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## Ecology, distribution mapping, Vedic nomenclature and conservation implications of Genus *Artemisia* (Asteraceae) in India

**Acharya Balkrishna, Amita Singh, Bhasker Joshi, Rajesh Kumar Mishra, Rama Shankar, Priyanka Tyagi and Anupam Srivastava**

**Abstract**

The present paper deals on taxonomic status of ca. 76 species (58 species and 18 infraspecific taxon) of genus *Artemisia* L. in India. The genus displays a huge ecological plasticity, with species occurring from slopes, river banks, roadsides, valleys, canyons, forest margins. The maximum diversity of the species lies in the Western Himalayan region to North Eastern Himalayan region. They are widely occurring in the provinces like Assam, Himachal Pradesh, Jammu & Kashmir, Meghalaya, Tamil Nadu (Nilgiri hills), Uttarakhand which have very rich species diversity of *Artemisia*. Phyto etymology and Vedic nomenclature of these plants, helps to make a bonding between human and plant through their known word root, which conserve the medicinal flora and identifies the plants of this region. Conservation status of all plants also mentioned in the paper.

**Keywords:** *Artemisia*, conservation, distribution, India, phyto etymology, Vedic nomenclature

**Introduction**

The genus *Artemisia* is the member of the order Asterales, family Asteraceae and tribe Anthemideae. The name *Artemisia* derives from the Greek goddess Artemis (Roman Diana), the namesake of Greek Queens *Artemisia* I and II<sup>[1, 2]</sup>. The genus consisting of ca. 475 species with its native range to Middle East region of Asia, North to South Africa, Northern and Southern America and European countries<sup>[3, 4]</sup>. In India ca. 76 plants (58 species and 18 varieties) are widely distributed in Himachal Pradesh, Jammu & Kashmir, Tamil Nadu (Nilgiri hills) and Uttarakhand<sup>[5, 6, 7, 8, 9, 10]</sup>. Hooker (1881) reported 27 species of *Artemisia* in Flora of British India into 4 sections as *Dracunculus*, *Seriphidium*, *Abortanum*, *Absinthium*<sup>[5]</sup>. Dhar & Kachroo (1983) reported 29 species from Kashmir Himalaya<sup>[11]</sup>. Therefore, as of now the genus *Artemisia* is studied in North-West Himalaya with particular reference to Kashmir and deals with 20 species where as two new species *Artemisia roxburghiana* Wall. ex Besser and *Artemisia parviflora* Roxb. ex D. Don are described<sup>[6]</sup>. On the basis of morphological characters Hajra *et al.* (1995) categorized Indian *Artemisia* into 32 species and 9 excludes species were summarised including 2 varieties in *A. dubia*, *A. elegantissima*, *A. incise*, *A. indica*, *A. maritime*, *A. myriantha*, *A. nilagarica*, *A. salsonoides*, *A. stricta*, *A. strongocephala*, 3 varieties in *A. gmelinii*, and 4 varieties in *A. roxburghiana*. Besides these varieties, 2 formas in each of *A. nilagarica*, *A. salsonoides*, *A. stricta* and *A. wallichiana* have been classified in Flora of British India<sup>[7]</sup>. Uniyal *et al.* (2007) included ca. 38 species of the genus from Uttarakhand<sup>[8]</sup>. Later on, Karthikeyan *et al.* (2009) reported 47 species of *Artemisia* distributed throughout India<sup>[9]</sup>. Recently Singh *et al.* (2019) reported 39 species and 12 varieties in Indian Himalayan region<sup>[10]</sup>.

Plants of this genus are commonly known as Wormwood, Sagebrush, Mugwort. The name 'Wormwood' comes from the use of some species in medieval times to treat intestinal worms<sup>[12]</sup>. *Artemisia* is characterized by a wide range of morphological and phytochemical variability<sup>[13]</sup>. Herbs, annual or perennial, subshrubs, or shrubs, usually strongly and pleasantly aromatic. Stems usually erect, branched, glabrous or hairy. Leaves basal or basal and cauline, alternate, pinnate, rarely palmately divided or entire. Synflorescences racemose, sometimes spicate, usually grouped into panicles; capitula usually many, often second, usually small, shortly pedunculate to sessile, heterogamous, disciform. Involucres campanulate, globose, ovoid, or turbinate. Receptacle convex or flat, epaleate, glabrous or pubescent.

Marginal florets in 1(or 2) series, 3-10 or more, female; corolla tubular, rarely vasiform, cup-shaped, or conical, apex 2(-4)-toothed; style exerted, apex acute. Disk florets several to many, in 2 or more series, male or bisexual; corolla tubular, apex 5-toothed. Anthers with 2 obtuse basal appendages, apical appendage acute, triangular. Style as long as or longer than corolla, divergent, and with a truncate or folding and pedunculate apex, or sometimes shorter than corolla, not divergent, apex clavate or funnellform. Achenes obovoid, ovoid, or oblong, faintly striate. Corona absent or minute [14, 15].

*Artemisia*, as an anthelmintic and a stomachic, were long in use amongst the Greeks and the Romans. The Persian and Arab physicians also employed them for the same purpose. Some *Artemisia* are of high medicinal interest and a few are prized for their volatile oils. Some species of genus *Artemisia* have strong and aromatic smell in their leaves and flowers due to volatile terpenes present in the constituents of their essential oils. *Artemisia* also valued for ornamental, culinary and insect-repelling purposes [13, 16]. Some *Artemisia* are of high medicinal interest and a few are prized for their volatile oils. The strong and aromatic smell of some species of genus is due mainly to high concentrations of volatile terpenes, constituents of their essential oils, especially in leaves and flowers. Various species have long been cultivated as ornamentals for their silvery foliage. Many other species have been used as spices and flavourings. Because the genus is mainly wind-pollinated, some species. *Artemisia* are also valued for ornamental, culinary and insect-repelling purposes. The aromatic leaves of various species of *Artemisia* are medicinal, such as *Artemisia Absinthium* L., which is used medicinally as a tonic, stomachic, febrifuge and anthelmintic. Some *Artemisia* species are valued for culinary purposes, although most have an extremely bitter taste. Absinth or common wormwood, *A. Absinthium*, in addition to the above-mentioned medicinal purposes, is used in brewing wormwood beer and in such beverages as vermouth and absinthe. *Artemisia* species, widespread throughout the world, are one of the most popular plants in Chinese traditional preparations and are frequently used for the treatment of disorders such as malaria, hepatitis, cancer, inflammation and infections by fungi, bacteria and viruses [15].

