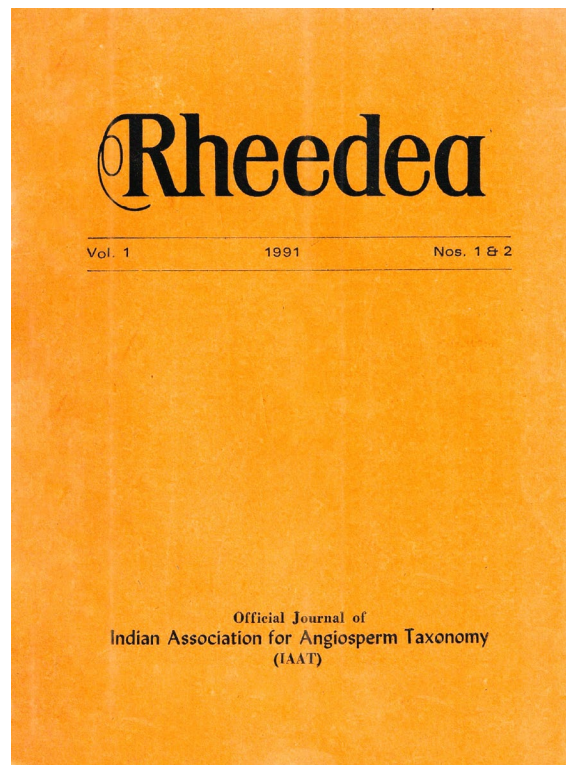




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**Justicia ekakusuma, A New Species of Acanthaceae
From Peninsular India**

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Abstract

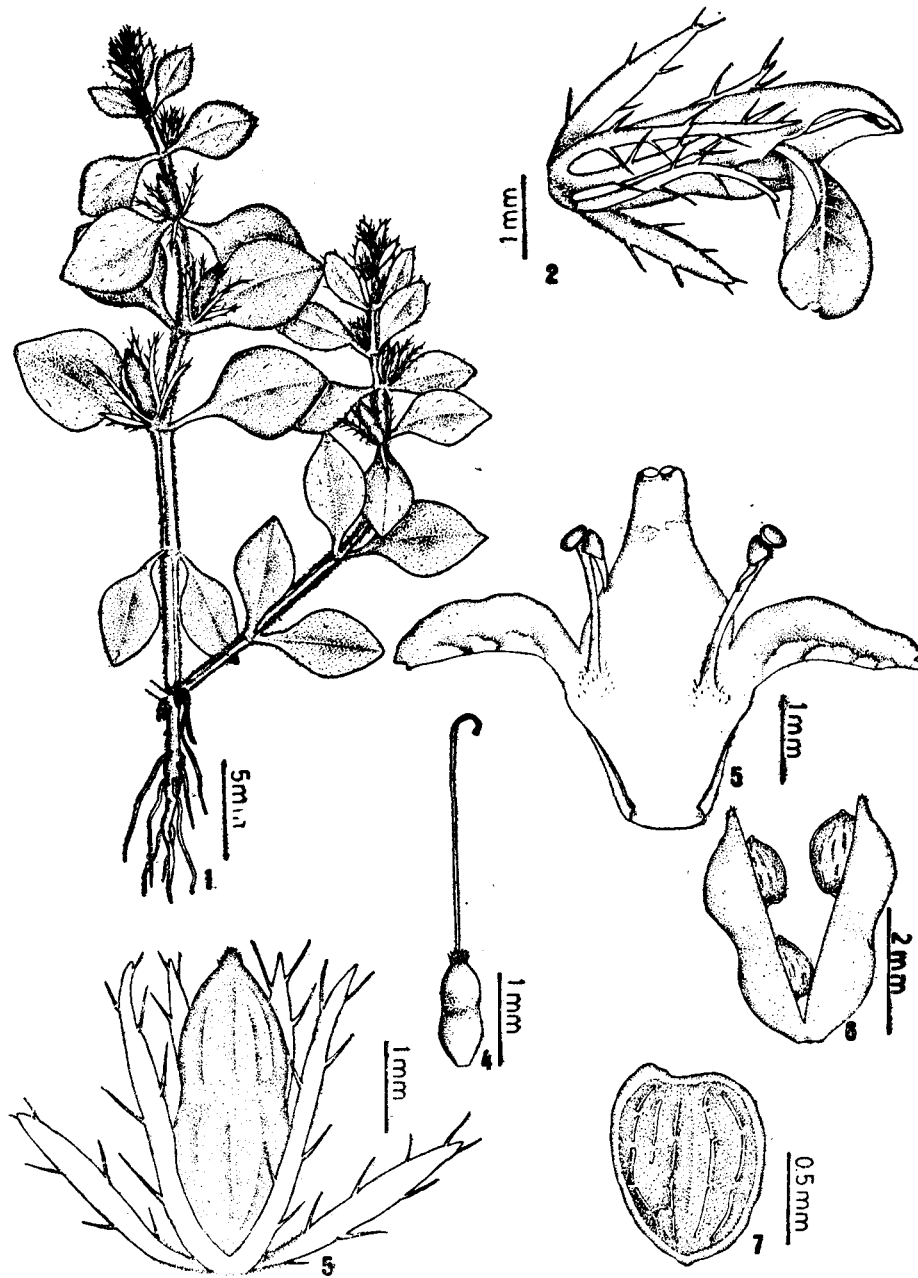
A new species of *Justicia* sect. *Restellaria*, viz. *J. ekakusuma* is described from Kerala in Peninsular India. It is allied to *J. procumbens*, but can be distinguished by its smaller habit, ovate or elliptic leaves and axillary, solitary flowers.

