

SESBANIA ROXBURGHII MERR. - A LESS KNOWN FODDER PLANT

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ABSTRACT

Sesbania roxburghii Merr. (Syn. *S. paludosa* Prain) is a native rattle pod in rice-fields of Bengal. It is a fast growing species and potential source of fodder and green manure. Taxonomy and distribution of the plant are furnished in this note.

INTRODUCTION

Some species of *Sesbania* are cultivated in India for their food, fodder and green manure value. *S. grandiflora* (L.) Pers. (*Agati*) is a tall tree with large edible flowers and pods. *S. sesban* (L.) Merr. (*Jainti*, *Jeelugu*) and *S. cannabina* (Retz.) Pers. (*Dhunchi*) are cultivated as source of green manure or fodder. *S. aculeata* (Willd.) Poir. and *S. procumbens* (Retz.) Wight & Arn. are weeds in waste lands often grazed by cattle. The tall 'Kathsola' *S. roxburghii* Merr. (*S. paludosa* Prain) of Bengal is a marsh plant with much potential as fodder species. Sir David Prain, the author of *Bengal Plants* (1903) and also formerly, Director of Botanic Garden at Calcutta and Kew, described this plant and introduced it into cultivation in a pond very near to Roxburgh House.

While searching for Sola-pith plant (*Aeschynomene aspera* L.) in its natural habitat the authors came across a population of *Sesbania roxburghii* Merr., growing in rice-fields along railway tracts at Mourigram. The plants which are up to 1.5-2 m tall have been cut and used as fodder for cattle and also the whole plants removed and grazed by goats with much relish. A critical examination of flowering specimens and herbarium studies reveal that 'Kathsola' is a Roxburghian taxon described under *Aeschynomene* L. Prain (1903) and King (1897) treated it under *Sesbania* Adans. However, it was E.D. Merrill, the author of *Bibliography of Eastern Asiatic Botany* who

renamed it as *S. roxburghii* Merr., in honour of William Roxburgh, the father of Indian Botany.

TAXONOMY AND DESCRIPTION

***Sesbania roxburghii* Merr.** in Philip. J. Sci. 4C : 269, 1909; Bennett, S. S. R., Flora of Howrah Dist., 181, 1979. *S. aculeata* (Retz.) Poir. var. *paludosa* (Roxb.) Baker in Hook. f., Fl. Brit. Ind. 2 : 115, 1876 (excl. *A. uliginosa* Roxb.). *S. paludosa* (Roxb.) King J. Asiat. Soc. Bengal 66 : 82, 1897 (*non* Jacq. 1825); Prain, Beng. Pl. 404, 1903. *Aeschynomene paludosa* Roxb., Fl. Ind. 3 : 333, 1824.

Shrubs 1.5-2 m tall, annual; stems erect, 1.5-2 m high, branches sub-ligneous, parts under water swelled and spongy, exposed parts covered with green bark. Leaves sessile, pinnate, linear, 15-20 cm long; leaflets usually opposite, 15-30 pairs, subsessile, 10-15 × 5-6 mm, narrowly oblong, rounded at both ends, with a bristle-like point at apex, glabrous above and with a few hairs beneath; petioles swollen at the base and channelled; stipules lanceolate, deciduous; stipels subulate, minute, persistent. Flowers axillary, in lax, 6-10-flowered racemes; peduncles solitary, longer than the leaves. Flowers pedicellate, drooping, 10-20 mm long; bract and bracteoles boat-shaped, deciduous. Sepals 5, connate, campanulate, slightly bi-lipped; lobes 5, ca 3 mm long, subequal. Petals 5, yellow standard marked with purple spots on the outside. Stamens (9+1)



Sesbania roxburghii Merr.

filaments alternately longer. Ovary cylindric, glabrous; stigma emarginate. Pods pendulous, 20-25 × 0.5 cm, linear, many-seeded. Seeds sub-cylindric to quadrate, 4 × 3 mm, dark brown.

Fl. : July Aug.; *Fr.* : Sept. Jan.

Distribution : It appears usually in shallow waters and flooded rice-fields during the rains. Bengal and West Coast of India.

Myanmar (Burma), S. E. Asia and S. China.

Uses : The foliage is reported to be of medicinal value. Leaves are eaten in Thailand. Soft pith-like wood is often used in toy-making and making mats by rural folk (Burkill, 1935). The whole plant is harvested like jute and used as green fodder for cattle. The foliage and shoots are much browsed by goats.

As the species is fast growing and flood resistant it has potential for cultivation in wetlands

of India. It can be propagated through cuttings and seeds.

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