This genus is being overexploited due to the rising demands of the pharmaceutical industry and other anthropogenic activities because it is a source of many bioactive chemicals. Since some species of this genus is threatened with extinction, substantial steps should be done to ensure its survival. The biodiversity of this genus will be lost as a result of highly anthropogenic activities. Early studies also indicate that *Artemisia* species cannot be propagated using traditional methods due to their tiny seeds, which require a symbiotic relationship with microflora in order to germinate. While *in vitro* culture preserves the therapeutic characteristics of *Artemisia*, seasonal fluctuations, environmental pollution, fungal and bacterial infection affect them. Among all the species, *A. Absinthium*, *A. vulgaris*, and *A. annua* took much attention of the scientists due to their medicinal properties [12, 17].

#### Materials and methods:

For present study, the taxonomic position of genus *Artemisia* in India was studied on the basis of literary work as per Flora of British India (Hooker, 1881), Flora of India (Hajra *et al.*, 1995), Flowering Plants of India (Karthikeyan *et al.*, 2009), *Plants of Indian Himalayan Region* (Singh *et al.*, 2019), etc.,

and peer reviewed research papers from Google Scholar, Science Direct, Pub Med and also from various taxonomic websites like Plants of the World Online, The Plant List, IPNI, GBIF, BHL, efloras, etc. All plants were critically examined on the basis of their morphological characters and a checklist was prepared along with their systematic enumerations, Vedic name [15, 19] and phytoetymology [18] (Balkrishana, 2022a,b) flowering and fruiting time, ecological notes, IUCN status [20] and along with their distribution.

#### Systematic enumerations

**1. *Artemisia abrotanum* L.**, Sp. Pl. 845. 1753; Karthik. *et al.*, Fl. Pl. India 1: 192. 2009. Southernwood (Eng.)

**Vedic name:** Devājyakaḥ pīnamūlah [15, 19]

**Fl. & Fr.:** June-September

**Ecology & Distribution:** It is found on dry to medium moisture, well-drained soils in full sun, neutral soil, waste places, roadsides, semi-evergreen in frost-free winter climates, at an elevation up to 3000 m. It is native to Nilgiri hills (Tamil Nadu).

**Epithet:** Greek word *abrotanum* means 'divine, ancient name for southernwood' [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**2. *Artemisia Absinthium* L.**, Sp. Pl. 848. 1753; Hook.f., Fl. Brit. India 3: 328. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 11. 1995; Karthik. *et al.*, Fl. Pl. India 1: 192. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Absinth, Madderwort (Eng.)

**Vedic name:** Devājyakaḥ musalakāṇḍaḥ [15, 19]

**Fl. & Fr.:** July-September

**Ecology & Distribution:** It prefers to grow on uncultivated, arid ground, on rocky slopes and at the edge of footpaths and fields, mountains, in moist, sandy-clay soils, at an elevation ranging from 1000-4000 m. It is distributed in Western Himalayan region.

**Epithet:** Latin word *Absinthium* means 'wormwood' [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**3. *Artemisia amygdalina* Decne.**, Voy. Inde 4 (Bot.): 92. 1843; Hook F., Fl. Brit. India 3: 325. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 13. 1995; Karthik. *et al.*, Fl. Pl. India 1: 192. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Almond wormwood (Eng.)

**Vedic name:** Devājyakaḥ khañcikāṇḍaḥ [15, 19]

**Fl. & Fr.:** August-September

**Ecology & Distribution:** It is found on sandy moist soil along the foot hills in almost open sub-alpine area, at an elevation ranging from 2500-2800 m. It is native and endemic to India (Kashmir) and West Himalayan region.

**Epithet:** Greek word *amygdalina* means 'almond-like, kernel-

like, of almonds' [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**4. *Artemisia annua* L., Sp. Pl. 847. 1753; Hook F., Fl. Brit. India 3: 323. 1881; Karthik. *et al.*, Fl. Pl. India 1: 192. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. *A. stewartii* C.B. Clarke in Compos. Ind. 162. 1876. Sweet wormwood (Eng.)**

**Vedic name:** Devājyakaḥ bindupatraḥ [15, 19]

**Fl. & Fr.:** August-October

**Ecology & Distribution:** It is found on hills, waysides, wastelands, outer forest margins, forest steppes, dry floodlands, terraces, semidesert steppes, rocky slopes, roadsides, saline soils, at an elevation ranging from 2000-3700 m. It is native to Western Himalayan region.

**Epithet:** Latin word *annua* means 'annual or yearly' [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**5. *Artemisia austrohimalayaensis* Y.R. Ling & Puri, Bull. Bot. Res., Harbin 8(3): 7. 1988; B.D. Naithani in Hajra *et al.*, Fl. India 12: 13. 1995 Karthik. *et al.*, Fl. Pl. India 1: 192. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. *A. tenuifolia* Y.R. Ling & Puri in Guihaia 5: 2. 1985. *A. austrohimalayana* Y.R. Ling & Puri in Guihaia 8: 64. 1988.**

**Vedic name:** Devājyakaḥ kargadapatraḥ [15, 19]

**Fl. & Fr.:** September

**Ecology & Distribution:** It prefers to grow in rocky slopes at an elevation ranging from 4000 m. It is native to West Himalaya and widely distributed in Himachal Pradesh and Uttarakhand.

**Epithet:** Latin words *austro* means 'south' and *himalayaensis* means 'Himalaya Mountain range' [18].

The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**6. *Artemisia austroyunnanensis***

Ling & Y.R. Ling in Bull. Bot. Res., Harbin 4(2): 20. 1984; B.D. Naithani in Hajra *et al.*, Fl. India 12: 46. 1995; Karthik, *et al.*, Fl. Pl. India 1: 192. 2009.

**Vedic name:** Devājyakaḥ prāyataikīnaḥ [15, 19]

**Fl. & Fr.:** September- December or March

**Ecology & Distribution:** Plant is found in grasslands, slopes, shrublands, forest margins, canyons at an elevation ranging from 800-2300 m. It is native to Northern East India.

**Epithet:** Based on Southern Yunnan [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**7. *Artemisia banihalensis* M.K. Kaul & S.K. Bakshi in Folia Geobot. Phytotax. 19(3): 308. 1984.**

**Vedic name:** Devājyakaḥ vṛṇṭākakāṇḍaḥ [15, 19]

**Ecology & Distribution:** It is native and widely distributed in Lower Munda, Banihall, Kashmir.

**Epithet:** Based on Banihal Tunnel, Jammu & Kashmir, India [18].

The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**8. *Artemisia biennis* Willd., Phytographia 1: 11. 1794; Hook.f., Fl. Brit. India 3: 324. 1881; B.D. Naithani in Hajra *et al.*, Fl. India 12: 14. 1995; Karthik. *et al.*, Fl. Pl. India 1: 192. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Biennial wormwood (Eng.).**

**Vedic name:** Devājyakaḥ granthikāṇḍaḥ [15, 19]

**Fl. & Fr.:** July-September

**Ecology & Distribution:** It prefers to grow near lakes, shores, water stream banks, ditches, mud flats in very sandy soils, at an elevation ranging from between 4000-5000 m. It is native to Western and Eastern Himalayas and widely distributed in Himachal Pradesh, Jammu & Kashmir, Sikkim and Uttarakhand.

