TAXONOMIC STUDIES OF THE GENUS CHASSALIA COMM. EX POIR.
IN INDIA AND ADJOINING REGIONS


Type species: Chasalia capitata DC.

Shrubs, undershrubs, or small trees, branching above. Leaves simple, usually opposite, sometimes ternate or whorled, entire, mostly acuminate, membranous, usually glabrous, subsessile or distinctly petiolate; stipules interpetiolar, ovate to triangular, mostly bifid above to two filiform rips, often connate at the base with glabrous axillary hairs, mostly persistent. Inflorescence terminal, erect, in trichotomously branched panicle, glabrous or pubescent. Flowers small, bisexual, 4–5 merous, heterostylos; bracts and bracteoles small. Calyx persistent, small, tube fused with the wall of the ovary, ovoid or oblong, limb very short, lobes 5, triangular or linear, very short. Corolla sometimes dimorphic, white or pinkish, tube cylindrical, curved, hairy or glabrous inside, 5 lobed; lobes sometimes winged. Stamens 5, epipetalous, included or exerted; anthers linear, 2 lobed, dorsifixed. Pistil bicarpellary, syncarpous, heterostylos, erect from the base; ovary inferior, 2 locular, ovule one in each locule; stigma bifid; disc elevated, cylindrical and distinct. Fruits ovoid, globose or oblong, fleshy, or 2 ventrally grooved pyrenes. Seeds dark brown, smooth, orbicular, ventrally concave.

40-50 species, mostly in tropical Africa and Madagascar; few in Sri Lanka, China, Burma and Malaya Peninsula extending to Philippines. 2 species: C. curviflora is represented by 4 varieties in India, while C. lusitaiensis is known from the type material only.

KEY TO THE TAXA

1a. Leaves not falcate, broadly elliptic to obovate-lanceolate, oblong or narrowly linear-oblong... C. curviflora
1b. Leaves falcate, narrowly elliptic to lanceolate...

C. lusitaiensis

1a. Fruits globose or subglobose:
2a. Midrib and nerves pubescent beneath...
2b. Midrib and nerves glabrous beneath...

C. curviflora var. curviflora

C. curviflora var. ophioclyoides

C. curviflora var. ellipsoide

C. curviflora var. lusitaiensis


Shrubs 2-3 metre high, branching. Leaves 12-34 x 4-8 cm elliptic to obovate-lanceolate, oblong or linear-lanceolate or linear-oblong, membranous, glabrous or pubescent, obtuse at the base, entire, acute cupulate or caudate-acuminate at the apex, lateral nerves 6-10 pairs prominent on the lower surface; petiole slender, 1 ° 3.5 cm long; stipules 2-3 x 1-2 mm ovate, bifid, often opposite ones connate at the base. Inflorescence 2-7 cm long, glabrous or pubescent; peduncles 1-2.5 cm long. Flowers sessile, white with pink-
ish tips, 1-2 cm long, bracteate; bracts short, ovate to lanceolate, pubescent or glabrous. Calyx glabrous, limb about 1 mm long; lobes 5, triangular. Corolla tube 1-2 cm long, curved, dimorphic, on one form with exserted anthers and included stigma and the other form with exserted stigma and included anthers; lobes 5, ovate-triangular, about 2 x 1 mm, acute; throat glabrous. Stamens shorter, filaments 2.0-3.5 mm or longer ones 3.5 mm, anthers 3 x 1 mm. Disc annular, 1-2 mm. Pistil style, shorter ones 3 mm, longer ones 10 mm, stigma bifid; ovary 5 x 1 mm. Fruits about 6-10 x 5-8 mm, more or less didymous, smooth. Seeds about 5 mm.


Leaves 6-18 x 5-8 cm, obovate-lanceolate or linear-oblong, midrib and nerves pubescent beneath; petiole slender, 1-3 cm long; stipules 3 x 1 mm, ovate, bifid. Inflorescence 3-5 cm long glabrous or minutely pubescent; peduncles 1-2 cm long.

Flowering: May-August. Fruiting: June-November.

Distribution: Malaya Peninsula, Thailand and Sumatra.


Inflorescence 4-6 cm long, lax to dense flowered. Calyx short, 5 lobed to the base. Stamens shorter filaments 2-3 mm, longer ones 3-5 mm; anthers included in shorter stamens and excluded in longer ones. Fruits globose, 6-9 mm across, more or less didymous, smooth.

