



# Elements Of Indian Phytogeography Unlocked From The Epic Ramayana

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## Abstract:

The ancient Indian epic Ramayana is focused from the standpoint of phytogeography, hitherto neglected realm of scientific research. The present author unlocked certain elements of biodiversity from it. As many as 67 plant species belonging to 62 genera and 38 families of angiosperms and gymnosperms. These are further analysed on taxonomic ground. Secondly, certain elements of phytogeography of the then Indian landmass are also recorded. The aforesaid plant taxa have been clearly documented from these phytogeographic regions, mountains, rivers, hermitages of some sages, lakes, etc. This certainly suggests in-depth knowledge of sage Valmiki. He has keen eye for elements of Indian biodiversity and geography. It is for the first time phytogeographical aspect from the epic Ramayana is being limelighted.

**Keywords:** Epic Ramayana, Phytogeography, India.

## Introduction:

The epic Ramayana is originally authored by the sage Valmiki. Its period of composition has remained debatable. However, Balapur *et al.* (1987) stated the period before 300 BC. It contains 24000 verses in Sanskrit in seven books and 500 cantos (Sargas). These verses are enriched by the Sanskrit plant names and places or habitat of their distribution. The said epic has investigated on scientific footings (*cf.* Balapure *et al.*, 1987; Karnick, 1975; Patil, 2018, 2024). However, it is still not attempted to unlock the elements of Indian phytogeography embedded in it. The present is an attempt to shed more light on this aspect of science.

## Methodology:

The present author critically assessed the verses of the ancient epic Ramayana to obtain information regarding the elements of Indian phytogeography. The verses are embedded with the Sanskrit common plant names and as also the region, localities, mountains, rivers, lakes, etc. wherein the plant species are found or distributed. The plant names are equated with the recent botanical names (Latin binomial) and assigned to their respective families following Bentham and Hooker's system of plant classification (1862-1883). It is for this reason, the literary

sources tapped are those of Shastri (1957), (ii) Tulsidas (1966), and Anonymous (1960). The results obtained are discussed pertinently unlocking the elements of Indian phytogeography.

### Systematic Enumeration:

1.	<i>Semecarpus anacardium</i> L.f. (Anacardiaceae) Epic Name : Agnimukha Region : Matanga Hermitage Verse : 3.73.5
2.	<i>Alangium salvifolium</i> (L.f.) Wang. (Alangiaceae) Epic Name : Ankola Region : Pampa Lake Verse : 4.1.80
3.	<i>Terminalia cuneata</i> Roth (Combretaceae) [Syn. <i>T.arjuna</i> (Roxb.) Wight & Arn.] Epic Name : Arjuna Region : Pampa Lake Verse : 4.1.81
4.	<i>Saraca asoca</i> (Roxb.) de Wilde (Caesalpiniaceae) Epic Name : Ashoka Region : Pampa Lake, Agastya' Hermitage, Panchavati Matanga Hermitage Verse : 4.1.79; 3.11.71; 3.15.17; 3.73.4; 3.7.5
5.	<i>Vateria indica</i> L. (Dipterocarpaceae) Epic Name : Ashvakarna Region : Malada & Karusha Province, Panchavati Verse : 1.24.15; 3.15.18
6.	<i>Ficus religiosa</i> L. (Moraceae) Epic Name : Asvattha Region : Matanga Hermitage Verse : 3.73.3
7.	<i>Ziziphus mauritiana</i> Lamk. (Rhamnaceae) Epic Name : Badari Region : Malada, Karusha Verse : 1.24.16
8.	<i>Dendrocalamus strictus</i> (Roxb.) Nees (Poaceae) Epic Name : Bانشa Region : Panchavati