**Epithet:** Latin word *biennis* means '(with a life) of two years, biennial' [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**9. *Artemisia borealisiamensis* Y.R. Ling & Humphries in Acta Bot. Austro Sin. 4: 33. 1989; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019.**

**Vedic name:** Devājyakaḥ avasitaḥ [15, 19]

**Ecology & Distribution:** It prefers to grow in grasslands at an elevation ranging from 1500-3000 m. It is widely distributed in Himachal Pradesh, Jammu & Kashmir, Uttarakhand.

The plant has not yet been assessed for the IUCN Red list version 2022-1.

**10. *Artemisia campbellii* Hook F. & Thomson ex C.B. Clarke, Compos. Ind. 164. 1876; Hook F., Fl. Brit. India 3: 327. 1881; B.D. Naithani in Hajra *et al.*, Fl. India 12: 14. 1995; Karthik. *et al.*, Fl. Pl. India 1: 192. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Campbell's Artemisia (Eng.)**

**Vedic name:** Devājyakaḥ avṛṇṭotpatraḥ [15, 19]

**Fl. & Fr.:** July- November

**Ecology & Distribution:** It prefers to grow in dry slopes, shrublands, rocky slopes, dunes, sandlot, lowland, and pasture land, at an elevation ranging from 1500-6000 m. It is native to East Himalaya, Nepal, Tibet and West Himalaya.

**Epithet:** Honour of Mr. (Dr.) Archibald Campbell (1805-1874) [18].

The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**11. *Artemisia capillaris* Thunb., Nova Acta Regiae Soc. Sci. Upsal., ser. 2, 3: 209. 1780; Hook F., Fl. Brit. India 3: 323.**

1881; B.D. Naithani in Hajra, *et al.*, Fl. India 12: 16. 1995; Karthik. *et al.*, Fl. Pl. India 1: 192. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Fragrant wormwood (Eng.)

**Vedic name:** Devājyakaḥ tantukhaṇḍaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-December

**Ecology & Distribution:** It prefers to grow in grassy thickets and along rivers and seashores, humid slopes, hills, terraces, roadsides and river banks at an elevations ranging from 1000-2700 m. It is found in Indo-Gangetic Plain and West Himalayan region between 1500-3500 m. and widely distributed in Jammu & Kashmir, Himachal Pradesh, Punjab, Uttarakhand and Uttar Pradesh.

**Epithet:** Latin word *capillaris* means 'hair-like, very slender' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**12. *Artemisia caruifolia*** Buch. -Ham. ex Roxb., Fl. Ind. ed. 1832, 3: 422. 1832; Hook F., Fl. Brit. India 3: 324. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 16. 1995; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Cut-leaved Artemisia (Eng.)

**Vedic name:** Devājyakaḥ tigmapatraḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** March- April

**Ecology & Distribution:** It prefers to grow in woodland, in sandy and loamy soils. It requires dry or moist soil and can tolerate drought. It is native to tropical Asia including India and Nepal and in India distributed in Gangetic plain, west Bengal and Assam.

**Epithet:** Having leaves like the genus *Carum* <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**13. *Artemisia cashemirica*** M.K. Kaul & S.K. Bakshi in Folia Geobot. Phytotax. 19(3): 313. 1984. Indian mugwort (Eng.)

**Vedic name:** Devājyakaḥ sitoraṇakaḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It is native and thoroughly distributed in India but seen to be very common at lower altitudes (1500 m) as well.

**Epithet:** Based on Kashmir, India <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**14. *Artemisia demissa*** Krasch., Trudy Bot. Inst. Akad. Nauk S.S.S.R., Ser. 1, Fl. Sist. Vyssh. Rast. 3: 348. 1937; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009.

**Vedic name:** Devājyakaḥ rekhapatrāṁśaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July- September

**Ecology & Distribution:** It prefers to grow at an elevations ranging from 1000-1500 m. It is native to central Himalayan region.

**Epithet:** Latin word *demissa* means 'hanging down, low, weak, dwarf' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**15. *Artemisia desertorum*** Spreng., Syst. Veg. 3: 490 (1826); Hook F., Fl. Brit. India 3: 321. 1881; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Desert Madwort (Eng.)

**Vedic name:** Devājyakaḥ bahumuṇḍaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August- October

**Ecology & Distribution:** It prefers to grow in steppes, meadows, forest steppes, alpine and subalpine steppes, waste areas, rocky slopes, dry valleys, riverbanks, forest margins, roadsides, grasslands, in shrubs at low elevations to 4600 m. It is native to East and West Himalayan region.

**Epithet:** Latin word *desertorum* means 'of deserts' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**16. *Artemisia desertorum* var. *foetida*** (Jacquem. ex DC.) Ling & Y.R. Ling in Bull. Bot. Res., Harbin 8(4): 55. 1988; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. *A. foetida* Jacquem. ex DC., Prodr.6: 98. 1838.

**Vedic name:** Devājyakaḥ guccihlaḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It prefers to grow in alpine meadows, grasslands, gravelly slopes, in shrubs at elevations to 3500-4200 m. It is native to West Himalayan.

**Epithet:** Latin word *foetida* means 'stinking, foetid' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**17. *Artemisia Dracunculus*** L., Sp. Pl. 849. 1753; Hook F., Fl. Brit. India 3: 321. 1881; B.D.Naithani in Hajra, *et al.*, Fl. India 12: 18. 1995; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Little Dragon, Tarragon (Eng.)

**Vedic name:** Devājyakaḥ abhaktapatraḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-October

**Ecology & Distribution:** It prefers to grow on dry, open sites in plains, foothills and montane zones. It is widely distributed in west Himalayan Region between 2300-3500 m and Jammu & Kashmir, Himachal Pradesh.

**Epithet:** Latin word *Dracunculus*, a diminutive of *draco* means 'small serpent, a thread twisted like a serpent' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**18. *Artemisia Dracunculus* var. *pamirica*** (C. Winkl.) Y.R. Ling & Humphries in Bull. Bot. Res., Harbin 8(4): 45. 1988; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009. *A. pamirica* C. Winkl. in Trudy Imp. S.-Peterburgsk. Bot. Sada 11: 329.

1890; B.D.Naithani in Hajra *et al.*, Fl. India 12: 47. 1995. Tarragon (Eng.)

