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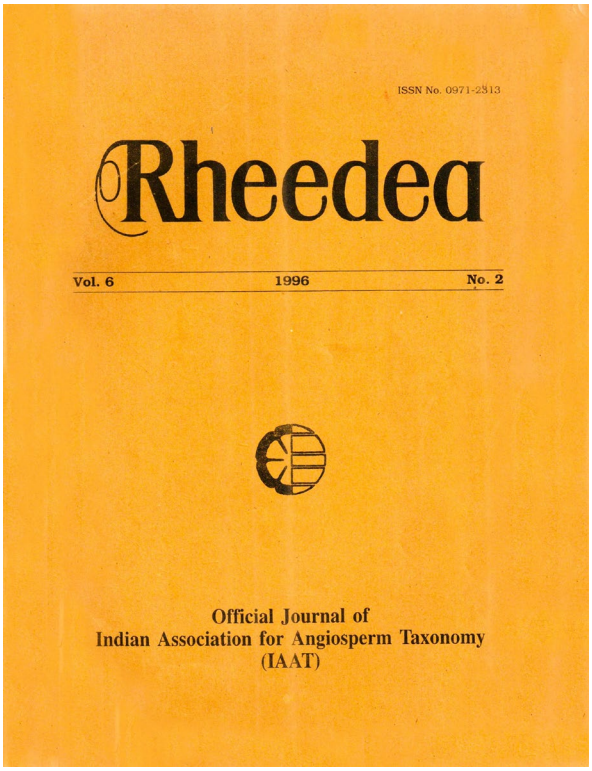

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Lasia spinosa (L.) Thwaites (Araceae) - A new report for South-West Peninsular India

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Abstract

Lasia spinosa (L.) Thwaites (Araceae) has been collected recently from Kozhikode district of Kerala state, and it forms a new report of the species from South-West Peninsular India. Detailed description, illustrations and updated nomenclature of the species are provided.

INTRODUCTION

The genus *Lasia* Lour. belonging to the subfamily Lasioideae of Araceae is Indomalesian in distribution extending from India, Sri Lanka to New Guinea, and is represented by two species viz., *L. spinosa* (L.) Thwaites and L. *concinna* Alderw. The species usually inhabit open swampy areas or shady marshes in forest openings and margins. *Lasia spinosa* is the only species occurring in India with its distribution in the states of Andhra Pradesh, Maharashtra, Orissa, West Bengal, Sikkim and Assam. The occurrence of the species in Maharashtra state was reported by Malhotra and Rao in 1981. The recent collection of the species from Kozhikode district in Kerala state is a new record of its extended distribution in South-West Peninsular India. A detailed description and illustrations of the species are provided for a thorough understanding.

Lasia spinosa (L.) Thwaites, Enum.Pl. Zeyl. 336. 1864; Engler in DC., Mon.Phan. 2: 273. 1879, Bot. Jahrb.25: 14. 1898, Pflanzenr. IV.23C (48): 24.1911; Haines, Bot. Bihar & Orissa 589. 1924; Fischer in Gamble, Fl. Pres. Madras 1589. 1931, Repr. ed.2, 3: 1108. 1967; Alston in Trimen, Handb. Fl. Ceylon 6: 297. 1931; Mooney, Suppl. Bot. Bihar & Orissa 142. 1950; Backer & Bakh.f., Fl.Java 3: 111. 1969; Bennet, Pl. Howarh Dist. 92. 1979; Nicolson in Dassan. & Fosberg, Rev. Handb. Fl. Ceylon 6: 35. 1987; Hay, Blumea 33: 459. 1988. (Fig.1).

[*Arum zeylanicum spinosum, sagittae foliis* Hermann, Parad. Bat. 75.1698.]

[*Dracontium zeylanicum spinosum, polypodii foliis radice repente* Hermann, Parad. Bat. 94. 1698.]

[*Arum zeylanicum, maximum, spinosum radice longa, repente* Hermann, Mus. Zeyl. 56, 64. 1717; Burman, Thes. Zeyl. 34. 1737.]

