

Crotalaria kurisumalayana Sibichen & Namoy (Fabaceae) : a new species from India

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Crotalaria kurisumalayana Sibichen & Nampy (Fabaceae), a new species from India

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Abstract

SIBICHEN, M. THOMAS & S. NAMPY (2007). *Crotalaria kurisumalayana* Sibichen & Nampy (Fabaceae), a new species from India. *Candollea* 62: 105-108. In English, English and French abstracts.

A new species of *Crotalaria* L. (Fabaceae) from India, *Crotalaria kurisumalayana* Sibichen & Nampy, is described, illustrated and compared with *Crotalaria multiflora* (Arn.) Benth.

Key-words

FABACEAE – Kerala – India – Taxonomy

Résumé

SIBICHEN, M. THOMAS & S. NAMPY (2007). *Crotalaria kurisumalayana* Sibichen & Nampy (Fabaceae), une nouvelle espèce d'Inde. *Candollea* 62: 105-108. En anglais, résumés anglais et français.

Une nouvelle espèce de *Crotalaria* L. (Fabaceae), *Crotalaria kurisumalayana* Sibichen & Nampy, est décrite, illustrée et comparée avec *Crotalaria multiflora* (Arn.) Benth.

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The genus *Crotalaria* L., with about 600 species, is widespread in the tropics and subtropics primarily of the southern hemisphere (POLHILL, 1982). It is represented by 99 species in India (KUMAR & SANE, 2003), of which 34 species and 5 varieties are endemic to South India (AHMEDULLAH & NAYAR, 1987: 94-97). SIBICHEN (2004) reported 66 species and 4 infra-specific taxa from South India.

During revisionary studies of the genus in South India, an interesting specimen has been collected from Kurisumala, a peak in the Vagamon hills in Kottayam District, Kerala. Critical examination revealed that it is a new species, which is described, illustrated and compared with *Crotalaria multiflora* (Arn.) Benth.

Crotalaria kurisumalayana Sibichen & Nampy, **spec. nova** (Fig. 1)

Typus: INDIA. Kerala: Kottayam District, Vagamon hills, Kurisumala 900 m., 1.XI.2002, *Sibichen & Nampy* 732 (holo-: CAL; iso-: CALI, SJC [Herbarium of St. Joseph's College, Kozhikode-8, Kerala, India]).

Species haec habitu Crotalaria multiflorae valde affinis sed statura minore, habitu prostrato ramis serpentibus arcuatis, foliis rotundatis vel ovatis, racemis laxis et leguminibus sericeis ferrugineisque differt.

Prostrate, short lived perennial herb with a few, long, slender, arcuate branches reaching 15-30 cm long. Stems and branches terete, strigose. Leaves simple, sessile; petioles 1-2 mm long; lamina 2.2-2.5 × 2-2.2 cm, nearly round, rarely ovate, base and apex more or less rounded, glabrous above and puberulous beneath; stipules 1-2 mm long, lanceolate, deflexed. Racemes terminal and leaf opposed, 10-15 cm long, lax, 2-8 flowered. Flowers 2-2.2 × 2.2-2.5 cm, showy; bracts 4 × 2 mm, ovate, ascending; bracteoles 2 × 1 mm, subulate, inserted near middle of the pedicel. Calyx 5-lobed; lobes 17 × 5 mm, lanceolate, puberulous out and glabrous in, broad

purple streaks along the margin; two upper lobes connate basally. Corolla sulphur-yellow; standard petal 2.5 × 2 cm, orbicular, slightly retuse at the apex, with two basal appendages at the base; wing petals 2 × 1 cm, obovate, base attenuate, apex rounded; keel petals 1.7 × 0.8 cm, rounded about the middle, woolly along the inner margin, beak twisted to 180°. Staminal sheath 5 mm long, glabrous; alternate filaments 9 mm and 6 mm long with ovoid (1 mm long) and oblong (3 mm long) anthers respectively. Ovary 6 × 3 mm, thinly puberulous; style 1.2 cm long, falcate with a few hairs on the inner side near the apex; stigma narrow. Pods 3.5 × 0.8 cm, oblong, much inflated, sericeous, ferruginous, 10-12 seeded; hairs non-overlapping. Seeds 4 × 3 mm, obliquely cordate, laterally compressed, arillate.

Paratypus. – INDIA. Kerala: Idukki District, Kattappana to Elappara way side, ± 780 m, 26.XII.2001, *Sibichen & Nampy* 671 (SJC [Herbarium of St. Joseph's College, Kozhikode-8, Kerala, India]).

Distribution and habitat. – Extremely rare, *C. kurisumalayana* grows in soil pockets in exposed rocks and also on vertical earth cuttings in tea estates.

Phenology. – September - May.

Etymology. – The species is named after the type locality, Kurisumala, the peak of Vagamon hills in Kottayam District, Kerala state.

Notes. – *Crotalaria kurisumalayana* is closely allied to *C. multiflora*, but is distinct in its smaller size, prostrate habit with trailing, arcuate branches; orbicular to ovate leaves; lax racemes and thinly sericeous, ferruginous pods (Table 1).

RUDD (1991: 197) has treated *C. multiflora* as apparently endemic to Sri Lanka. But it was reported from South India by GAMBLE (1918: 293), NAIR & HENRY (1983: 99) and VAJRAVELU (1990: 151). We also have collected this species from Idukki district in Kerala.