**Vedic name:** Devājyakaḥ rekhībhallāḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It prefers to grow on rocky slopes, meadow steppes and at an elevation of 3000-3400 m. It is the native of West Himalaya.

**Epithet:** Based on Pamir Mountains, Tajikistan, former Soviet Union <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**19. *Artemisia dubia*** Wall. ex Besser in Nouv. Mém. Soc. Imp. Naturalistes Moscou 3: 39. 1834; B.D.Naithani in Hajra *et al.*, Fl. India 12: 19. 1995; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. Chamra (Eng.)

**Vedic name:** Devājyakaḥ granthinālah <sup>[15, 19]</sup>

**Fl. & Fr.:** June- August

**Ecology & Distribution:** It prefers to grow on slopes, riverbanks, roadsides, valleys, canyons, forest margins at an elevation up to 3000 m. Its native range is from Mongolia to Himalayan region.

**Epithet:** Latin word *dubia* means 'uncertain, doubtful' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**20. *Artemisia dubia* var. *subdigitata*** (Mattf.) Y.R. Ling in Kew Bull. 42: 445. 1987; B.D.Naithani in Hajra *et al.*, Fl. India 12: 19. 1995; Karthik. *et al.*, Fl. Pl. India 1: 193. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 100. 2019. *A. subdigitata* Mattf. in Repert. Spec. Nov. Regni Veg. 22: 243. 1926.

**Vedic name:** Devājyakaḥ aromapatraḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It prefers to grow on slopes, riverbanks, roadsides, valleys, canyons, forest margins at an elevations up to 3000 m. It is native to East and West Himalayan region.

**Epithet:** Latin words *sub* means 'under, below, lower' and *digitata* means 'finger' <sup>[18]</sup>.

The plant is medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**21. *Artemisia eriocephala*** Pamp. in Nuovo Giorn. Bot. Ital., ser. 2, 33: 454 .1926; B.D. Naithani in Hajra *et al.*, Fl. India 12: 22. 1995; Karthik. *et al.*, Fl. Pl. India 1: 194. 2009. Woolly Head Artemisia (Eng.)

**Vedic name:** Devājyakaḥ ūrnamuṇḍaḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It prefers to grow on slopes, riverbanks, roadsides, valleys, canyons, forest margins at an elevations up to 3500 m. It is a native to West Himalaya, which is widely distributed in Uttarakhand.

**Epithet:** Greek word *eriocephala* means 'woolly headed (with a woolly fruiting head)' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**22. *Artemisia filiformilobulata*** Y.R. Ling & Puri in Guihaia 5: 1. 1985; B.D.Naithani in Hajra *et al.*, Fl. India 12: 21. 1995; Karthik. *et al.*, Fl. Pl. India 1: 194. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. Filiform Leaves Artemisia (Eng.)

**Vedic name:** Devājyakaḥ śītatala <sup>[15, 19]</sup>

**Fl. & Fr.:** September

**Ecology & Distribution:** It prefers to grow on rocky slopes and riverbanks, at an elevations up to 5000 m. It is native to West Himalayas and distributed in Himachal Pradesh, Uttar Pradesh and Uttarakhand (Gangotri).

**Epithet:** Latin words *filiformi* means 'thread like' and *lobulata* means 'lobe-shaped' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**23. *Artemisia glauca*** Pall. ex Willd., Sp. Pl., ed. 4, 3: 1831 (1803); Hook F., Fl. Brit. India 3: 322. 1881. Fuzzy weed (Eng.)

**Vedic name:** Devājyakaḥ babhrub̄jāḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It prefers to grow in barren sandy soils as weed in uncultivated areas such as waste places and roadsides at the elevation up to 326 m. It is native to West Himalayan region.

**Epithet:** Latin word *glauca* means 'developing a fine whitish bloom, bluish-green, seagreen' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**24. *Artemisia gmelinii*** Weber ex Stechm. in Artemis. 17, 30. 1775; B.D.Naithani in Hajra *et al.*, Fl. India 12: 23. 1995; Karthik. *et al.*, Fl. Pl. India 1: 194. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. Gmelin's wormwood (Eng.)

**Vedic name:** Devājyakaḥ kāṣṭhakāṇḍaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July- October

**Ecology & Distribution:** It prefers to grow on rocky slopes from coast to mountains, dry stony slopes, shrub lands, often dominant on Southern slopes, roadsides, forest steppes, meadows, dry flood lands, wastelands, at an elevation up to 4900 m. It is native to Central Asia to Western Himalayan region.

**Epithet:** Honour of botanist, naturalist and author, Samuel Gottlieb Gmelin (1745-1774) <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**25. *Artemisia gmelinii* var. *minor*** (Ledeb.) B.D.Naithani in Hajra *et al.*, Fl. India 12: 24. 1995. *A. sacrorum* var. *minor* Ledeb., Fl. Altaic. 4: 72. 1833. *A. sacrorum* Ledeb. in Mém. Acad. Imp. Sci. St. Pétersbourg Hist. Acad. 5: 571. 1815; Hook. F., Fl. Brit. India 3: 326. 1881. Russian Wormwood

(Eng.)

