

ACERACEAE¹ (S. Bloembergen, Buitenzorg)

1. ACER

LINNÉ, Sp.Pl. (1753) 1054; PAX, Pfl.R. 8 (1901) 1; K. & V. Bijdr. 9 (1903) 252.

Trees or shrubs, buds with many perules. *Leaves* decussate, petiolate, entire, palmate or pinnate, appearing simultaneously with the flowers or later, exstipulate. Inflorescence racemose, corymbose or spicate, terminal with 2–4 leaves, or rarely terminal or axillary without leaves. Monoecious or dioecious, *flowers* actinomorphic, ♂ and ♀, ovary in the ♂ fls more reduced than stamens in ♀ fls. Calyx and corolla 4–5-merous. Stamens 4–10, mostly 8, hypogynous or perigynous. Disc extra- or intrastaminal. Ovary superior, 2-celled, laterally flattened, each cell with 2 ovules. *Fruit* a samara, splitting into 2, rarely 3, winged usually 1-seeded parts. Seed without endosperm, radicle elongate, cotyledons foliaceous, or thickened, plicate, involute or flat.

Distr. *Ca* 200 spp. in the N. hemisphere, only in Malaysia crossing the equator.

Notes. By BLUME, BENTHAM & HOOKER, MIQUEL, &c. this genus was included in the *Sapindaceae*. In Malaysia only one species.

1. *Acer niveum* BL. Rumphia 3 (1847) 193; PAX, Bot. Jahrb. 6 (1885) 293; *ibid.* 7 (1886) 207, *cum var. cassiaefolium*; WESMAEL, Bull. Soc. Bot. Belg. 29 (1890) 41, *cum var. praec.*; SCHWERIN, Gartenfl. 42 (1893) 228, *cum var. laurinum & praec.*; PAX, in E. & P. 3, 5 (1896) 267, 271; Pfl.R. 8 (1901) 4, 31; K. & V. Bijdr. 9 (1903) 254; BACKER, Schooffl. (1911) 272; HEYNE, Nutt. Pl. (1927) 987; KOORD. Fl. Tjib. 2 (1923) 153; MERR. En. Philip. 2 (1923) 493; STEEN. Bull. J.B.B. III, 13 (1936) 148.—*A. javanicum* (non BURM. f., 1768) JUNGH. Monatsber. Berl. Geogr. Ges. 1842; JUNGH. & DE VR. Tijd. Nat. Gesch. & Phys. 10 (1843) 138.—*A. laurinum* HASSK. *ib. nomen*; MQ. Fl. Ind. Bat. 1, 2 (1859) 582, Suppl. (1860) 200, 511; BOERL. Handl. 1 (1890) 281.—*Laurus alba* BL. Rumphia 3 (1847) 193, *in syn.*—*A. cassiaefolium* BL. *l.c.*—*A. philippinum* MERR. Gov. Lab. Publ. 35 (1906) 36.—*A. curranii* MERR. Philip. J. Sc. 4 (1909) Bot. 285.—**Fig. 1.**

Tree up to 48 m, clear bole up to 28 m by 70 cm, buttresses to 2 m high. At the start of the dry season foliate twigs sprout 2–4 together simultaneously from last year's buds; in flor. appearing in the axils of fallen leaves. Both flower and shoot-buds *ca* 4 mm long with 4–9 pairs of decussate *ca* 2 mm long caducous perules. *Leaves* simple entire glabrous, glossy dark green above, glaucous, whitish or light blue-grey below; petiole 1 $\frac{1}{4}$ –10 cm; blade elliptic to lanceolate, 3- to slightly 5-plinervous at the base, apex acuminate to tailed, tip subacute. Inflor. corymbose, either ♂ or ♀, rarely with few fls of the other sex, glabrous, 2 $\frac{1}{2}$ –10 (in fruit to 19) cm long; peduncle $\frac{1}{2}$ –3 $\frac{1}{2}$ cm, pedicels 4–17 mm. *Flowers* pale yellowish. Sepals and petals (3–)5, free, resp. 2 $\frac{1}{2}$ –3 and 1 $\frac{1}{2}$ –2 $\frac{1}{2}$ mm long. Stamens (4–)6(–8) in 1 whorl, sometimes isomerous and then alternating with the petals, attached on the disc in pits; filament in ♂ 5 mm, in ♀ 2.2 mm; anther

