

ON THE IDENTITY AND ECONOMICO-MEDICINAL USES OF
HASTIKARṆAPALĀŚĀ (*Leea macrophylla* Roxb., Family : Ampelidaceae)
AS EVINCED IN THE ANCIENT (SANSKRIT) TEXTS AND
TRADITIONS*

R. S. SINGH¹ AND A. N. SINGH²

Department of Rasa Shastra, Institute of Medical Sciences,
Benaras Hindu University, Varanasi 221005

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Sanskrit texts and classics, including Vedic Literature, abound in important notices about plant species, lying dispersed in the veil of obscurity. Despite the fact, that these texts have been, and are being put to scholiastic and micro-analytical studies by the scholars at large, both inland and abroad, a probing exploration and exposition of the economico-historical facts and values along with critical appreciation of the descriptive notices and revisualisation and scientific assessment of their alleged utility values are still awaited. At times, many of these plants are still surviving and sustaining their memory in regional or local traditional usage, met with incidently in both, rural and urban markets, in ethno-botanical and field studies. Hence, a need is felt for a detailed research-oriented study on the Ancient Floral knowledge. not only for the solace of literary exercise but also in their scientific and technological perspectives along-with their economico-social and geographico-historical aspects. This paper deals with the findings arrived at pertaining to *hastikarṇapalāśā* as evinced in its antecedents in textual references as well as its surviving use in the regional tradition met with by the authors in the field study. Various knotty points and confusions prevailing regarding its correct identity have also been resolved.

Hastikarṇapalāśā is not noticed in the Vedic Literature¹, *Aṣṭādhyāyī* of Pāṇini, *Bhela Samhitā*², and *Caraka Samhitā*³, suggesting thereby that the

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¹ Prof. & Head of the Department and INSA Supervisor for Ph. D. & Post doctoral Research in History of Science and Technology.

² INSA Research Fellow & Ph. D. Scholar, Deptt. Ancient History, Culture and Archaeology (B. H. U.)

plant was not known in the ancient North-Western India. But *hastikarṇapalāśa* definitely seems to be known in the North-Eastern India (Assam, Bengal, Bihar and forest areas of the Vindhya and the sub-Himalayan tract on the northern and southern border lands of the Gangetic Plain) from the very ancient times as evidenced by the ancient textual references⁴⁻⁷ and its surviving name, *hathikana*, *hatkana* and other ethnobotanical evidences met with in the tribal forest areas of Bihar⁸ and Mirzapur⁹ (U.P.). In the *Samhitās*, the leaves have been recognised as local anti-inflammatory and anodyne agent^{4, 5}. But the economic uses of the (dried) leaves of *hastikarṇapalāśa* in war-strategy as component of 'Tear-Gas type of Formula⁶ and in *stupefying formula* (*Madanyoga*⁷) in the *Arthaśāstra* are particular to it, and perhaps the oldest record of its economic use other than medicinal ones.*

The epithet *Hastikarṇa* as a plant-name, being descriptive of this name-bearing plant, suggests, perhaps, the plant bearing very big size and fan-like leaf (like the ear of an elephant) in contrast to its stature (meaning a plant having leaves like elephant's ear). The plant to which, the local names *hathikana*, *hatkana*, *hatkana* are used in the tribal and forest areas^{8, 9}, has botanically been identified as *Leea macrophylla* Roxb. ex Horneman (Family: Vitaceae). It is a herb or a large herbaceous shrub, 90 cm or more in height with switchy branches and perennial tuberous roots, distributed throughout the hotter parts of India, from the Ganges eastwards to Bihar, Bengal, Assam, the Terai and its contiguous plains and in the Western India from Konkan southwards.

The leaves are simple, ovate-cordate conspicuously large (lower leaves upto 60 cm diam. (blade 8"—24"), nearly white beneath, petiole 2"—5"; Flowers in corymbose cymes, whitish, berries depressed globose black (*The Wealth of India*, Vol. VI. 1962. pp. 56-57, and other Indian Floras).

In the post-*saṃhitā* period texts and tradition, the epithet *hastikarṇa* became current for altogether different plant species (*Rakta*) *erandaḥ*: *Raktarandaḥ* (*Ricinus species*), cultivated extensively in Gujarat and parts of Maharashtra) on the analogy of the size and shape of its ornamental leaves¹⁰; and in the *Āyurvedic Nighaṅṭus*. It is further confused with *Mānakand* etc. (*Rāja Nighaṅṭu/Mūlakādivarga*⁷). And the plant *hastikarṇa* representing *Leea macrophylla* is practically lost in obscurity in the *Āyurvedic Nighaṅṭus* and the Sanskrit lexicons too. *Indu* the learned commentator (c. A.D. 13th-14th century) on *Aṣṭāṅga Saṃgraha* also equates *hastikarṇa* with *raktairandaḥ*¹¹.