[*Dracontium zeylanicum spinosum, foliis profunde incisiis, filicis in nodum radice longe repente* Hermann, Mus. Zeyl. 64. 1717.]

[*Dracontium foliis sagittatis, pedunculis petiolisque aculeatis* Linnaeus, Fl. Zeyl. 155. 1747.]

Dracontium spinosum L., Sp. Pl. 967. 1753, Ed. 2, 1372. 1762.

Lasia aculeata Lour., Fl. Cochinch. 1: 81. 1790; Willdenow ed., 1: 103. 1793; Hasskarl, Cat. Pl. Hort. Bot. Bogor.59. 1844; Miquel, Fl. Ind. Bat. 3: 177. 1855; Hook. f. in Trimen, Handb. Fl. Ceylon 4: 363. 1898; Ridley, Mat. Fl. Malay Penins. 3: 46. 1907.

Pothos heterophylla Roxb., Fl. Ind. 1: 457. 1820, ed.2,1: 437. 1832.

Lasia loureirii Schott in Schott & Endlicher, Melet. Bot. 21. 1832, *nom.illeg.*, Bonplandia 5: 125. 1857, Prodr. Syst. Aroid. 400. 1860; Voigt, Hort. Suburb. Calcutt. 689. 1845.

Lasia heterophylla (Roxb.) Schott in Schott & Endl., Melet. Bot. 21. 1832, Bonplandia 5: 125. 1857, Gen. Aroid. 82. 1858, Prodr. Syst. Aroid. 402. 1860; Kunth, Enum. Pl. 3: 67. 1841; Hasskarl, Cat. Pl. Hort. Bot. Bogor. 59. 1844 (*Lasius*); Voigt, Hort. Suburb. Calcutt. 689. 1845; Wight, Icon. Pl. Ind. Or. 3: 5, t. 77. 1844; Miquel, Fl. Ind. Bat. 3: 176. 1855; Hooker *f.*, Fl. Brit. India 6: 550. 1893; Haines, For. Fl. Chota Nagpur 550. 1910; Mitra, Fl. Pl. India 1: 74. 1958; Prain, Bengal Pl. (repr. ed.) 2: 840. 1963; Malhotra & Rao, J. Bombay Nat. Hist. Soc. 78 (1): 417.1981.

Lasia roxburghii Griff., Not. Pl. Asiat. 3: 155. 1851; Schott, Bonplandia 5: 125. 1857, Prodr. Syst. Aroid. 401. 1860.

Lasia hermannii Schott, Bonplandia 5: 125. 1857, *nom. illeg.*, Prodr. Syst. Aroid. 400. 1860.

Lasia zollingerii Schott, Bonplandia 5: 125. 1857, Prodr. Syst. Ariod. 401.1860.

Lasia desciscens Schott, Ann. Mus. Lugd. Bat. 1: 127. 1863.

Lasia spinosa var. *hermannii* Engler in DC., Mon. Phan. 2: 274. 1879.

Lasia crassifolia Engler, Arac. Exsicc. Illustr. no. 194. 1883, Bot. Jahrb. 25: 15. 1898, Pflanzenr. IV. 23C (48): 26. 1911.

Lasia crassifolia f. *angustisecta* Engler, Arac. Exsicc. Illustr. no. 194. 1883, Bot. Jahrb. 25 : 15. 1898, Pflanzenr. IV. 23C (48): 26.1911.

Lasia crassifolia f. *latisecta* Engler, Bot. Jahrb. 25: 15. 1898, Pflanzenr. IV.23C (48): 26.1911.

Lasia spinosa (L.) Thwaites (Araceae) - A new report

Lasia spinosa f. *diversifolia* Alderw., Bull. Jard. Bot. Buitenzorg, Ser. 3, 1: 379. 1920.

Lasia spinosa f. *simplex* Alderw., Bull. Jard. Bot. Buitenzorg, Ser. 3, 1: 379.1920, `*simpex*'.

