

BOTANICAL NOTES ON THE IDENTITY OF CERTAIN HERBS USED IN AYURVEDIC MEDICINES IN KERALA. III. HRIBERA AND AMRAGANDHA

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ABSTRACT: *The identity of the drugs 'Hribera' and 'Amragandha', as they are chosen currently, is discussed here 'Hribera' is identified as Coleus Zeylanicus. An artificial key and identifying features of the accepted source of Amragandha and related taxa which are possibly mixed it are also provided.*

Hribera (Iruveli, Mal.)

The genus *Coleus* Lour. (Lamiaceae) has at least four species in South India which are commonly used in food, medicine and ornamental horticulture. *C. rotundifolius* (Poir.) A. Cheval & Perr. Syn. *C. parviflorus* Benth. (Rheeda, XI, t. 25), a native of tropical Africa, is now cultivated as a food crop in India, Indonesia and Srilanka new Ceylon. *C. acutellarioides* (Linn.) Benth. (Syn. *C. blumei* Benth.) is a highly variable ornamental, commonly cultivated in gardens throughout the tropics for their beautiful foliage.

Two species of the genus are widely used in Ayurvedic medicine. They are not found wild, but are widely found grown in medicinal gardens. The drug *Karpuravalli* or *Pashanabhedi*, known as *Kannikurka* or *Panikkurka* in the vernacular, is equated with *Coleus ambonicus* Lour. (syn. *C. aromaticus* Benth). This species of unknown origin is currently widely

cultivated in the Indo Malesian region and is introduced into Mexico and USA. In Sri Lanka a decoction of the juice of this plant mixed with that of onion is reportedly used in Veterinary medicine to treat dysentery and diarrhoea of cattle (Cramer 1981). In Kerala this species is widely cultivated as a pot herb in homestead gardens and the leaves are used as a single drug remedy for children's cough and cold.

The botanical identity of the drug 'Hribera' or 'Valakam' has been disputed. The controversy has been adequately dealt with by Warriar (1981). Thus the drug has been equated with *Anisochilus carnosus*, *Coleus spicatus* (cf. Warriar. 1981), both of Lamiaceae and even with *Pavonia odorata* of Malvaceae (Kapoor & Mitra, 1979). However, none of these species is accepted as the source of *Hribera*, known as *Iruveli* in Malayalam. Some of the authors, however, have identified the Kerala material as *Coleus*

vettiveroides Jacob (Singh & Chunekar, 1972; Anonymous 1981; Warriar 1981). This species, reportedly cultivated in Tamil Nadu on river banks and sandy loams for their fragrant roots used for the decoration of temple images and also for dressing hair and known as *Kuruver* or *Vettiver* in Tamil (Anonymous, 1980), is however a quite distinct species with highly aromatic roots, smelling like those of 'Khaskhas' *Vetiveria zizanoides* (Linn.) Nash, a highly aromatic and medicinal grass. In any case, the herb accepted as the source of Hribera (Iruveli) in Kerala is *Coleus Zeylanicus* (Benth.) Cramer (syn. *Plectranthus zeylanicus* Benth). (see figure). The material has been compared with the specimens at Kew (England) and Peradenniya (Sri Lanka) and has been found to be identical with the Ceylonese species, *C. zeylanicus*. This species is reportedly an endemic taxon of Sri Lanka, where it is known by the Sinhalese name *Iruveriya*, the juice of stem and leaves of which mixed with honey is taken as a remedy for diarrhoea and is not known in the wild. This has been introduced in this part of the country since long and probably owes its Vernacular name to its original Sinhalese. Rheedee has illustrated this herb in his *Hortus Malabaricus* (IX t, 74). However, no work on Indian flora or Indian medicine has taken note of this species thus far or may be that it had been wrongly identified.

C. Zeylanicus (Benth.) Cramer. Syn. **Plectranthus zeylanicus** Benth.

Profusely branched semi – succulent, strongly aromatic, soft tomentose herb with fibrous roots, leaves slightly fleshy, ovate or orbicular, acute, retuse or emarginate at apex, rounded or truncate at base, margin crenate – serrate, surface bullate, flowers small, blue or purplish in terminal, paniced thyrus; calyx 2 – lipped, glandular; corolla 2 – lipped, upper lip 4 – lobed, lower entire,

boat – shaped; stamens 4, didynamous, filaments connate below; ovar 4 – lobed; style slender, stigma 2 – fid.