During the course of our explorations in Kerala, Western Peninsular India, we collected an interesting specimen of *Justicia* from the lateritic hillocks of Madai, near Payangadi in Cannanore district. Unlike other species of the genus described from India, this little annual had axillary, solitary, sessile flowers. The leaves subtending these flowers, however get gradually smaller towards the tips of branches, sometimes making the inflorescence look somewhat like terminal spikes. Yet the nature of the subtending leaves (? bracts) are very distinct from those of other related species. Graham (1988: 556) has observed that solitary flowers are unusual in *Justicia* and that they have originated "probably as a result of extreme reduction of various different inflorescence types".

Since none of the known Asiatic species of the genus has such inflorescence, we were curious about it and referred the specimen to Dr. Bertel Hansen, Copenhagen, who wrote us back: "I have never seen anything like it and it

will be interesting to see in the future, if it turns up in similar localities.....I see no spikes in your specimen, only axillary solitary flowers.....bracteoles and calyces seem to be very similar to the morphology shown by *J. procumbens* which I would consider the closest relative" (pers. comm., 2. 10. 1990), and expressed doubt that it could be a form/variety of the latter, which he maintained in subsequent correspondence also.

J. procumbens Linn. (Sp. Pl. 1. 15. 1753) was originally described as ".....foliis lanceolatis integerrimis spicis terminalibus lateribusque alternis bracteis setaceis. Fl. Zeyl. 19. Habitat in Zeylona". Dr. Roy Vickery, BM, kindly sent us a photograph of this specimen (Herm. Herb. 2: 4, chosen as the lectotype of the species vide Graham, 1988: 597). We have also studied the Indian specimens of this species at MH. This is a relatively large plant, sometimes rooting at lower nodes and have lanceolate leaves and terminal, often peduncled spikes (see also, Ellis, 1980: 195), and has no trace of



Figs. 1-7 *Justicia ekakusuma*

- 1 Habit
- 2 Flower with bracteoles
- 3 Corolla split open showing stamens
- 4 Pistil
- 5 Fruit with persistent bracteoles and calyx
- 6 Capsule showing dehiscence
- 7 Seed.

axillary, solitary flowers. Our specimen in contrast, is much smaller, has distinctly ovate or elliptic leaves and bears a sessile, solitary flower in every axil, except a few basal ones. In spite of its similarity in bracteolar and calyx characters with *J. Procumbens* which Dr. Hansen emphasised, our material keep distinct, and hence is described here as new. The specific epithet *ekakusuma* (eka = single, kusuma = flower, Sanskrit) signifies the solitary flowers of the taxon.

Justicia ekakusuma Pradeep et Sivarajan, *sp. nov.* (Figs. 1-7)

At *Justicia* sect. *Rostellaria* pertinens haec species *J. procumbentum* similissima sed facile distinguere potest in habitu multo minore, foliis ovatis vel ellipticis et floribus semper axillaribus solitariis.

Type: India, Kerala, Cannanore Dist., Payangadi, Madaipara. Pradeep 50401 (holo, MH; iso, CALI).

Belonging to *Justicia* sect. *Rostellaria*, this is closely allied to *J. Procumbens* L., but can easily be recognised by its much smaller habit, ovate or elliptic leaves and axillary, solitary flowers.

Small, erect, branched annual herb, 5-7 cm tall; stem quadrangular, minutely retrorse hairy at angles; leaves 5-6 x 4-5 mm, ovate or elliptic, entire, glabrous or with scattered, minute hairs, acute or subacute at apex, cuneate at base, margin entire beset with a few bulbous based hairs, lateral veins faint; petiole short,

1-2 mm long, minutely puberulous; flowers sessile, axillary, solitary, sometimes in apparent short terminal spikes as the leaves become progressively smaller towards branch tips, bracteoles 2, green, glabrous, linear or spatulate, 2.5 x 0.5 mm, shorter than the sepals, margins with scattered long setose hairs, minutely puberulous at base; calyx divided nearly to base, segments 4, 3 mm long, linear-lanceolate, margins scarious with distant bulbous based hairs; corolla 4 mm long, pink; tube 2 mm long; upper lip erect, enclosing the stamens, 2 x 1.5 mm, ovate, bilobed at apex, lobes rounded, cucullate; lower lip 2 x 2 mm, minutely 3-lobed, nerves on palate whitish; stamens 2, 2 mm long, filaments flattened, glabrous or minutely hairy at base; anthers 0.4 mm long, lobes slightly superposed, the lower lobe terminating in a 0.3 mm long apiculum; ovary 1 mm long, green, ellipsoid; capsules 4-5 mm long, black at maturity, almost as long as the persistent calyx, cylindrical with a constriction near the middle, apex minutely puberulous, the two valves not arched out after dehiscence; retinacula minute, rounded at apex; seeds 2 in each locule, 1 x 0.7 mm compressed, ovate or sub-orbicular, distinctly margined, margins shortly winged, surface faintly rugose.

This taxon was found commonly growing in the humus deposit on wet lateritic rocks, in association with *Rotala malampuzhensis*, *Rhamphicarpa longiflora*, *Uriculalaria* spp. and grasses like *Glyphochloa acuminata*, *Sporobolus piliferus* etc.

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