Stout, suberect rhizomatous, spinescent perennial herbs. Rhizome 3-6 cm diam., internodes 4-8 cm long, greenish, prickles 2-10 mm long, scattered on the internodes, more or less in a row on the nodes; cataphylls 6-12 cm long, 3-6 cm wide at base, elongate-conical, margin hyaline, abaxially two ridged, sparsely scattered prickles on the abaxial side. Petiole ca. 40-137 cm long, 0.7-1.2 cm diam., pulvinate at tip, green, with scattered upturned prickles, basally sheathing to 7-12 cm long, sheath 4-6 cm broad; leaf lamina in young plants always sagittate or sagittate-hastate, 12-30 cm long, 6-16 cm wide, in mature plants pinnatifid, ca. 24-41 cm long and 30-48 cm wide with 5-11 primary lobes; basal lobe 2-3-fid, each lobe 9-19 cm long and 1.5-3.5 cm broad, entire, acuminate; veins prominent on abaxial side bearing scattered prickles.

Inflorescence with long peduncle; peduncle terete, 40-110 cm long, 0.7-1.2 cm diam., prickles with slightly upcurved tips all over; spathe erect, thick, coriaceous, to 28-42 cm long, narrowly lanceolate, convolute basal tubular portion slightly bulged, about 5-6 cm long, 2-3 cm diam. enclosing the spadix, brownish green outside, greenish yellow inside, upper convolute limb portion slightly twisted, 23-36 cm long, 1-1.5 cm diam. at base, tapers to the tip, yellowish purple to brownish; first the limb slightly opens and remains open for about 2 days, the basal tubular portion opens later with the opening 3-7.5 cm long, 2-3.5 cm wide having inner margin more deflexed to a side; spadix sessile, cylindric, 3-4 cm long, 0.8-1 cm diam. flowers bisexual in close spirals; each flower with 4 tepals, each tepal 2 mm long and 2 mm wide with vaulted top, margin thin, pinkish; stamens 4, each 3 mm high, 2 mm wide, anthers ca. 1 mm high, filaments elongate and protrude out at the time of anthesis; pistil with ovary 2 mm high, 1 mm diam., unilocular, ovule single, apical, campylotropous; style thick, very short, 1 mm long; stigma subspherical, 0.5 mm diam., pinkish orange in colour. Infructescence ca. 3.5-12 cm long, 5-7 cm diam. Fruit a berry, ca 1.3-1.5 cm x 1-1.4 cm, minutely spinescent or muricate on the upper portion with a slight smooth circular depression around the stigmatic zone. Seed laterally compressed, sub-obconic, 1 cm high, 5-7 mm thick, seed coat thick, hard, with irregular ridges and projections especially at the narrow basal tip.

Flowering and fruiting: The species flowers all through the year but abundant during January to March. Maturation of fruits takes a long period of about an year.

Specimens studied: Kerala state, Kozhikode Dist., Pannikkode near Mukkom, *Sajeev CU 61501* (CALI); *ibid., Sivadasan, Bobby Thomas & Jaleel RIA 22* (CALI).

Notes: The leaves of youngs plants are sagittate or sagittate-hastate, and that of mature ones are distinctly pinnatifid. Hay (1988) pointed out the transplant experiments conducted by Hossain and Sharif (1984) who had reported that the leaf-shape varied with ecological conditions and that dissected nature of the lamina increased with increased illumination of the habitat of the plants. But Hay's (1988) observations of plants in New Britain and Malesia were contradictory to the former conclusion

