poses a problem as to the affinity of the members of this family. Though Lythraceae is a small taxon consisting of about 23 genera and 450 species occurring both in tropical and temperate climates it shows a wide range of variation of both morphological and ecological characters. It is, therefore, considered pertinent to investigate the chemical relationship among the species distributed in India by applying established chemical test-plan which ellucidates a comparative phytochemical relationship.

The following six species namely *Ammania baccifera* Linn., *Ammania salicifolia* Monti, *Lawsonia inermis* Linn., *Lagerstroemia indica* Linn., *Lagerstroemia flos-reginae* Retz. and *Woodfordia floribunda* Salisb. were selected to find out whether a pattern of distribution of chemical constituents would give a primary indication of its chemical relationship. The material for the present study was collected from plants growing around Nagpur.

Both vegetative and reproductive organs namely root, stem, leaf, flower and fruits were studied as many a times these parts exhibit a variety of chemical characters. The tests have been carried out according to Gibbs (1974) and Trease and Evans (1972) (Table I).

It may be noted that though different species show a similar pattern of reactions, *Lagerstroemia indica* shows presence of alkaloids while these are absent in *Lagerstroemia flos-reginae*. This difference being at species level is quite interesting. The presence of Lawsone is doubtful in *Lagerstroemia* species. This shows that the genus *Lagerstroemia* is not uniform as regards its chemotaxonomy, and justifies the separation of these two species into two different sections *Valage* and section *Adambea* (Hooker). In conclusion it may be observed that Lythraceae though appearing to be a homogenous taxon shows considerable chemical difference at the generic and specific levels which may lead to better delineation amongst its members.

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CRITICAL NOTES ON THE GENUS *CROTALARIA* L.—II*

While revising the genus *Crotalaria* L. for the Flora of India, it has been found that *C. capitata* Benth. ex Baker (1876), an Asiatic species is a later homonym of *C. capitata* Lamk. (1790), an African species. This has necessitated a new name for the Asiatic species. The specific epithet '*khasiana*' as suggested by Balakrishnan in 1962 on the specimens is adopted for this species. A collection from Burma (Maymyo, 1924. *Ing Kan* 592) which differs considerably from *C. khasiana* in the shape and size of leaf and other characters is described here as a new variety (*C. khasiana* var. *macrophylla*).

C. lanata Bedd, a distinct species, endemic to eastern and western ghats is again

*Critical notes on the genus *Crotalaria* L.-I was published in *Indian J. Forestry* 2 (3) : 280-283, 1979

a later homonym of *C. lanata* Thunb., an african species. A new name *C. beddomeana* Thoth. et Ansari is, therefore, given to this species.

Crotalaria khasiana Bal. ex Thoth. et Ansari nom. nov. *C. capitata* Benth. ex Baker in Hook. f. Fl. Brit. Ind. 2: 74. 1876. non *C. capitata* Lamk. Encycl. 2: 195 (III. t. 617. t. 3). 1790.

Type: Khasia, 1520-2128 m, *J. D. Hooker & T Thomson* s. n. (Isotypes CAL! MH!).

Distribution: India, Bhutan, Burma and China.

Notes: *C. capitata* Lamk. is now *Priestleya laevigata* DC. (Benth. in Hook. Lond. J. Bot. 2: 445. 1843).

Crotalaria khasiana Bal. ex Thoth. et Ansari var. **macrophylla** Thoth. et Ansari var. nov.—a varietate *khasiana* differt in formis magnitudimibusque foliorum; stipulis bracteis bracteolis unguibusque vexillorum longioribus.

C. khasiana var. *macrophylla* differs from *C. khasiana* var. *khasiana* in the shape and size of leaves and stipules, bracts, bracteoles and the claw of the vexillum being longer than var. *khasiana*.

Stem branched, terete, densely brown silky pilose; internodes 2.5-6.5 cm (-9 cm) long. Leaves 7.5-8.5 × 2 6-2.1 cm, elliptic-oblong or oblong-lanceolate, apex acute or short-acuminate, base acute or sub-obtuse, glabrescent above, densely and appressedly brown silky pilose below; lateral veins 8-10 pairs; petioles 3-4 mm long, pilose; stipules 4-8 mm long, linear, densely pilose, reflexed upward. Inflorescence terminal, conjested raceme; peduncles 2.5-7.0 cm long, stout, densely pilose with few extra bracts. Flowers 5-8, 1.5-1.9 × 0.7-1.0 cm; pedicels 1-2 mm long, cernuous, densely pilose; bracts 8-17 × 1.0-1.5 mm, linear or linear-lanceolate, deflexed, densely pilose; bracteoles 2, beneath the calyx, 8-13 × 1 mm, linear, densely pilose. Calyx 5-lobed, densely silky, rusty-brown pilose outside, glabrous inside, hairs up to 2 mm long, margin densely ciliate, tube 2-3 mm long, lobes 2-lipped, upper 2 divided up to the base, 13-15 × 3-4 mm, oblong-lanceolate, acute, lower 3 divided to a little more than half way, 15-16 × 1-2 mm, linear-lanceolate, acuminate. Corolla blue, more or less equal to the calyx-lobes; vexillum 15 × 7-10 mm, obovate or rhomboid, apex obtuse or sub-truncate, pilose on the back at the apex, callositis 2 at the base, band-like, claw 4-5 × 2 mm, straight, woolly at the base; wings 11-13 × 3.5-4.5 mm, obovate or obovate-oblong with few hairs on the claw and on the limb below, transverse ridges distinct in the lower portion, claw 4 mm long, keels 9-10 × 8-9 mm, beak 2-3 mm long, pointed, claw 4 mm long, margin ciliate. *Stamens*: alternate filaments slightly flattened, tube 6 mm long, free filaments 3-6 mm long; longer anthers 2.3-2.5 mm long, oblong, shorter anthers 0.5 mm long, orbicular-ovoid. *Ovary*: 10-13 × 1.0-3.5 mm, oblong, narrowed upwards, glabrous; style 7-8 mm long, pilose throughout on the inner side, more so at the apex; stigma flat; ovules 18-24.

