches puberulous (hairs microscopic, stiff, erect-patent), the ultimate branchlets densely puberulous. *Pedicel* obconical, 3 mm. *Sepals* erect, stiff, triangular, sharply pointed, less than 1 mm. *Petals* bright yellow, patent, subcoriaceous, oblong-lanceolate, 3–5 mm, glabrous, inside longitudinally ribbed. *Stamens* 5. *Fruit* unknown.

E c o l o g y. In wet, evergreen forest, often on poor soils; along rivers and open places.

Note. Very different from S. bunburyanus Gibbs because of its very long slender petioles (leaves in S. bunburyanus sessile or subsessile); there are no papillae on the lower leaf surface; the flowers are bright yellow (in Ding Hou's description of S. bunburyanus the flowers are white). The leaves are initially completely glabrous.

BORNEO. Sabah: Tambunan, Tambato, near the river, Feb., buds, BNBFD 4022 (BO); Mt Kinabalu, Dallas, via Dusun, Sept., fl., Clemens 26366 (BO); northern part of E. Kalimantan, Bulungan, Sebuku R. area, G. Muarara Tagel, June, buds, Amdjah 143 (BO); ibid., Bukit Ulu, Sept., buds, Amdjah 476 (BO); ibid., Sept., fl., Amdjah 508 (type; BO); ibid., leaves only, Amdjah 491 (BO); ibid., sterile, Amdjah 486 (BO); Pembeliangan on Sebuku R., Nov., buds, Amdjah 956 (BO).