	Verse : 3.15.21
9.	<i>Aegle marmelos</i> (L.) Corr. (Rutaceae) Epic Name : Bilva Region : Pampa Lake, Agastya's Hermitage, Malada & Karusha Verse : 4.1.18; 3.1.74; 3.11.74; 3.24.15
10.	<i>Michelia champaca</i> L. (Magnoliaceae) Epic Name : Champaka Region : Pampa Lake, Panchavati Verse : 4.1.78; 3.15.17
11.	<i>Santalum album</i> L. (Santalaceae) Epic Name : Chandana Region : Pampa Lake, Panchavati Verse : 4.1.82; 3.15.18
12.	<i>Mangifera indica</i> L. (Anacardiaceae) Epic Name : Chuta Region : Pampa Lake, Panchavati, Matanga Hermitage Verse : 4.1.80; 3.15.17; 3.73.3
13.	<i>Cedrus deodara</i> (Roxb. ex Lamb.) G.Don (Pinaceae) Epic Name : Devadaru Region : Himalaya Verse : 4.43.13
14.	<i>Mimusops elengi</i> L. (Sapotaceae) Epic Name : Vakula Region : Surashka, Bahlika & Chandrachitra Provinces, Pampa Lake Verse : 4.1.78; 4.1.77; 4.42.7
15.	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guill & Perr. (Combretaceae) Epic Name : Dhava Region : Pampa Lake, Panchavati, Malada & Kapusha Verse : 4.1.81; 3.15.18; 1.24.15
16.	<i>Cycas circinalis</i> L. (Cycadaceae) Epic Name : Hintala Region : Pampa Lake Verse : 4.1.83
17.	<i>Syzygium cumini</i> (L.) Skeels (Myrtaceae) Epic Name : Jambu Region : Matanga Hermitage

	Verse : 3.73.3
18.	<i>Neolmerckia cadamba</i> (Roxb.) Bosser (Rubiaceae) Epic Name : Kadamba Region : Matanga Hermitage Verse : 3.73.4
19.	<i>Nerium indicum</i> Mill. (Apocynaceae) Epic Name : Karavira Region : Matanga Hermitage Verse : 3.73.4.
20.	<i>Saccharun spontaneum</i> L. (Poaceae) Epic Name : Kash Region : Panchavati Verse : 3.15.22
21.	<i>Pandanus odortissimus</i> L.f. (Pandaneaceae) Epic Name : Ketaka Region : Pampa Lake, Panchavati, Surashtra, Bahlika & Chandrachitra Province, Murachi, Jatapura, Avanti & Angalepa Cities Verse : 4.1.81; 4.42.7; 4.42.11; 3.15.17
22.	<i>Senegalia catechu</i> (L.f.) P.J.H. Hurter & Mabb. (Mimosaceae) [Syn.Acacia catechu (Roxb. et Rottl.) Willd.] Epic Name : Khadira Region : Panchavati Verse : 3.15.18
23.	<i>Phoenix dactylifera</i> L. (Arecaceae) Epic Name : Kharjura Region : Panchavati Verse : 3.15.16
24.	<i>Bambusa arundinacea</i> Willd. (Poaceae) Epic Name : Kichaka Venu Region : Sailoda river Verse : 4.43.37
25.	<i>Butea monosperma</i> (Lamk.) Taub. (Papilionaceae) Epic Name : Kimshuka Region : Pampa Lake, Panchavati Verse : 4.1.75; 4.1.82; 3.15.18
26.	<i>Bauhinia variegata</i> L. (Caesalpinaceae) Epic Name : Kovidara

	Region : Pampa Lake Verse : 4.1.80
27.	<i>Terminalia cuneata</i> Roth (Combretaceae) [Syn.T.arjuna (Roxb.) Wight & Arn.] Epic Name : Kukubha Region : Malada & Karusha Verse : 1.24.15
28.	<i>Barleria prionitis</i> L. (Acanthaceae) Epic Name : Kurantaka Region : Pampa Lake Verse : 4.1.80
29.	<i>Lawsonia inermis</i> L. (Lythraceae) Epic Name : Kurvaka Region : Pampa Lake Verse : 4.1.82
30.	<i>Desmostachya bipinnata</i> (L.) Stapf (Poaceae) Epic Name : Kusha Region : Panchavati Verse : 3.15.22
31.	<i>Ceiba pentandra</i> (L.) Gaertn. (Bombacaceae) Epic Name : Kut-Shalmali Region : Jambu Dvip (Eastern Side) Verse : 4.40.39
32.	<i>Artocarpus lakucha</i> Roxb. (Moraceae) Epic Name : Lakuch Region : Panchavati Verse : 3.15.18
33.	<i>Symplocos racemosa</i> Roxb. (Symplocaceae) Epic Name : Lodhra Region : Pampa Lake, Himalayas Verse : 4.1.79; 4.43.13
34.	<i>Hiptage benghalensis</i> (L.) Kurz (Malpighiaceae) Epic Name : Madhavi Region : Pampa Lake Verse : 4.1.77
35.	<i>Madhuca indica</i> J.F. Gmel. (Sapotaceae)