Type: Peinnegon Yegyauny, Maymyo district, 1200 m, 6.12.1924, *Ing Kan* 592 (Holotype CAL!)

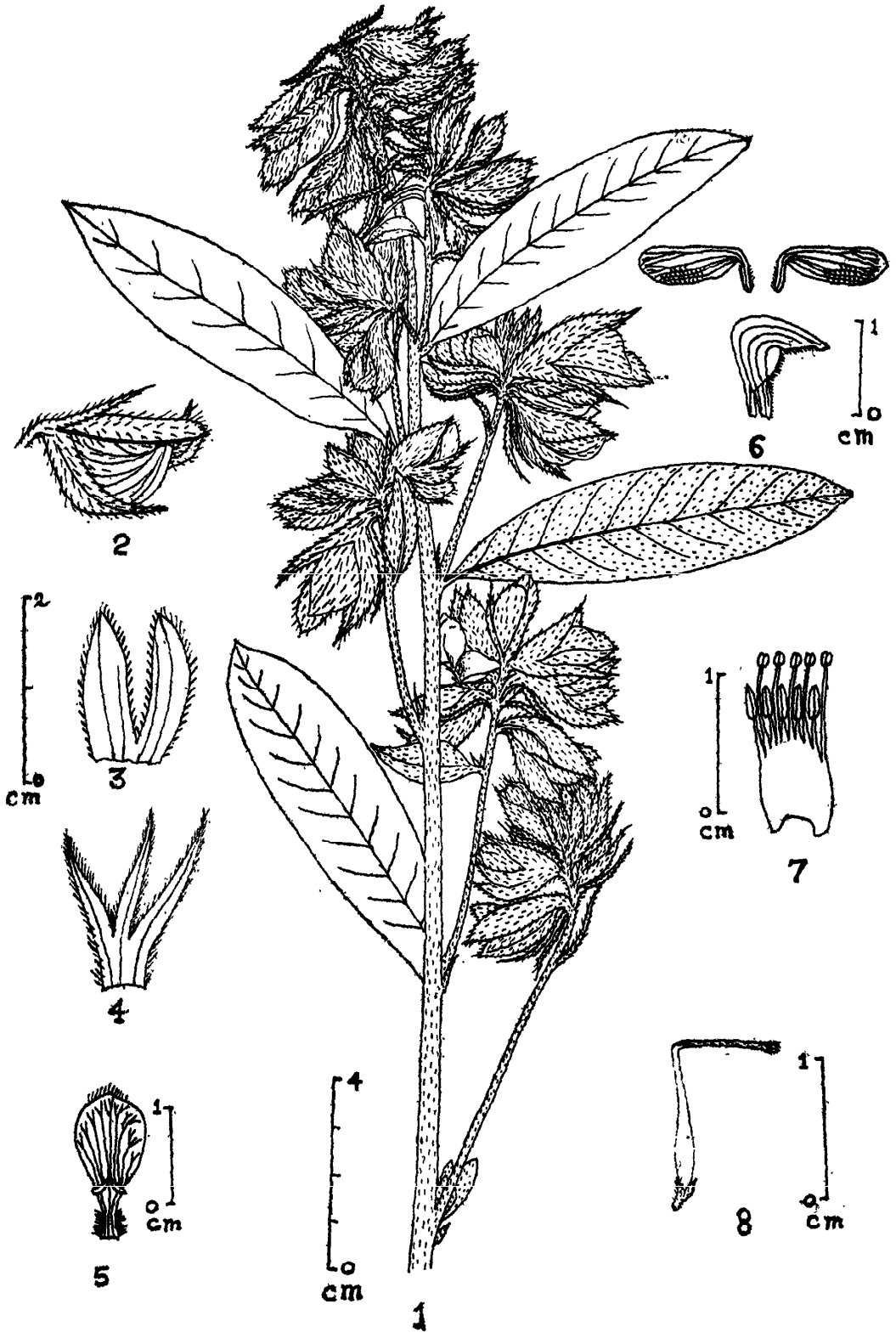
Distribution: Burma.