$\frac{3}{4}$ mm (in ♀ slightly smaller and not dehiscent). Disc flat, glabrous to woolly. Ovary 2 mm broad, densely woolly, in ♂ (with the styles) usually

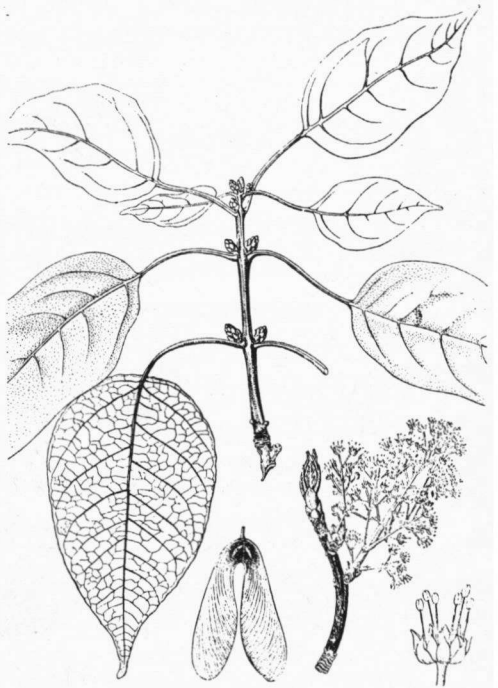


Fig. 1. *Acer niveum* BL. $\times \frac{1}{3}$, flower enlarged.

strongly reduced. Styles 2, 1 $\frac{1}{2}$ mm long. Wings of fruit 4–7 by 1–2 $\frac{1}{2}$ cm, asymmetric and obovate, inside narrowed or straight, hairy; mericarp proper 8–13 mm long, ovate.

(1) In Malaysia only one genus.

Distr. Cf. fig. 2; in the Malay Peninsula recently collected in the hills near Cameron Highlands (CF. 27181, 27344, 36281, 37745, 45489), in W. Borneo once near Simpang at 27 m (bb 13518) and once in Sarawak (HAVILAND 2092), in the other islands many localities.

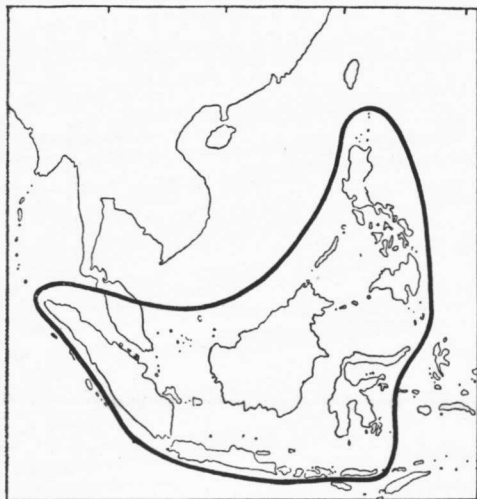


Fig. 2. Distribution of *Acer niveum* BL.; in Borneo and the Malay Peninsula it is very rare.

Ecol. In primary, rarely in secondary or devastated, forests, often common but scattered, 900–2550 m, in Flores descending to 750 m, in Sumatra to 630 m, in Celebes to 450 m, and at only 27 m near Simpang, Borneo. Fls in April–Aug., fr. July–Nov. In *Casuarina* forest saplings have been found. When flowering the leafless crown swarms with *Hymenoptera* collecting honey. Trees are easily located in the forest by the fallen leaves which are glaucous and fine-reticulate-veined underneath.

Vern. Some dozens of native names have been recorded, none of these fixed (HEYNE, *l.c.*).

Uses. Timber unimportant, no distinct heartwood is present; used for building purposes, fit for boxes.

Notes. PAX inserted *A. niveum* in his *sect. Integrifolia* in which the inflor. is terminal on short leafy twigs. I could examine this character in *A. oblongum* WALL. (WALL. 1222 A), *A. laevigatum* WALL. (THOMSON *s.n.*) and '*A. niveum*' (HELPER *s.n.*) from India. *A. niveum* BL. with its axillary leafless inflorescences is, however, possibly related to PAX's *sect. Lithocarpa* and does not belong in *sect. Integrifolia*.

Excluded

Acer javanicum BURM. f. Fl. Ind. (1768) 221 = *Actinophora fragrans* R. BR. *sec. BACKER in Herb. Bog.*; according to BURRET it is *Colona javanica*, both *Tiliaceae*.