**Vedic name:** Devājyakaḥ rekhāyataḥ <sup>[15, 19]</sup>**Fl. & Fr.:** July-September**Ecology & Distribution:** It prefers to grow in hills, waysides, shrublands, slopes, roadsides and forest steppe, at an elevations of 4500-5000m. It is commonly found in West Himalayan region and in Jammu & Kashmir, Himachal Pradesh and Uttarakhand region.**Epithet:** Latin word minor means 'smaller, lesser' <sup>[18]</sup>. The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**26. *Artemisia grandis*** Pamp. in Nuovo Giorn. Bot. Ital., N.S., 34: 632. 1927; B.D.Naithani in Hajra *et al.*, Fl. India 12: 47. 1995; Karthik. *et al.*, Fl. Pl. India 1: 194. 2009. Large Sized Artemisia (Eng.)**Ecology & Distribution:** It prefers to grow in hills, waysides, shrublands, slopes, roadsides from low to middle elevation. It is native to Western Himalayan region.**Epithet:** Latin word grandis means 'large, powerful, full-grown, showy, big or grandly, greatly' <sup>[18]</sup>. The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**27. *Artemisia hedinii*** Ostenf. in S. Tibet 6(3): 41. 1922; Karthik. *et al.*, Fl. Pl. India 1: 194. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019.**Vedic name:** Devājyakaḥ vṛntākadalaḥ <sup>[15, 19]</sup>**Fl. & Fr.:** July- October**Ecology & Distribution:** It prefers to grow in grassy marshlands, floodlands, rocky slopes, waysides and outer forest margins at an elevation ranging from 1000-5000 m. It is native to Kashmir, Ladakh and East Himalayan region.**Epithet:** In the honour of plant collector, Dr. Sven Hedin <sup>[18]</sup>. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**28. *Artemisia imponens*** Pamp. in Nuovo Giorn. Bot. Ital., ser. 2, 36: 424. 1930. *A. moorcroftiana* Wall., Numer. List. 406. 1828; Hook. F., Fl. Brit. India 3: 327. 1881; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019.**Vedic name:** Devājyakaḥ pakṣapṛākṣaḥ <sup>[15, 19]</sup>**Ecology & Distribution:** Plant is found in slopes, terraces, valleys, rocky hills, subalpine steppes and meadows at an elevation ranging from 2000-5300 m. It is native of China and Tibet.**Epithet:** Latin word *imponens* means 'deceptive, cheating' <sup>[18]</sup>. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**29. *Artemisia incisa*** Pamp. in Nuovo Giorn. Bot. Ital., ser. 2, 33: 456 (1926); B.D.Naithani in Hajra *et al.*, Fl. India 12: 24.1995; Karthik. *et al.*, Fl. Pl. India 1: 194. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. Incised leaf Artemisia (Eng.)**Vedic name:** Devājyakaḥ pravṛttparicakraḥ <sup>[15, 19]</sup>**Fl. & Fr.:** July- August.**Ecology & Distribution:** It prefers to grow on field borders in silty-clay moist or wet soils at an elevation of 1500 and 3000 m. It is native to West Himalaya, widely distributed in Hindu Kush, Himachal Pradesh.**Epithet:** Latin word *incisa* means 'sharply and deeply cut into, incised' <sup>[18]</sup>. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**30. *Artemisia incisa* var. *kunawarensis*** Pamp. in Nuovo Giorn. Bot. Ital., n.s., 33: 456. 1926; B.D.Naithani in Hajra *et al.*, Fl. India 12: 47. 1995; Karthik. *et al.*, Fl. Pl. India 1: 194. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019.**Vedic name:** Devājyakaḥ kīrṇaśākhaḥ <sup>[15, 19]</sup>**Fl. & Fr.:** August.**Ecology & Distribution:** It prefers to grow in rocky slopes, hillsides upto an elevation of 3000 m. It is native to Western Himalayan region and widely distributed in Himachal Pradesh.**Epithet:** Based on Kunawar, Pakistan <sup>[18]</sup>. The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**31. *Artemisia indica*** Willd., Sp. Pl., ed. 4, 3: 1846. 1803; Hook F., Fl. Brit. India 3: 325. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 27. 1995; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. *A. wallichiana* Besser in Nouv. Mém. Soc. Imp. Naturalistes Moscou 3: 69. 1834; B.D.Naithani in Hajra *et al.*, Fl. India 12: 46. 1995. Indian mugwort (Eng.)**Vedic name:** Devājyakaḥ viradapatraḥ <sup>[15, 19]</sup>**Fl. & Fr.:** August- October**Ecology & Distribution:** It prefers to grow on road side of durtlang, at an elevation of up to 900 m. It is native to Asia with widely distributed in Assam and East and West Himalayan region.**Epithet:** Greek word *indos* and Latin *indus* means 'of or from India' and the term India derived from Latin word *indus* with reference to Indus river (Sindhu River) or Sanskrit word *sindhu* used for Sindhu river situated in Western border of India <sup>[18]</sup>. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**32. *Artemisia indica* var. *dissecta*** Pamp. In Nuovo Giorn. Bot. Ital., N.S., 33: 459. 1926; B.D.Naithani in Hajra *et al.*, Fl. India 12: 27. 1995; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009. Indian Wormwood (Eng.)**Vedic name:** Devājyakaḥ laghumuṇḍaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** March-April

**Ecology & Distribution:** It prefers to grow upto an elevation of 1500-2000m. It is widely distributed in North East India and Assam.

**Epithet:** Latin word *dissecta* means 'cut into many deep segments' [18].

The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**33. *Artemisia indica* var. *elegantissima*** (Pamp.) Y.R. Ling & Humphries in Bull. Bot. Res., Harbin 8(4): 29. 1988; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. *A. elegantissima* Pamp. In Nuovo Giorn. Bot. Ital., ser. 2, 33: 454. 1926; B.D.Naithani in Hajra, *et al.*, Fl. India 12: 21. 1995.

**Vedic name:** Devājyakaḥ pañcaradaḥ [15, 19]

**Fl. & Fr.:** September-October

**Ecology & Distribution:** It prefers to grow on gravelly and pebbly hillslopes in valleys, at the elevation above 1500 m. It is native to Western Himalayan region.

**Epithet:** Latin word *elegantissima* means 'most elegant' [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**34. *Artemisia indica* var. *kumaonensis*** (Pamp.) Karthik. & Moorthy, Fl. Pl. India: 195. 2009; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. *A. elegantissima* var. *kumaonensis* Pamp. in Nuovo Giorn. Bot. Ital. 33: 455. 1926. Kumaon mugwort (Eng.)

**Vedic name:** Devājyakaḥ sumitaughāḥ [15, 19]

**Fl. & Fr.:** September

**Ecology & Distribution:** It prefers to grow on rocky slopes and roadside, at an elevation of 1500 m. It is widely distributed in Western Himalayan region and Uttarakhand.

**Epithet:** Based on Kumaon region of Uttarakhand [18].

The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**35. *Artemisia japonica*** Thunb. in Nova Acta Regiae Soc. Sci. Upsal., ser. 2, 3: 209. 1780; Hook.f., Fl. Brit. India 3: 322. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 28. 1995; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. *A. japonica* var. *lanata* Pamp. in Rend. Sem. Fac. Sci. Univ. Cagl. 8: 3. 1938; Karthik, *et al.*, Fl. Pl. India 1: 195. 2009. Japanese mugwort (Eng.)

**Vedic name:** Devājyakaḥ phaṇapatraḥ [15, 19]

**Fl. & Fr.:** July- December

**Ecology & Distribution:** It prefers to grow in fields and waste lands, at an elevation of 1500-3000 m. It is native to Temperate Himalayas, Indo-Gangetic Plain and Deccan Peninsula Jammu & Kashmir, Himachal Pradesh, Punjab

(Rare), Uttar Pradesh, Bihar, Sikkim, Meghalaya, Odisha, Rajasthan, Karnataka and Kerala.

**Epithet:** Based on Japan [18].

The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**36. *Artemisia laciniata*** Willd., Sp. Pl., ed. 4, 3: 1843. 1803; Hook F., Fl. Brit. India 3: 326. 1881. Siberian wormwood (Eng.)

**Vedic name:** Devājyakaḥ chinnapatraḥ [15, 19]

**Fl. & Fr.:** August-September

**Ecology & Distribution:** It prefers to grow on mountainous semi-shade region, in sandy or loamy to clay soil at an elevation between 2700-4200 m. It is native to Western Himalayan region.