Flowering: March-June. Fruiting: July-September.

Distribution: India: Arunachal Pradesh, Nagaland, Mizo Hills, Tripura, Assam, Andaman & Nicobar Islands, Tamil Nadu, Karnataka; Bangladesh; Sri Lanka; Burma, Borneo and Philippines.

Specimens examined: Arunachal Pradesh: Aka Hills, Bor 19128 (ASSAM); Pashighat, Deka 17702 (ASSAM); Kameng, Panigrahi 15661 (ASSAM); Sonogodam to Deyre, Lohit, Rao 19416 (ASSAM); Lohitpur, Rao 47961 (CAL); Subansiri, Subbarao 24626 (ASSAM). Nagaland: Mongsemdi, Watt 11812 (CAL); Kohima, Clarke 4136A (CAL); Kohima, Prain s. n. (CAL); Deligan, Prain 180 (CAL); Nag Hills, Bor 20772 (ASSAM). Mizoram: Changsia, Praser s. n. (CAL); Sialsuk. Deb 20768 (ASSAM) Tripura: Tlangsang, Deb 27169 (ASSAM). Assam: Nambar forest, Watt 11361 (CAL); Assam, G. Man 427 (ASSAM); Cachar, Praser 30, 39, 50 (CAL): Goalpara, Kanijil 5759 (ASSAM): Darrang, Kanijil 3745 (CAL); Kamrup, Panigrahi 9566 (ASSAM);
Mikir Hills, Deb 35181 (ASSAM); Nowrong, Balakrishnan 39399 (ASSAM); N. Lakhipur, Verma 46552, 46665 (ASSAM).

Meghalaya: K & J. Hills, Clarke 17700 (CAL); Khasia Hills, Burkill & Banerjee 184 (CAL); K. & J. Hills, Deka 18836 (ASSAM); Tura, Garo Hills, Deb 28084 (ASSAM); Nongpoh, Joseph 42334 (ASSAM).

Andhra Pradesh: Visakhapatnam, Subbarao 30038 (MH). KARNATAKA: Juddkal, S. Kanara, Barber 12854 (MH); N. Kanara, Talbot 337 (CAL); Balchally forest, Agumbe, Srinivasan s.n. (BSIS). Naravi, S. Kanara, Raju & Naganath 18150 (MH); Sringeri forest, Chickmagalur, Bhatt s.n. (LWG). TAMIL NADU: Nilgiris, Gamble 20649 (CAL); Coimbatore, Fischer 1945 (CAL); Nilgiris, Thomson s.n. (MH); Kannikatti, Tirunelveli, Barber 481 (MH); Nadugani, Tirunelveli, Barber 11007; Kodumady forest, Tirunelveli, Schastine 8392 (MH); Kannikatty, Tirunelveli, Jacob s.n. (MH); Therkumalai-courtallam, Tirunelveli, Subramanyam 5020 (MH); Ayilandapillai Estate, Tirunelveli, Shetty 27957 (MH); Kateru road, Nilgiri, Sharma 36034 (MH); Pambhar forest, Madurai, Deb 30902 (MH); Sengaltheri, Tirunelveli, Vajravelu 29131 (MH); Silvercascadi-Kodaikanal, Madurai, Ramamurthy 23400 (MH); Nadugani, Nilgiris, Ellis 38523 (MH); Inchikazhai, Tirunelveli, Henry 16264 (MH); Panagudi, Kanyakumari, Karthikeyan 40109 (MH). KERALA: S. Malabar, Fischer 1601 (CAL); Travancore, Calder & Ramaswamy 114, 225 (CAL); Dhoni R. F., Palghat, Joseph 17182 (MH); Bhagavathikulam, Ernaculam, Shetty 33455 (MH); Anathod, Kottayam, Deb 30413 (MH); Trichur, Ramamurthy 27044 (MH).

Andaman and Nicobar Islands: Anikhet Jungle Hills, S. Andamans, King s.n. (CAL); Manpur, Wemberloyng, Heimig 99H (CAL); Andaman, Prain 150 (CAL); S. Andaman, Kurz s.n. (CAL); Saitan Khari, S. Andaman, Balakrishnan 5676 (PBL). SIKKIM: Sikkim, Hooker s.n. (CAL); Sikkim, Bor 1890 (ASSAM); Teesta Valley, Smith & Cave 825 (CAL); Sikkim, Rao 28635 (ASSAM).