	<p>Epic Name : Madhuka  Region : Agastya's Hermitage, Pampa Lake  Verse : 3.11.74; 4.1.18</p>
36.	<p><i>Jasminum sambac</i> (L.) Ait. (Oleaceae)  Epic Name : Malati  Region : Pampa Lake  Verse : 4.1.76</p>
37.	<p><i>Jasminum officinale</i> var. <i>grandiflorum</i> (L.) Bailey (Oleaceae)  Epic Name : Mallika  Region : Pampa Lake  Verse : 4.1.76</p>
38.	<p><i>Pterospermum acerifolium</i> Willd. (Sterculiaceae)  Epic Name : Muchkunda  Region : Pampa Lake  Verse : 4.1.81</p>
39.	<p><i>Mesua ferrea</i> L. (Clusiaceae)  Epic Name : Nag  Region : Pampa Lake, Matanga Hermitage  Verse : 4.1.78; 4.1.83; 3.73.4</p>
40.	<p><i>Pongamia pinnata</i> (L.) Pierre (Papilionaceae)  Epic Name : Naktamal  Region : Pampa Lake, Matanga Hermitage  Verse : 4.1.82; 3.74.4</p>
41.	<p><i>Cocos nucifera</i> L. (Arecaceae)  Epic Name : Narikela  Region : Murachi-Jatapura, Avanti &amp; Angalepa Cities  Verse : 4.42.11</p>
42.	<p><i>Ficus benghalensis</i> L. (Moraceae)  Epic Name : Nyagrodha  Region : Pampa Lake, Matanga Hermitage  Verse : 4.1.79; 3.73.4</p>
43.	<p><i>Barringtonia racemosa</i> (L.) Spreng. (Lecythidaceae)  Epic Name : Nip  Region : Panchavati  Verse : 3.15.18</p>
44.	<p><i>Nelumbo nucifera</i> Gaertn. (Nelumbonaceae)</p>

	<p>Epic Name : Padma  Region : Pampa Lake  Verse : 4.1.76</p>
45.	<p><i>Prunus cerasoides</i> D.Don (Rosaceae)  Epic Name : Padmaka  Region : Pampa Lake, Himalayas  Verse : 4.1.79; 4.43.13</p>
46.	<p><i>Artocarpus heterophyllus</i> Lamk. (Moraceae)  Epic Name : Panasa  Region : Matanga Hermitage  Verse : 3.743.3</p>
47.	<p><i>Erythrina variegata</i> L. (Papilionaceae)  Epic Name : Paribhadra  Region : Pampa Lake  Verse : 4.1.80</p>
48.	<p><i>Ocimum tenuiflorum</i> L. (Lamiaceae)  (Syn. <i>O. sanctum</i> L.)  Epic Name : Parnasa  Region : Panchavati  Verse : 3.15.18</p>
49.	<p><i>Stereospermum suaveolens</i> (Roxb.) DC. (Bignoniaceae)  Epic Name : Patala  Region : Pampa Lake, Panchavati, Malada &amp; Karusha  Verse : 4.1.80; 3.15.18; 1.24.15</p>
50.	<p><i>Piper longum</i> L. (Piperaceae)  Epic Name : Pippali  Region : Agastya's Hermitage  Verse : 3.11.74</p>
51.	<p><i>Ficus lacor</i> Buch.-Ham. (Moraceae)  Epic Name : Plaksa  Region : Matanga Hermitage  Verse : 3.73.3</p>
52.	<p><i>Buchanania lanzan</i> Spreng. (Anacardiaceae)  Epic Name : Priyal  Region : Matanga Hermitage  Verse : 3.73.3.</p>