**Epithet:** Greek word *laciniata* means 'jagged, fringed, slashed, with many flaps' [18].

The plant is highly medicinal and has been mark as Near Threatened according to IUCN Red list version 2022-1 [20].

**37. *Artemisia lactiflora*** Wall. ex DC., Prodr. 6: 115. 1838; B.D.Naithani in Hajra *et al.*, Fl. India 12: 47. 1995; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009. Ghostplant wormwood (Eng.)

**Vedic name:** Devājyakaḥ sitapuṣpaḥ [15, 19]

**Fl. & Fr.:** August- October

**Ecology & Distribution:** It prefers to grow in forest margins, shrub lands, canyons, slopes, roadsides, river banks and thickets, at an elevation up to 3000 m. It is native to East Asia with wide distribution in India (Assam).

**Epithet:** Latin word *lactiflora* means 'milky-white flowers' [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**38. *Artemisia lavandulaefolia*** Nakai, Flora Koreana 2: 29. 1911; B.D.Naithani in Hajra *et al.*, Fl. India 12: 47. 1995; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009.

**Vedic name:** Devājyakaḥ pakṣmadalaḥ [15, 19]

**Ecology & Distribution:** Plant prefers to grow along street or in low-lying areas, forest edges, slopes, meadows, valleys, rivers, lakes and lawns. It is mainly found in Maharashtra and Meghalaya regions of India.

**Epithet:** Having leaves like the genus *Lavandula* [18].

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**39. *Artemisia macrantha*** Ledeb. in Mém. Acad. Imp. Sci. St. Pétersbourg Hist. Acad. 5: 573. 1815; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009. Large Head Artemisia (Eng.)

**Vedic name:** Devājyakaḥ kimromāṁṣaḥ [15, 19].

**Fl. & Fr.:** August-October

**Ecology & Distribution:** Plant prefers to grows in canyons, steppes, meadows, shrublands, waysides, at low elevation up to 1500 m. It is native to Western Himalayan regions and widely distributed in Himachal Pradesh, Jammu & Kashmir, Sikkim, Uttarakhand, West Bengal (Darjeeling).

**Epithet:** Greek word *macrantha* means 'large flowers' [18]. The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**40. *Artemisia macrocephala*** Jacquem. ex Besser in Bull. Soc. Imp. Naturalistes Moscou 9: 28. 1836; Hook.f., Fl. Brit. India 3: 329. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 28. 1995; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. *Large-flowered wormwood* (Eng.)

**Vedic name:** Devājyakaḥ dīrghamuṇḍaḥ [15, 19]

**Fl. & Fr.:** July-September

**Ecology & Distribution:** It prefers to grow on high altitudes, sandy, grassy slopes streams and glaciers, sea level, rocks in dry beds at an elevation range from 3400-5500 m. It is native to West Himalayan regions.

**Epithet:** Greek word *macrocephala* means 'with large head'; refers to the flowers [18]. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**41. *Artemisia maritima* L.**, Sp. Pl.: 846. 1753; Hook.f., Fl. Brit. India 3: 323. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 31. 1995; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. *Seriphidium maritimum* (L.) Poljakov in Trudy Inst. Bot. Akad. Nauk Kazakhst. S.S.R. 11: 172. 1961. *Drooping sea-wormwood* (Eng.)

**Vedic name:** Devājyakaḥ kharavalkaḥ [15, 19]

**Ecology & Distribution:** It prefers to grow on open dry rocky slopes, at an elevation of 2000-3000 m. It is widely distributed in Western Himalayan regions.

**Epithet:** Latin word *maritima* means 'growing by or found by the seashore, maritime, of the sea' [18]. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**42. *Artemisia minor*** Jacquem. ex Besser in Bull. Soc. Imp. Naturalistes Moscou 9: 22. 1836; Hook.f., Fl. Brit. India 3: 329. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 33. 1995; Karthik. *et al.*, Fl. Pl. India 1: 195. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. *A. tibetica* Hook F., Fl. Brit. India 3: 329. 1881.

**Vedic name:** Devājyakaḥ supraromapatraḥ [15, 19]

**Fl. & Fr.:** June-September

**Ecology & Distribution:** It prefers to grow on alpine, gravel mixed sandy clay, soils on mountain slopes at an elevation of 4000 m. It is native to Eastern & Western Himalayan regions and widely distributed in Jammu & Kashmir, Ladakh and

Sikkim.

**Epithet:** Latin word *minor* means 'smaller, lesser' [18]. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**43. *Artemisia myriantha*** Wall. ex Besser in Nouv. Mém. Soc. Imp. Naturalistes Moscou 3: 51. 1834; Hook.f., Fl. Brit. India 3: 325. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 36. 1995; Karthik. *et al.*, Fl. Pl. India 1: 196. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. *Worm wood* (Eng.)

**Vedic name:** Devājyakaḥ granthiśīraḥ [15, 19]

**Fl. & Fr.:** August-November

**Ecology & Distribution:** It prefers to grow on slopes, roadsides, shrublands, cultivated fields, thickets, forests, rocky riverbanks, ravines, at an elevation of 800-3500 m. It is native to Assam, Eastern & Western Himalayan regions.

**Epithet:** Greek word *myriantha* means 'with a large number of flowers' [18]. The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 [20].

**44. *Artemisia myriantha* var. *pleiocephala*** (Pamp.) Y.R. Ling in Kew Bull. 42: 446. 1987; B.D.Naithani in Hajra *et al.*, Fl. India 12: 36. 1995; Karthik. *et al.*, Fl. Pl. India 1: 196. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. *A. pleiocephala* Pamp. in Nuovo Giorn. Bot. Ital., ser. 2, 36: 446. 1930.

**Vedic name:** Devājyakaḥ sumuṇḍaḥ [15, 19]

**Fl. & Fr.:** October-December

**Ecology & Distribution:** It prefers to grow on slopes, roadsides, cultivated fields, thickets, forests, rocky riverbanks, at an elevation of 800-2800 m. It is widely distributed in Eastern & Western Himalayan regions.

**Epithet:** Latin word *pleiocephala* means 'many heads' [18]. The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**45. *Artemisia nepalensis*** Nees in Flora 14: 290 (1831); B.D. Naithani in Hajra *et al.*, Fl. India 12: 47. 1995; Karthik. *et al.*, Fl. Pl. India 1: 196. 2009.