But from the survey of Puranic Literature, *Āyurvedic* texts and tradition of Bengal School of Physicians and ethnobotanical field notes of the senior

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author, it is quite evident that the original *hastikarnapalāśa* representing *Leea macrophylla* still sustains its popularity in the texts and tradition. Surprisingly enough, it is worthwhile mentioning here that, a full small chapter in the *Garuḍa Purāṇa*^{1*} is devoted to *hastikarnapalāśa*, where it has been extolled for 'Rasāyana properties' quite new and peculiar from its uses reported in earlier references.

It is, rather, a very important drug of the Bengali Kavirājas in Calcutta and elsewhere in Bengal. The "tuberous roots" of *hastikarnapalāśa* which are 5 cm to 30 cm long are sold in the green drug markets of Calcutta in the winter and are supposed to possess potent tonic and alterative (*balya* and *rasāyana*) properties. These are extensively used by the Ayurvedic physicians in the preparation of seasonal tonic *modaka* preparations^{13, 14}.

Looking to the health-restoring values and easy availability of the plant (roots), it may be interesting to investigate and assess the alleged properties on modern scientific parameters also in the interest of the Nation's Health Economy¹⁵.

NOTES AND REFERENCES

- 1 Macdonell & Keith, Vedic Index of names and subjects, Vols. I & II, Original edition published by John Murray & Co., London, 1912. Reprinted Edition by Motilal Banarasidas, Bungalow Road, Jawahar Nagar, Delhi 6, 1958.
- 2 *Bhela Saṃhitā*, Published by C.C.R.I.M. & H. Ministry of Health, Govt. of India, Shri Vani Vilas Press, Srirangam, 1977.
- 3 Singh, R. S.—Botanical Identity and Critical Appraisal of the Flora of *Caraka Saṃhitā* (Un-published).
- 4 *Kāśyapa Saṃhitā, Khilasthāna* Chapter 17/190 Edited by Hemraja Sharma, Chowkhambha Sanskrit Series, Varanasi, 1953.
- 5 *Sūsruta Saṃhitā* with the commentary of Dalhaṇa, *Sūtrasthāna*, Chapter 39 (page 172); 45/115 (page 206). Edited by Vaidya Yadavaji Trikamji Acharya, Nirnayasagar Press, Bombay 1938.
- 6 Kangale, R. P *The Kauṭilya Arthaśāstra*, 14.2.177 *Parbalaghātāprayoga, Ghātak-Dhūmayoga*, Vols I & II, Bombay University, Bombay 1963,
- 7 Ibid 16, 17 (*Madanayoga*).
- 8 Hains, H. H. *Flora of Bihar and Orissa*, Reprinted by Botanical Survey of India, Calcutta, 1961.
- 9 Field-Book Notes of Prof. R. S. Singh.

N.B.

Hāthikana, hātikan, hātkana seem to have been derived from *hastikarna. hastikarna* > *hatthi* <(hasti) + *karna* > *hathiken, hatiken (hatkan)*.

The Generic name 'Leea' is based on the name of the Scientist, who first gave its botanical name, and the specific name 'macrophylla' (Macros=big)—antonym of micro (Phylla=leaf) is given in allusion to its big size leaf in contrast to the smaller size of the plant.

- ¹⁰ 'Suhastita hastikarṇapunarṇave', *Hastikarṇa* described to be growing in the kitchen gardens of Vidarbha. The attribute *suhastita*=*kartalākārya* suggests this *hastikarṇa* to be 'Eraṇḍa' as its leaves are 'palmate=*karatalākāra*' in contrast to the leaf of *Leea macrophylla* which is not so.

Trivikrama Bhatt. *Nalacampu* (10th. cent A.D.) *Ucchwāsa* VI, p 193, Chowkhambha Sanskrit Sansthana, Varanasi—1, 1967.

- ¹¹ Indu on *Aṣṭāṅga Saṃgraha*. *Cikitsā-sthāna*, chapter 19, *Hastikarṇa*=*raktairandh*.
- ¹² *Hastikarṇapalāśasya patrāṇi cūrṇayedvara |*
Sarvarogavinirmuktaṃ cūrṇaṃ palāśataṃ śiva |I|
Sakṣīraṃ bhakṣitaṃ kuryatsaptāhena vṛṣadhavja |
Naraṇ śrutidharaṃ rudra mṛgendragati vikramaṃ |II|
Garuḍa Purāṇa, edited Ram Shankar Bhattacharya, ch. 187, p. 229 /
- ¹³ Vṛnda Mādhava with the commentary of Srīkaṇṭha, Chapter 69/15, Anandasram Press, Poona, 1943. *hastikarṇah*=*hastikarṇa-palāśah* (Srikantha).
- ¹⁴ *Cakradatta*, *Rasāyana Adhyāya*, with the *Tatvachandrikā*, commentary of Sivadasa Sen, Laxmi Venkateshwara Press, Bombay, 1959. *Hastikarṇah* (*Cakra*) *Hasti-karṇo* = *Hastikarṇapalāśamūlaṃ* (Sivadasa Sen).
- ¹⁵ Singh, R. S., *Market Drugs of India* (Unpublished).