Bhutan: Nunnai beat house to Bhutan border, Nath 13341 (ASSAM); Galeyphug, G. Sengupta 1400 (CAL). BANGLADESH: Dacca, Clarke 17956 (CAL). SRI LANKA: Sri Lanka, Thwaites 1714 (CAL); Sandanapola forest, Chatterjee 665 (CAL). BURMA: Perak, Sorentechini 557 (CAL); Kalay Hill, upper Burma, Prazet 105 (CAL); Kachin Hill, upper Burma, Mokim s.n. (CAL); Dunaon, Tenasserim, Meebold 14655 (CAL); upper Chindwin, Mackenzie 110 (CAL); Guneug Batu patch, Wray 265, 432, 162 (CAL).

BORNEO: Sandakan, Merrill 20131 (CAL). PHILIPPINES: Palo, Elmer 7057 (CAL); Panay, Edano 31340 (CAL).

Chassalia curviflora (Wall.) Thw. var. ellipsoides Hook. f. in Fl. Brit. Ind. 3: 111. 1890

Type: Jarain, 3000 ft. in Jaintia 21.11.1872, C. B. Clarke 17908A! K (Holotype) & 17908 E! a duplicate of the type which does not appear to have been examined by the author of the variety, Hook. f. is extant in CAL.

Leaves 10-18 × 3-6 cm broadly elliptic-lanceolate, glabrous, membranous, acuminate at the apex, sub-acute at the base; lateral nerves 7-12 pairs, prominent on the lower surface, petiole slender, 1-2 cm long; stipules deciduous. Fruits elliptic, 10 × 7 mm broad, black, smooth.

Flowering: Not known. Fruiting: July-November.

Distribution: India: Jarain in Jaintia Hills, Meghalaya.

Note: Taxonomic status of Psychotria tetrandra Bl. Bijdr. Fl. Ned. Ind. 96. 1826, P. lurida Bl. 1. c. 959, Chassalia sanguinea Miq. Fl. Ind. Bat. Suppl. 223. 1860 and Zwaardekronia lurida Korth. Ned. Kruidk. Arch. 2: 252. 1851, could not be properly determined as the types were not available for scrutiny. On the basis of distribution
these appear to represent the typical variety, but the descriptions of the leaves as glabrous, tend to represent the variety ophioxyloides, but it is not likely to be so.

Specimens examined: The type and its duplicate.

Note: This variety is described only on the basis of the type collected by C. B. Clarke as distinguished by Hook. f. (l.c.) for the characteristic form of the fruit. It has not been collected since then, though Jarain has been repeatedly explored by many workers during the last one hundred years.

Chassalia curviflora (Wall.) Thw. var. longifolia (Dalz.) Hok. in Hook. Journ. Bot. 2: 133. 1850. (Type: Malacca, Maingay 3052 (K & CAL.)

Leaves much longer, glabrous, 11 - 34 x 1 - 4 cm linear-lanceolate, obtuse at the base. acute at the apex, nerves more numerous, prominent and spreading, petiole slender, 1 - 2 cm long; stipules ovate, 2 - 3 mm. Inflorescence 2 - 5 cm long, glabrous; peduncle fleshy, pink. Fruits globose, smooth, didymous.

Flowering: January-June. Fruiting: April-September.

Distribution: India and Malaya Peninsula.


Trees small, branches terete, fistular. Leaves opposite, 12 - 30 x 3 - 7 cm; elliptic-lanceolate, falcate, membranous, glabrous; petiole slender, 1 - 2.5 cm long; stipules conate at the base, upper part caducous. Inflorescence pedunculate, densely flowered, glabrous; bracts cuspidate, ovate, 0.8 cm long. Flowers small, narrow, clavate, costate. Calyx lobes 5, triangular, acute. Corolla much longer than the calyx, curved. Stamens inserted in the middle of the corolla tube; anthers linear. Ovary conical, truncate, 2 lobed; style filiform, stigma bifid. Fruits subglobose, smooth, didymous.

Flowering: May-September. Fruiting: August-December.

Distribution: India: Mizoram.

Specimens examined: Only the type cited above.

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