**Vedic name:** Devājyakaḥ apriyagandhaḥ [15, 19]

**Ecology & Distribution:** is native to Eastern Himalayan regions.

**Epithet:** Based on Nepal [18]. The plant has not yet been assessed for the IUCN Red list version 2022-1 [20].

**46. *Artemisia nilagirica*** (C.B.Clarke) Pamp. in Nuovo Giorn. Bot. Ital., ser. 2, 33: 452. 1926; Hook F., Fl. Brit. India 3: 325. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 36. 1995; Karthik. *et al.*, Fl. Pl. India 1: 196. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. *A. vulgaris* var. *nilagirica* C.B.Clarke in Compos. Ind.: 162. 1876. *Nilgiri Wormwood*



(Eng.)

**Vedic name:** Devājyakaḥ pūtaḥ <sup>[15, 19]</sup>**Fl. & Fr.:** August-October**Ecology & Distribution:** It prefers to grow on slopes at middle elevations. It is native to Assam and West Himalaya.**Epithet:** Based on Nilgiri Hills, South India <sup>[18]</sup>.The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**47. *Artemisia nilagirica* var. *septentrionalis*** Pamp. in Nuovo Giorn. Bot. Ital., n.s., 33(3): 453-454. 1926; B.D. Naithani in Hajra *et al.*, Fl. India 12: 37. 1995; Karthik. *et al.*, Fl. Pl. India 1: 196. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019.**Vedic name:** Devājyakaḥ nālasumaḥ <sup>[15, 19]</sup>**Fl. & Fr.:** November to March**Ecology & Distribution:** It is found on common way sides, open places at an elevation up to 1500 m. Its native range is India in Himachal Pradesh, Srinagar, Uttarakhand, Uttar Pradesh and Western Himalayan regions.**Epithet:** Latin word *septentrionalis* means 'of the north, of northern areas' <sup>[18]</sup>.The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**48. *Artemisia pallens*** Wall. ex DC., Prodr. 6: 120. 1838; Hook F., Fl. Brit. India 3: 329. 1881; Karthik. *et al.*, Fl. Pl. India 1: 196. 2009. *A. paniculata* Roxb., Hort. Bengal.: 61; Fl. Ind. 3: 418. 1814. *A. orientalis* DC. Prodr. 6: 120. 1838. *A. absinthii* B. Heyne ex Hook F., Fl. Brit. India 3: 329. 1881.**Vedic name:** Devājyakaḥ bhidurakāṇḍaḥ <sup>[15, 19]</sup>**Fl. & Fr.:** November-March**Ecology & Distribution:** It is found on dry area, hills, humid and wet areas. Its native range is India to Myanmar.**Epithet:** Latin word *pallens* means 'fading, waning, pale' <sup>[18]</sup>.The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**49. *Artemisia parviflora*** Roxb. ex D. Don, Prodr. Fl. Nepal.: 181. 1825; Hook F., Fl. Brit. India 3: 322. 1881; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. *Himalayan wormwood* (Eng.)**Vedic name:** Devājyakaḥ laghupuṣpaḥ <sup>[15, 19]</sup>**Fl. & Fr.:** August-October**Ecology & Distribution:** It prefers to grow on grasslands, slopes, forest margins, roadsides, ravines, field margins at an elevation of 400-4000 m. It is native to Asia with wide distribution in Uttarakhand, Myanmar, Tibet and Himalayan regions.**Epithet:** Latin word *parviflora* means 'small-flowers' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed

for the IUCN Red list version 2022-1 <sup>[20]</sup>.**50. *Artemisia persica*** Boiss., Diagn. Pl. Orient., ser. 1, 6: 91. 1846; Hook F., Fl. Brit. India 3: 327. 1881; B.D. Naithani in Hajra *et al.*, Fl. India 12: 37. 1995. Karthik, *et al.*, Fl. Pl. India 1: 196. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019.**Vedic name:** Devājyakaḥ phaladakusumaḥ <sup>[15, 19]</sup>**Fl. & Fr.:** July-October**Ecology & Distribution:** Plant prefers to grow in Ladakh sandy soils mixed with limestone gravel and rocky hill slopes at an elevation ranging from 2700-4200 m. The plant is distributed in West Himalayan region, Jammu & Kashmir, Uttarakhand and Uttar Pradesh.**Epithet:** On the basis of Persia (Iran) <sup>[18]</sup>.The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**51. *Artemisia princeps*** Pamp. in Nuovo Giorn. Bot. Ital., N.S., 36: 444. 1930; Karthik. *et al.*, Fl. Pl. India 1: 196. 2009. Japanese mugwort (Eng.)**Vedic name:** Devājyakaḥ ṛṣadromā <sup>[15, 19]</sup>**Fl. & Fr.:** July-November**Ecology & Distribution:** It prefers to grow on roadsides, slopes, shrublands, forest margins, valleys, riverbanks at an elevation ranging from 100-1400 m. It is native to Temperate East Asia.**Epithet:** Latin word *princeps* means 'most eminent or distinguished, first-head' <sup>[18]</sup>.The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**52. *Artemisia robusta*** (Pamp.) Ling & Y.R. Ling in Bull. Bot. Res., Harbin 8(4): 26. 1988; B.D. Naithani in Hajra *et al.*, Fl. India 12: 47. 1995; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. *A. strongylocephala* F. *robusta* Pamp. in Giorn. Bot. Ital., N.S., 34: 178. 1927. Wormwood (Eng.)**Vedic name:** Devājyakaḥ ṛḍḍhataruḥ <sup>[15, 19]</sup>**Fl. & Fr.:** August-October**Ecology & Distribution:** Plant prefers to grow on slopes, roadsides, shrublands, canyons, at an elevation of 1600-3500 m. It is native to Eastern Himalayan regions.**Epithet:** Latin word *robusta* means 'of oak, strong-growing, robust' <sup>[18]</sup>.The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.**53. *Artemisia roxburghiana*** Wall. ex Besser in Bull. Soc. Imp. Naturalistes Moscou 9; Hook F., Fl. Brit. India 3: 326. 1881; B.D. Naithani in Hajra *et al.*, Fl. India 12: 38. 1995; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. Roxburgh's Wormwood (Eng.)

**Vedic name:** Devājyakaḥ pakṣavṛntaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August-October

**Ecology & Distribution:** It prefers to grow on low hills, at the elevation between 1500-3000 m. It is native to Central to Western Himalayan regions and widely distributed in Kashmir and Uttarakhand.

**Epithet:** In the honour of 18th century Scottish botanist, William Roxburgh (1751-1815) <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**54. *Artemisia roxburghiana* var. *purpurascens*** (Jacquem. ex Bess.) Hook F., Hook F., Fl. Brit. India 3: 326. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 39. 1995; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. *A. purpurascens* Jacquem. ex Besser in Bull. Soc. Imp. Naturalistes Moscou 9: 60. 1836. *A. stronglylocephala* Pamp. in Nuovo Giorn. Bot. Ital., n.s., 34: 176. 1927; B.D.Naithani in Hajra *et al.*, Fl. India 12: 44. 1995.