Table 1. – Morphological differences between *Crotalaria kurisumalayana* Sibichen & Nampy and *C. multiflora* (Arn.) Benth.

| <i>C. kurisumalayana</i> | <i>C. multiflora</i> |
|--|---|
| 1. Prostrate herb | Diffuse low shrub |
| 2. Branches 15-30 cm long, trailing, slender and arcuate | Branches 40-75 cm long, ascending, stout and more or less straight |
| 3. Leaves uniformly small (2.2-2.5 × 2-2.2 cm), mostly orbicular rarely ovate; base and apex rounded; lamina glabrous above and puberulous beneath | Leaves variable in size (4-6 × 2-3.5cm) and shape (ovate, lanceolate); base ovate; apex acute, lamina puberulent above and patent pubescent beneath |
| 4. Peduncle 10-15 cm long and flowers laxly arranged | Peduncle 3-7 cm long and flowers arranged towards apex |
| 5. Corolla yellow without purple striations; standard petal orbicular; keel petal woolly along the inner margin | Corolla yellow with prominent purple striations; standard petal obovate; keel petal not woolly along the inner margin |
| 6. Style glabrous; stigma narrow | Style pubescent near the apex; stigma expanded |
| 7. Pod sericeous, hairs non-overlapping; seeds laterally compressed | Pod sericeous, hairs overlapping; seeds inflated |

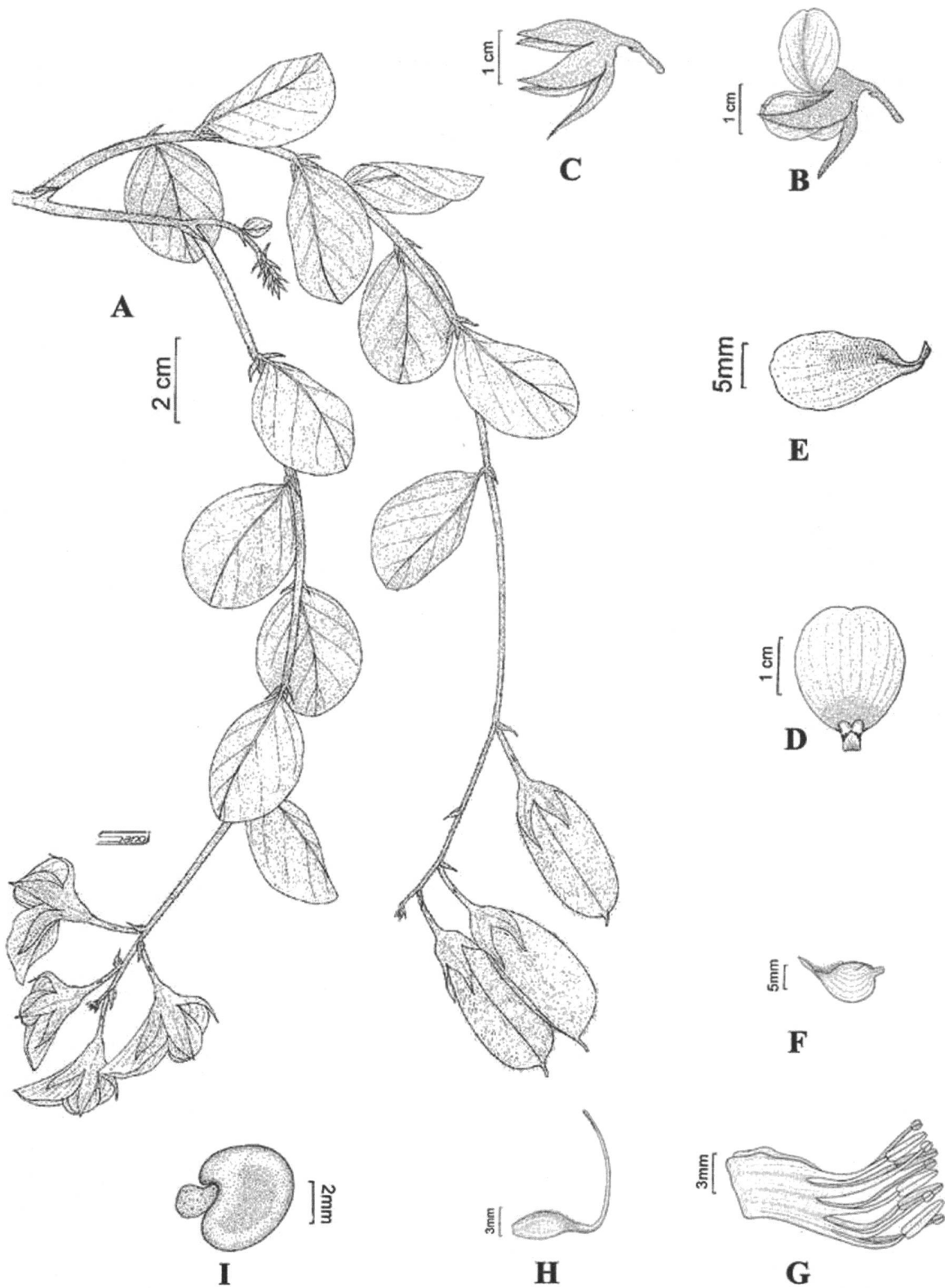


Fig. 1. – *Crotalaria kurisumalayana* Sibichen & Nampy. **A.** Habit; **B.** Flower; **C.** Calyx; **D.** Standard petal; **E.** Wing petal; **F.** Keel petal; **G.** Staminal sheath; **H.** Gynoeceum; **I.** Seed.

[Sibichen & Nampy 732] [Drawn by Sanoj E]

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