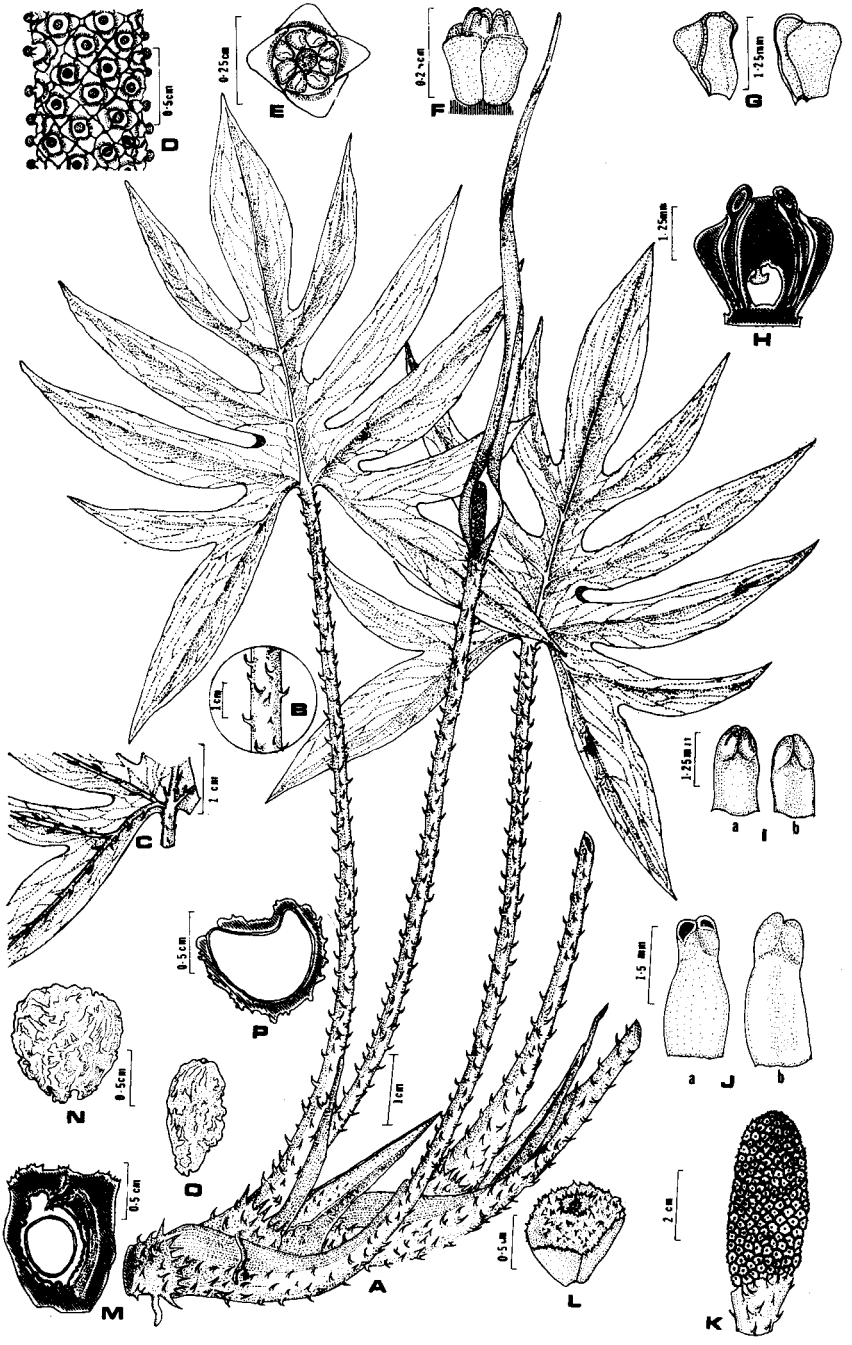

Figure 1. *Lasia spinosa* (L.) Thwaites

where entire leafed forms were growing in full sunlight and dissected leafed forms in deep shade respectively. This findings clearly indicate the existence of two distinct forms of the species, i.e., one having dissected mature leamina and the other having entire lamina. Detailed studies are essential to establish their taxonomic status.

Acknowledgements

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Explanation of Fig. 1. A. Habit; B. A portion of petiole enlarged to show the prickles; C.A portion of lamina showing prickles along the veins on the abaxial side; D. A portion of spadix enlarged; E. A single flower enlarged - view from top; F. Single flower - lateral view; G. Tepals; H. Flower - vertical section; I. Stamens: a. abaxial view, b. adaxial view; J. Dehisced stamen: a. abaxial view, b. adaxial view; K. Infructescence; L. Single fruit; M. Fruit vertical section along the secondary plane of the seed; N. Seed - view from primary plane; O. Seed - lateral view; P. Seed - vertical section along the primary plane. (Drawings -U. Sajeev).