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# **RESEARCH ARTICLE**

# Floristic Account of the Genus Lipocarpha R. Brown (Cyperaceae)

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# ABSTRACT

*Lipocarpha* R. Br. (s.str.), a small genus with over 15 species distributed through the world with high species concentration in Africa. In India it is represented with 5 species with the addition of 2 species namely *L. raynaliana* Govind. and *L. redyii* Hooper to the earlier recorded 3 species (Clarke, 1893). The genus *Lipocarpha* R. Br.(s. str.) is mainly characterised by the two hypogynous scales which are very thin hyaline lightly adhering to nuts together with the capitate inflorescence. Clarke (1893) has shown its affinity with the sec. Micranthae under *Scirpus* (*= Rikliella* J. Raynal). The hypogynous scales of *Lipocarpha* have been variously interpreted. (For detail see Bentham J. Uinn. Soc. Bot. 15:509-10 & 518.1877. Clarke in Thislten Dyer Fl. Tropical Africa 8:468-69.1902, Kern, in Steenis Fl. Malesiana 1.7(3):521). The present report is hoped to provide basic material for further research in Cyperaceae.

**Key words:** Lipocarpha, Hypogynous scales, Capitate inflorescence, Glumes membranous, Nut stramineous.

# INTRODUCTION

#### Type species - Lipocarpha argentea (Vahl ) R. Br.

Annual or perennial glabrous herbs; stem tufted, erect, smooth, leafy only at the base. Leaves: elongate, linear, sheaths of basal ones open of the cauline ones closed at the base; ligule absent. Inflorescence: terminal, capitate, with 2-8 spikelets, and are subtended by some involucral bracts looks similar to the leaves. Spikelets small, sessile, terete, very densely many-flowered. Rhachilla persistant, not winged, marked by lozenge-shaped scars. Glumes spirally imbricate, acropetally caducous, not keeled, the lower 1-2 empty. Flowers hermaphrodite, the upper ones tabescent. Perianth consisting of 2 hyaline, nerved scales placed in the median plane. Stamens 1-2, anthers small, oblong to linear, with shortly produced smooth connective. Style small, not dilated at the base, continuous with the ovary, glabrous, stigmas 2-3. Nut small, dorsiventrally compressed, trigonous or planoconvex, oblong-obovate to narrowly oblong, smooth, reticulate, often slightly curved, enclosed by the hypogynous scales; epidermal cells isodiametric.

*Lipocarpha* (s.str.) a small genus with over 15 species distributed throughout the world with high species concentration in Africa. In India it is represented with 5 species with the addition of 2 species namely *L. raynaliana* Govind. and *L. redyii* Hooper to the earlier recorded 3 species (Clarke, 1893), 4 species in present study regions, 2 have been collected and 2 is included on Authority of respective workers.

The genus *Lipocarpha* s. str. is mainly characterised by the two hypogynous scales which are very thin hyaline lightly adhering to nuts together with the capitate inflorescence. Clarke (1893) has shown its affinity with the sec. Micranthae under *Scirpus* (= *Rikliella* J. Raynal). The hypogynous scales of *Lipocarpha* have been variously interpreted. (For detail see Bentham J. Uinn. Soc. Bot. 15:509-10 & 518.1877. Clarke in Thislten Dyer Fl. Tropical Africa 8:468-69.1902, Kern, in Steenis Fl. Malesiana 1.7(3):521).

Ghoetghebeur & Van den Borre in Wagen. Agriculture Univ. papers 89-1.1-87.1989. By widening the generic circumscription merged 2 genera namely *Hemicarpha* Nees and *Rikliella* J. Raynal and take *Lipocarpha* in broad sense treating about 35 species in it. In the present text I have followed Clarke (1893, 1902), Kern (1974) and W. Khan (2000) *Lipocarpha* (s. str.) distinct generically.

# Floristic Account:

*Lipocarpha chinensis* (Obs.) *Kern* in Blumea suppl. 4:167. 1958 et in Steenis Fl. Malesiana 1.7(3):720.1974; Goetghebeur & V. den Borre Wagen. Agri. Univ. papers 89-1:27.1989. Brahmam & Saxena in Fl. Orissa : 4.2195.1996; L'narshimhn in Sharma et al Fl. Maharashtra (Monocot):332.1996. Scirpus chinensis Obs. Dagb. Ostind. Resa:220.1757. Hypolytrum argenteum Vahl En. Pl. 2:283.1806. nom. illegit. Lipocarpa argentea R. Br. Ex. Nees Linnea 9:287.1854. Clarke in Hook. f. Fl. Brit. India 6:667.1893; Fischer in Gamble Fl. Pres. Madras (1931) 3:1670 (repr.ed.) 1994. L. triceps Camus in Fl. Gen. I-C. 7:144.1912 non Nees. Simpson & Koyama in Fl. Thailand 6(4):406.1998.

Annual; stems tufted, erect, rather stiff, obtusely trigonous, striate, sulcate, smooth, 20-50 cm x 1-2 mm. Leaves: usually much shorter than the stem, rather rigid, flat or involute, gradually attenuate, obtuse, practically smooth 2-4 mm wide. Inflorescence: 1-1.5 cm across. Involucral bracts 2-3 (5), much overtopping the inflorescence, finally horizontally spreading to reflexed, dilated at the base, the longest up to 10-15 cm. Spikelets 3 – 6 (10) ovoid to oblong - ovoid, terete, obtuse, whitish, 5-8 x 4-5 mm. Glumes membranous, spathulate to oblong-obovate, subtruncate at the apex with obtuse triangular tip, concave, with strong midnerve and faintly 1-2 nerved sides, often purplish lineolate, 1.5-2.5 x 1-1.2 mm. Hypogynous scales oblong, 5-7 nerved, much longer than the nut, 1.3-2 mm long. Stamens 1(2) anthers linear. Style 3-fid. Nut oblong-obovate to oblong, straight or slightly curved, minutely apiculate, stramineous to fuscous, 1-1.4 x 0.3-0.4. (Fig. 1)

Common in marshes, on margins of water courses, edges of rice field.



Flowers and Fruits: October to December.

**Specimens examined:** A.P. Krishna Dist. *Shaikh R. I.* 992. Orissa, Gajanan (Chatrapur) Dist. on road side, *Shaikh R. I.* 1098. T.N. Tiruchchirappalli Dist. Bharatidasan University, *Shaikh R. I.* 780.

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