Closely similar to *C. ambonicus* Lour., but can readily be recognised by its characteristically different odour and less succulent leaves.

Amragantha:

This drug, known by the name *Mannanari* in the vernacular, is equated with certain species of the genus *Limnophila* R. Br. Rheedee in his *Hortus Malabaricus* mentions three different types of *Mannanari* namely, *Mannanari* (X, t.6), *Cheriyā Mannanari* (IX, t. 85) and *Valiyā mannanari* (X. t.40), corresponding to *L. aromatica* (Lam.) Merr., (*L. gratissima* Blume), *L. indica* (Linn.) Druce (Syn. *L. gratioloides* R. Br.) of Scrophylariaceae and *Vollastonia biflora* (Linn.) DC. (Syn. *Wedelia biflora* Linn.) of Asteraceae, respectively.

The currently most widely accepted sources of this drug are *L. aromatica* and *L. indica* (Kirtikar & Basu 1918, Nadkarni 1954, Chopra et al 1956). *L. indica* as has been identified earlier, included two different species, *L. aquatica* (Roxb.) Alston (Syn.) *L. racemos* Benth. and *L. gratioloides* R. Br., until Philcox (1970) segregated them under two different binomials. Probably, all these species are involved in this drug *Amragantha*.

It has been found that in North Malabar area, a different species of the genus namely, *L. repens* (Benth.) DC (Syn. *L. conferta* Benth) is accepted as the source of the drug. It is a diffuse or erect fleshy herb in marshes and swamps, often purple suffused, with small, sessile or sub sessile axillary flowers.

We have several closely similar species of the genus commonly available in our flooded or marshy fields and ponds and it is likely that the drug used is an admixture of several of them. A diagnostic key for such species with which they can be clearly segregated is provided below:

1. Leaves monomorphic.
2. Flowers sessile or subsessile, opposite, leaves elliptic *L. repens*.
3. Flowers long pedicelled, leaves often 3-nately whorled, ovate to lanceolate... *L. aromatica*.
4. Leaves dimorphic, submerged leaves highly dissected, aerial leaves entire:

5. Flowers sessile or subsessile....*L. heterophylla*.
6. Flowers pedicellate:
7. Flowers in terminal racemes, leaves on aerial stem, opposite entire.... *L. indica*.\
8. Flowers axillary, solitary, leaves on aerial stem verticillate... *L. aquatica*.

L. repens (Bench). DC (Syn. **L. conferta** Benth).

Erect or diffuse, fleshy, annual herb; leaves opposite, sessile 2.5 x 1 cm., elliptic acute, crenate – serrate, glabrous, pinnately veined; flowers usually axillary, solitary or in racemes, sessile or short – pedicelled.



Distribution:

South and South East Asia. In India, Western Peninsula, in moist or wet places, paddy fields etc.

L. aromatica (Lam.) Merr. (Syn. **L. Gratissima** (Blume)

Erect, amphibious herb; leaves opposite or ternate, sessile, oblong – lanceolate, acute. Distantly, minutely serrate, glabrous, pinnately veined; flowers violet, in terminal racemes, long pedicelled.

Distribution:

South and South East Asia and Australia. In India: Western Peninsular India, in wet places, paddy fields etc.

L. heterophylla (Roxb.) Benth.

Aquatic herbs; leaves dimorphic, submerged leaves multifid, lobes linear, aerial leaves opposite, sessile, elliptic or oblong, minutely crenulate, basally 3 – veined; flowers axillary solitary sessile.

Distribution

South and South East Asia. In India: the whole of S. India, in flooded fields and ponds.

L. Indica (Linn.) Druce (Syn. **L. gratioloides** R. Br.)

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Small herbs, 8 – 15 cms tall, leaves all verticillate, variously lobed, the lower ones multifid, the upper few entire or shallowly lobed; flowers pale yellow, long pedicelled solitary in the upper axils.

Distribution

Asia, Australia and Africa. In India: Whole of S. India, in marshes, swamps and ponds and in flooded low lands. *L. aquatica* (Roxb.) Alston (Syn. *L. racemosa* Benth.)

Aquatic herbs with dimorphic leaves, submerged ones multifid, lobes capillary, aerial leaves opposite, basally 3 – veined, elliptic lanceolate, serrate; flowers white with purple blotches in terminal racemes or solitary in the upper axils, long-pedicelled.

Distribution

Sri Lanka and India. Whole of South India, in flooded fields and ponds.

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