

MALPIGHIACEAE

(by Neil A. Harriman*)

Juss., Gen. Pl. 252. 1789, nom. cons. Type genus: *Malpighia* L.

Woody vines, scandent shrubs, or erect shrubs or small trees when no support is available, \pm clothed with dolabriform (pick-shaped) hairs throughout. Leaves opposite, entire, estipulate, petiolate, simple, biglandular on blade margin at summit of petiole. Flowers in axillary and terminal racemes, these sometimes congested and collected into panicles. Pedicels jointed, readily disarticulating at the joint when fruits fail to form. Flowers hypogynous, perfect, complete, slightly irregular, 5-merous. Calyx lobes imbricate, with one large brown gland decurrent onto the pedicel; petals imbricate, fimbriate or erose, the adaxial (upper) the largest. Stamens 10, one much larger and strongly exsert. Ovary tricarpetate, each locule one-ovuled; style one (the other two abortive), long-exserted, circinate, stigma punctiform. Fruit a 3-winged samara, potentially three such samaras per flower, but commonly only one developing; a smaller dorsal crest may develop in addition. (Description limited to Ceylon species.)

A family of c. 60 genera and 1200 or more species in the tropics and subtropics of both hemispheres, with relatively few species in the Old World; in Ceylon, represented only by two species of *Hiptage*.

HIPTAGE

Gaertn., Fruct. 2: 169. 1791.

Characters of the family.

KEY TO THE SPECIES

- 1 Leaves closely silvery pubescent below, the blades mostly well over 8.5 cm long and over 4 cm broad; fruit with a dorsal crest in addition to the 3 wings, the longest wing more than 3 cm long; common.....1. *H. benghalensis*
- 1 Leaves glabrous beneath, almost always less than 8 cm long, and always less than 4 cm broad; fruit 3-winged only, dorsal crest lacking, longest wing less than 3 cm long; rare.....2. *H. parvifolia*

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1. *Hiptage benghalensis* (L.) Kurz, J. Asiat. Soc. Bengal 43: 136. 1874. Based on *Banisteria benghalensis* L., Sp. Pl. ed. 1, 427. 1753. (Kurz gives "Sp. Pl. 356"—the page number is a lapsus calami, surely.); Alston in Trimen, Handb. Fl. Ceylon 6: 34. 1931.

Hiptage madablota Gaertn., Fruct. 2: 169. 1791; Trimen, Handb. Fl. Ceylon 1: 193. 1893.

Gaertnera racemosa (Cav.) Roxb., Pl. Corom. 1: 19 & t. 18. 1795, non *Gaertnera* Lam., nom. cons., Rubiaceae; based on *Molina racemosa* Cav., Diss. 9: 435 & t. 362. 1791.

Hiptage obtusifolia (Roxb.) DC., Prod. 1: 583. 1824; based on *Gaertnera obtusifolia* Roxb., Hort. Beng. 32. 1814.

Vine, scandent shrub, or shrub or small tree when support is lacking. Fully developed leaves on thick petioles c. 1 cm long, blades lanceolate to ovate to almost rotund, rounded to cuneate at base, acute to acuminate at tip, 9–15 cm long, 4–8(–9) cm broad, reticulate-veiny both above and below, with fine, appressed dolabriform hairs across the entire lower surface. Flowers in axillary and terminal racemes, these sometimes collected into panicles. Pedicels jointed near the middle or above, bibracteolate at the joint. Sepals c. 5 mm long, oblong, densely strigose with dolabriform hairs, tawny, the single linear sepalar gland decurrent onto the pedicel. Petals strigose-hairy without, glabrous within, fimbriate, rotund, clawed, c. 1 cm long. Stamens exsert, filaments somewhat persistent, the 9 short ones c. 7 mm long, the longest one c. 12 mm long. Ovary trilocular, hairy like the sepals, style c. 13 mm long, circinate at tip. Samaras potentially three per flower, but usually only one developing, each 3-winged, the wings papery, thinly hairy, the largest obovate, to 5 cm long, the 2 smaller wings c. 2.5 cm long, the dorsal crest (simulating a fourth wing) 3.5–11 mm high or rarely undeveloped, one or more of the wings sometimes lobed, the entire range of variation in fruits sometimes occurring on a single individual.

