

NOMENCLATURAL CONFUSION ON ECLIPTA PROSTRATA (L.) L.

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ABSTRACT: *Eclipta prostrate (L.) L. (Asterceae) is a valuable plant used in the treatment of various human ailments in Ayurveda and Siddha systems. Nomenclatural confusion prevails as different plants are mentioned in Indian medical literature as Bhringaraja and Karisalahanni. It is evident from the present study that the nomenclature Bhringaraja and Karisalahanni must be restricted only to Eclipta prostrate (L.) L.*

INTRODUCTION

India is endowed with a rich wealth of medicinal plants. Most of these drug plants continue to be gathered from the wild. The correct identification of wild medicinal herbs used in Indian systems of medicine is one of the most serious problems confronting medical practitioners as well as pharmaceutical concerns. The nomenclatural systems used by the ancient Indians, attributing different names to the same plant and same name for different plants together with the time lapse, have caused considerable confusion in procuring the medicinal herbs in various parts of the country by various people. Nomenclatural confusion prevails with reference to **Eclipta prostrate** (L.) L. (Asteraceae). In the ayurvedic medicinal literature different species are called **Bhringaraja** 1 – 4. Similarly the siddhas claim the occurrence of four types of **Karisalahanni** namely, blue, yellow, red white varieties⁵.

The present study has been undertaken to clarify these nomenclatural irregularities and to find out the correct botanical identities of the so called varieties of **Bhringaraja** and **Karisalahanni**.

Observations

Eclipta prostrate (L.) L. Asteraceae is accredited to the territory period⁶. The history and its centre of origin are debatable. Thomas⁷ and Drury⁸ consider this plant to be indigenous to India. This plant now enjoys wide distribution. **E. prostrate** occurs throughout India, ascending up to 2000 metres in the Himalayas and other mountains⁹.

The varied Indian vernacular nomenclature of **E. prostrate** are as follows:

Sanskrit : **Bhringaraja, Kesaranja, Ajakara**

Hindi : **Bhangarila, Bhangra, Mochkand, Babri**

Bengali : **Kesuti, Kesharaya, Keshukti, Keysuria, Keshuri**

Marathi : **Bhringaraja Makra**

Gujarathi : **Bhangra, Kaluganthi, Dodhak, Kalobhangro**

Telugu : **Galagara, Guntakalagara**

Tamil : **Karisalanganni, Kayyanthagarai, Karisalai, Kavichhi Ilai.**

Kannada : **Garagadasoppu**

Malayalam : **Kayannyam, Kayyonni**

Oriya : **Keshadara**

Sindhi : **Tik**

Confusion still prevails with regard to the ayurvedic nomenclature of **E. prostrata**. Three different species of plants are called **Bhringaraja** or **Bhangra** in Ayurveda. They are **Eclipta prostrata (L.) L.**, **Wedelia calendulacea** Less., and **Heliotropium brevifolium** Wall. **H. brevifolium** is also known as **Kala Bhangra** or simply as

Bhangra H. brevifolium is known as **Safed Bhangra** and **W. calendulacea** as **Pila Bhangra** or **Pita Bhringa**. All the three species occur in wild. **E. prostrata** and **W. calendulacea** seem to be in more common use for medicinal purposes than **H. brevifolium**. Even though these three species of plants are said to have similar medicinal and chemical properties, they belong to discrete genera with different morphological and cytological characteristics.

Siddha nomenclature of **E. prostrata** is confusing. In siddha literature it is recognized by different names, like **Karisalanganni, Kaiyanthagara** and **Karisalai**. Siddhas claim the availability of four varieties of **Karisalanganni, Vellai Karisalanganni** (white variety), **Manjal Karisalanganni** (yellow variety), **Nila Karisalanganni** (blue variety) and **Sivappu Karisalanganni** (red variety). The botanical details of these varieties of **Karisalanganni** are as follows:

Vellai Karisalanganni: Eclipta prostrata (L.) L. (syn. E. alba, E. erecta).

Family : Asteraceae

Inflorescence | capitulum with white, florets.

TABLE 1

Comparative botanical characters of the plants commonly called Bhringaraja (ayurveda) and Karisalanganni (siddha)

Characters	Eclipta prostrate	Wedelia chinensis	Caesulia axillaris	Heliotropium brevifolium
Family	Asteraceae	Asteraceae	Asteraceae	Boraginaceae
Habitat	Moist and dry places	Moist places	Moist places	Moist places
Habit	Erect or prostrate annual herbs	Procumbent perennial herbs	Prostrate or sub-erect annual herbs	Much branched, low, sometimes, procumbent under shrubs
Leaves	Opposite, leaf shape variable, crenate to serrate margin	Opposite, leaf shape variable, crenate to serrate margin	Alternate, lanceolate, serrulate margin	Alternate, oblong to lanceolate, reflexed margin
Inflorescence	Capitulum, heterogamous axillary, sessile or stalked, florets white coloured	Capitulum, heterogamous, terminal, stalked, florets yellow coloured.	Capitulum, homogamous, axillary, sessile, florets blue coloured	Terminal dichotomous spikes or racemes, flowers small, white or pale purple coloured
Seed	Achene's, triquetrous, narrowly winged, warty excrescent seed surface, light brown to dark brown or black coloured, pappus 3 – 4 ovate scales at the top	Achene's, laterally compressed, narrowly winged, warty, excrescent seed surface, light brown to dark brown, pappus of 2 ovate scales at the top	Achene's, flat, winged on each side, separately hairy, light brown to dark brown.	Nutlets ovoid, with minute grey hairs.
Chromosome Number	2n = 22	2n = 50	2n = 18	2n = 32

Manjal Karisalanganni: Wedelia chinensis (Osbeck.) Merr. (syn. **W. calendulacea**)

Family : Asteraceae

Inflorescence | capitulum with yellow coloured florets.

Nia Karisalanganni: Caesulia axillaris Roxb.

Family : Asteraceae

Inflorescence | capitulum with blue coloured florets.

Sivappu Karisalanganni: Neither its botanical identity nor its herbarium specimen is available.

The botanical details of the plants collectively called **Bhringaraja** or **Karisalanganni** have been furnished in Table 1.

Black variety (**Kala Bhangra**) of **E. prostrate** is not known to be existing as a discrete species¹⁰. The black stem colour of **E. prostrata** has been proved experimentally to be due to the development of anthocyanin pigments in response to direct sunlight¹¹.

Conclusion

Eclipta prostrate (L.) L. was not observed to produce inflorescences of different colours to be claimed as discrete varieties. The so-called varieties of **Bhringaraja** and **Karisalanganni** are known to be different plants. Hence, it is concluded that the names **Bhringaraja** (Sanskrit), Bhangra (Hindi), Karisalanganni (Tamil) and other commercially or medically used vernacular names should be restricted only to **E. prostrata** in the Indian pharmacopoeia. An effective vernacular nomenclatural code for the Indian medicinal plants, if promulgated, will solve this perennial confusion pertaining to the names of medicinal and other economically important plants.

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