53.	<i>Calophyllum inophyllum</i> L. (Clusiaceae) Epic Name : Punnaga Region : Panchavati, Surashtra, Bahlika & Chandrachitra Province Verse : 3.15.16; 4.42.7
54.	<i>Rubia cordifolia</i> L. (Rubiaceae) Epic Name : Rakta Region : Pampa Lake Verse : 4.1.82
55.	<i>Bombax ceiba</i> L. (Bombacaceae) Epic Name : Shalmali Region : Pampa Lake Verse : 4.1.82
56.	<i>Prosopis cineraria</i> (L.) Druce (Mimosaceae) Epic Name : Shami Region : Panchavati Verse : 3.15.18; 3.15.22
57.	<i>Dalbergia sissoo</i> Roxb. ex DC. (Papilionaceae) Epic Name : Shimshipa Region : Pampa Lake Verse : 4.1.81
58.	<i>Vitex negundo</i> L. (Verbenaceae) Epic Name : Sinduvara Region : Pampa Lake Verse : 4.1.77
59.	<i>Albizia lebbek</i> (L.) Willd. (Mimosaceae) Epic Name : Shirish Region : Pampa Lake Verse : 4.1.81
60.	<i>Clitoria ternatea</i> L. (Papilionaceae) Epic Name : Supuspi Region : Pampa Lake Verse : 4.1.77
61.	<i>Pterocarpus santalinus</i> L.f. (Papilionaceae) Epic Name : Surakta Region : Matanga Hermitage Verse : 3.73.5

62.	<i>Lagerstroemia speciosa</i> (L.) Pers. (Lythraceae) Epic Name : Syandan Region : Pampa Lake, Panchavati Verse : 4.1.82; 3.15.18
63.	<i>Borassus flabellifer</i> L. (Arecaceae) Epic Name : Tala Region : Panchavati, Udaya mountain, Mount Meru to Mount Astaadhri Verse : 3.15.16; 4.40.53/56; 4.42.46
64.	<i>Garcinia xanthochymus</i> Hook. f. ex T. Anderson (Clasiaceae) Epic Name : Tamala Region : Udaya Mountain, Murachi, Jatapura, Avanti & Angalepa Cities Verse : 4.40.56; 4.42.11
65.	<i>Diospyros melanoxylon</i> Roxb. (Ebenaceae) Epic Name : Tinduka Region : Malada & Karush, Matanga Hermitage Verse : 1.24.15; 3.73.3
66.	<i>Ougeinia oojeinensis</i> (Roxb.) Hochr. (Papilionaceae) Epic Name : Tinisha Region : Pampa Lake Verse : 4.1.82
67.	<i>Cordia dichotoma</i> Forst. f. (Boraginaceae) Epic Name : Uddalaka Region : Surashtra, Bahlika & Chadrachitra Provinces Verse : 4.42.7

### Results And Discussion:

Indian epics viz., Ramayana and Mahabharata have proved as evidences of knowledge and culture of the ancient past. These sources are heritage of India and need to be unfolded on various grounds. These have been studied by researchers as stated earlier on scientific bases also. However, still there is scope for investigation on some grounds, for example, Indian phytogeography. The present author made an attempt to study the elements on this line of research which are being projected in clearer focus.

At the outset, it appears plausible to know the elements of biodiversity interwoven with the Sanskrit verses of Ramayana for the present consideration. A total of 67 plant species mentioned from various regions of the then India are revealed. They are angiospermic (57 dicotyledons, 08 monocotyledons) and gymnospermic (02 species). These are pertain to total 62 genera (52 dicotyledons, 08 monocotyledons and 02 gymnosperms) and total 38 families (33 dicotyledons, 03 monocotyledons and 02 gymnosperms).

The aforesaid plant species have been earmarked from certain geographical elements e.g. Matanga hermitage, Pampa lake, Agastya's hermitage, Panchavati, Malada and Karush provinces, Himalayas, Surashtra, Bahlika and Chandrachitra Provinces, Murachi, Jatapura, Avati and Angalepa cities, Sailoda river, Jambu Dvip (Eastern Side), Udaya mountain and Mount Meru to Mount Astaadhri. All these localities are geographical elements are correlated with specific plant species in this epic. It is not a conjectural work. The sage Valmiki appeared well versed with the elements of biodiversity and as also with geographical elements of the then Indian landmass. However, their names are old ones, only few of them are in vogue presently. The sage Valmiki has undoubtedly in-depth knowledge about the plant-world and various geographical regions, rivers, mountains, residences of some sages, etc. These are also indicative of plant habitats. This study add one more aspect of epic Ramayan.

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