Distr. Very widespread, from Ceylon, throughout India, to Taiwan, the Philippines, and Sumatra.

Ecol. Low country, moist and dry region. Flowers in March.

Vern. Puwak-gediya-wel.

Note. *Hiptage obtusifolia*, listed in Abeywickrama, B.A. 1959. A provisional check list of the flowering plants of Ceylon. Ceylon J. Sci., Biol. Sci. 2(2): 119–240, is here reduced to the synonymy of *H. benghalensis*, as was earlier done in Jacobs, M. 1955. Malpighiaceae in Flora Malesiana, series 1. 5(2): 125–145, where two photographs depict the species very well. In the work by Niedenzu (Malpighiaceae in Pflanzenreich 141 (not 91): 79. 1928) there are no reliable characters by which *H. obtusifolia* can be separated.

Specimens Examined. ANURADHAPURA DISTRICT: Ritigala Strict Natural Reserve, *Jayasuriya 1308* (US). KURUNEGALA DISTRICT: Gonagama,

Cramer 3586 (US). MATALE DISTRICT: Niyandagala, *Cramer* 5132 (US); Dambulla, *Cramer* 4854 (US). KANDY DISTRICT: Hunasgiriya, *Tirvengadum et al.* 77 (US); Kandy-Mahiyangane Road, *Sohmer et al.* 8243, 8245, 8252 (OSH, US) and *Sohmer et al.* 8325 (US); Corbet's Gap, *Cramer et al.* 3935 (US); between Hasalaka and Madugoda, *Huber* 461 (US); along Lady Blake Road, along the Mahaweli ganga, *Wirawan* 1226 (OSH, US); Mahaweli ganga, *Kostermans* 26867—two sheets—(US); Madugoda, *Balakrishnan* 374 (US); Guru Oya, *Balakrishnan & Jayasuriya* 1217 (US); Kandy-Mahiyangane Road, *Tirvengadum & Waas* 437 (US); Medamahanuwara, *Waas & Tirvengadum* 785 (US). NUWARA ELIYA DISTRICT: near Ramboda Pass above Kandy, *Stone* 11303 (US). BADULLA DISTRICT: by Rawanaella Falls, *Waas* 79 (OSH, US); Boralande-Tangamalai Road, *Cramer* 4344 (US). MONERAGALA DISTRICT: between Wellawaya and Monaragala, *Balakrishnan* 579 (US).

2. *Hiptage parvifolia* Wight & Arn., Prod. 107. 1834; Trimen, Handb. Fl. Ceylon 1: 193. 1893.

Vine, climbing high into canopy trees, generally smaller in all its parts than *H. benghalensis*. Fully developed leaves on slender petioles to 1 cm long, blades narrowly to broadly lanceolate, rounded to cuneate at base, acute to shortly acuminate at tip, 4–7.5(–8) cm long, 2–3.5 cm wide, reticulate-veiny on both surfaces, quite glabrous both above and below. Flowers in panicles of racemes, on hairy pedicels jointed above the middle, the joint not marked by a pair of opposite bracteoles, but these scattered and variously developed on the proximal portion of the pedicel. Sepals c. 3 mm long, oblong, densely strigose with tawny dolabriform hairs, the single sepalar gland decurrent onto the pedicel. Petals strigose-hairy without, glabrous within, erose, rotund, clawed, c. 8 mm long. Stamens exsert, filaments \pm persistent, the 9 short ones c. 6 mm long, the longest one c. 9 mm long. Ovary trilocular, hairy like the sepals, style c. 11 mm long, circinate at tip. Samaras potentially three per flower (and 2 or 3 commonly developing in some flowers), each 3-winged, the wings papery, thinly hairy, the largest wing linear to elliptic, to 2.1 cm long, the 2 smaller wings c. 1 cm long, the dorsal crest never formed, the wings often shallowly lobed.

Distr. Ceylon and India.

Ecol. Dry region. Flowers in March.

Specimens Examined. KANDY DISTRICT: west of Madugoda, *Jayasuriya* 2127 (US). AMPARAI DISTRICT: between Panama and Okanda, *Jayasuriya* 2004 (OSH, US). MONERAGALA OR HAMBANTOTA DISTRICT: Ruhuna National Park, *Cooray* 70032713R (US) and *Cooray* 68053102R (US).