Crotalaria beddomeana Thoth. et Ansari nom. nov. *C. lanata* Bedd. in Madr. J. Lit. & Sc. N. S. 3(6): 178. 1858 et Ic. Pl. Ind. Or. 22. t. 105. 1874 non *C. lanata* Thunb. Prodr. Pl. Cap. 571. 1796.

Type: Pulney Hills, 1858, *Beddome*, 2(CAL—Isotype!)

Distribution: India (Eastern and Western Ghats).

Notes: Beddome [in Madr. J. Lit. & Sc. N. S. 3(1): 42. 1864] had mistakenly annotated this species under the name *C. lunata*. *C. lanata*, Thunb. is now *Priestleya villosa*



Crotalaria khasiana Bal. ex Thoth. et Ansari var. *macrophylla* Thoth. et Ansari

Figs. 1-8: 1. A branch with inflorescence. 2. A flower. 3. Upper lip of calyx. 4. Lower lip of calyx. 5. Vexillum. 6. Wings and keels. 7. Staminal column. 8. Ovary.

DC. (Harvey & Sonder, Fl. Capen. 2: 20. 1861-1862).

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NOTES ON *PHOLIDOTA IMBRICATA* LINDL. (ORCHIDACEAE) AND ITS LOCAL USE IN RANCHI DISTRICT, BIHAR

Orchidaceae, the largest family of flowering p'ants is well known for its ornamental species. A few of them are of medicinal value. The dried tubers and pseudobulbs of some of them are being used in indigenous system of medicine. Caius (1936) has listed several of the species of orchids with medicinal and poisonous properties.

During the course of a plant survey of Chotanagpur region in February/March 1978, Agarwal came across an orchid being used for medicinal purposes by the local tribals and villagers at Lohardanga in Ranchi District of Chotanagpur region of Bihar. According to the people here the pseudobulbs finely macerated in mustard oil and applied to joints helped to alleviata rheumatic pains. Even water extracts of crushed pseudobulbs was credited with curative properties if taken internally. It was also observed that in their weekly bazars, the pseudobulbs of the orchid were found to be one of the regular commodities for sale by the tribals and villagers. A single pseudobulb is considered sufficient for one application in the affected part of the body. The medicinal property of the orchid has not been reported in Chopra (1956), Kirtikar *et al.* (1935), Watt (1891) & Wealth of India (1969).

This orchid introduced in the Indian Botanic Garden, Howrah in March, 1978 is flourishing and has flowered. On critical study it is identified as *Pholidota imbricata* Lindl. At Lohardanga, it is a common epiphyte and on some of the trees the old

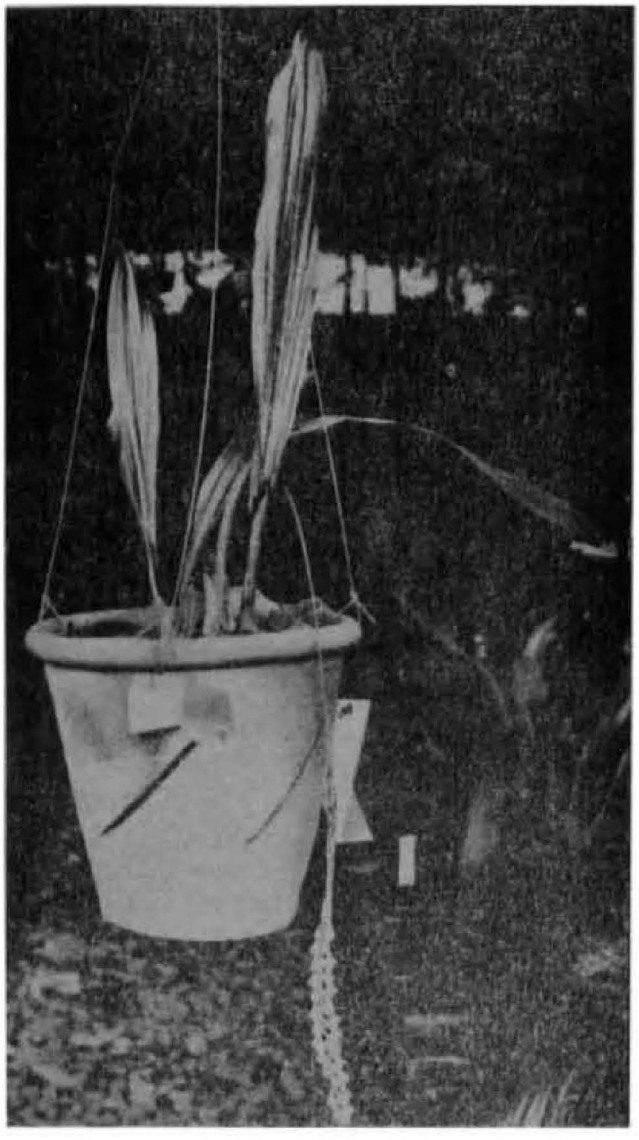

Plate I. *Pholidota imbricata* Lindl. in a pot at Indian Botanic Garden, Howrah