**Vedic name:** Devājyakaḥ vṛntākāparisapatraḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August-September

**Ecology & Distribution:** It prefers to grow on dry canyons and grasslands, at an elevation of 2000-3800 m. It is native to Western and Northern Himalayan regions.

**Epithet:** Latin word *purpurascens* means 'becoming purple' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**55. *Artemisia roxburghiana* var. *grata*** (Wall. ex Besser) Hook F., Hook.f., Fl. Br. Ind. 3: 326. 1881; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009. *A. grata* Wall. ex Besser in Tent. Arbot.: 57. 1832.

**Vedic name:** Devājyakaḥ sitaromāṁśaḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** is widely distributed in West Himalayan region.

**Epithet:** Latin word *grata* means 'pleasing, agreeable, welcome' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**56. *Artemisia roxburghiana* var. *hypoleuca*** (Edgew.) Pamp., Nuovo Giorn. Bot. Ital., n.s., 34: 173. 1927; B.D.Naithani in Hajra *et al.*, Fl. India 12: 39. 1995; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019.

**Vedic name:** Devājyakaḥ aṇḍabhallāṁśaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August-September

**Ecology & Distribution:** It is widely distributed in West Himalayan region.

**Epithet:** Greek word *hypoleuca* means 'whitish, pale below'

<sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**57. *Artemisia rutifolia*** Stephan ex Spreng., Syst. Veg. 3: 488; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019. *A. falconeri* C.B.Clarke, Fl. Brit. India 3: 328. 1881. Rock wormwood (Eng.)

**Vedic name:** Devājyakaḥ romagaṇḍaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-October

**Ecology & Distribution:** It prefers to grow on hills, dry river valleys, basins, steppes, semi-deserts, Gobi Desert, at an elevation of 1300-5000 m. It is native to East and West Himalaya found in the range of 1300-5000 m.

**Epithet:** Having leaves like the genus *Ruta* (Rue) <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**58. *Artemisia salsoloides*** Willd., Sp. Pl., ed. 4, 3: 1832. 1803; Hook F., Fl. Brit. India 3: 321. 1881; B.D. Naithani in Hajra *et al.*, Fl. India 12: 40. 1995; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 102. 2019.

**Vedic name:** Devājyakaḥ harikāṇḍaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-September

**Ecology & Distribution:** Plant prefers to commonly grow in alpine grasslands, meadows and rocky steppes on limestone outcrops, pastures between altitudinal range of 1800-4100 m. Its native range is Western Himalayan regions.

**Epithet:** Resembling the genus *Salsola* <sup>[18]</sup>.

The plant is medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**59. *Artemisia salsoloides* var. *paniculata*** Hook.f., Hook.f., Fl. Brit. India 3: 321. 1881; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009. Panicked Head Artemisia (Eng.)

**Vedic name:** Devājyakaḥ ḍṛḍhakāṇḍaḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It is native to North-Western Himalayan regions.

**Epithet:** Latin word *paniculata* means 'with a branched-racemose or cymose inflorescence, tufted, paniculate' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**60. *Artemisia salsoloides* var. *wellbyi*** (Hemsl. & Pearson) Ostenf., Hedin, S. Tibet 6(3): 40. 1922; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. *A. wellbyi* Hemsl. & Pearson in J. Linn. Soc., Bot. 35: 183. 1902.

**Vedic name:** Devājyakaḥ golamuṇḍaḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It prefers to grow on rocky slopes at an elevation of 5000 m. It is widely distributed in Jammu & Kashmir region.

**Epithet:** In the honour of Captain Montague Sinclair Wellby (1866-1900) <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**61. *Artemisia santolinifolia*** Turcz. ex Krasch., Fl. Zap. Sib. 11: 2791. 1949; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019.

**Vedic name:** Devājyakaḥ sandhivṛntaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August-October

**Ecology & Distribution:** It prefers to grow on dry stony and scree places on slopes with sandy-clay soils, at an elevation of 3500-4800 m. It is native to Jammu & Kashmir, Uttarakhand.

**Epithet:** Having leaves like the genus *Santolina* <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**62. *Artemisia scoparia*** Waldst. & Kit. in Descr. Icon. Pl. Hung. 1: 66. 1802; Hook F., Fl. Brit. India 3: 325. 1881; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. Red stem wormwood (Eng.)

**Vedic name:** Devājyakaḥ ūhanīkaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-October

**Ecology & Distribution:** It prefers to grow in sandy-clay soils of arid desert tracts and low hills in stony ground wastelands, field borders and roadsides at the elevation from 400-2200 m. It is introduced in to West Himalayan regions.

**Epithet:** Greek word *scoparia* means 'like a broom' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**63. *Artemisia sieversiana*** Ehrh. ex Willd., Sp. Pl., ed. 4, 3: 1845. 1803; Hook F., Fl. Brit. India 3: 329. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 41. 1995; Karthik. *et al.*, Fl. Pl. India 1: 197. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. Sieversian wormwood (Eng.)

**Vedic name:** Devājyakaḥ pravṛtṭaphalaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-September

**Ecology & Distribution:** It prefers to grow in roadsides, waste places, steppes, hillsides, forest margins at an elevation up to 4200 m. Its native range is West Himalayan region.

**Epithet:** In the honour of plant collector and Botanist, Johann Erasmus (August Carl) Sievers (1762-1795) <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**64. *Artemisia stelleriana*** Besser in Nouv. Mém. Soc. Imp. Naturalistes Moscou 3: 79. 1834. Beach sage or Beach wormwood (Eng.)

**Vedic name:** Devājyakaḥ ghaparicakraḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** May-September

**Ecology & Distribution:** It is found on sandy soils, coastal strand, at an elevation up to 200 m. It is commonly cultivated in India.

**Epithet:** Honour of German naturalist, botanist and zoologist, Georg Willhelm Steller (1709-1746) <sup>[18]</sup>.

The plant is medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**65. *Artemisia stracheyi*** Hook F. & Thomson ex C.B. Clarke in Compos. Ind.: 164. 1876; Hook F., Fl. Brit. India 3: 328. 1881. *Artemisiella stracheyi* (Hook F. & Thomson ex C.B. Clarke) Ghafoor in Candollea 47: 642. 1992.

**Vedic name:** Devājyakaḥ aśīmākṣaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-November

**Ecology & Distribution:** It prefers to grow on hills, floodlands, lakesides, rocky slopes, meadows, shrublands, at an elevation of 4300-5200 m. It is widely distributed in Tibet and Western Himalayan regions.

**Epithet:** Honour of plant collector in the Himalayas, Sir Richard Strachey Fellow of Royal Society (1817-1908) <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**66. *Artemisia stricta*** Edgew. In Trans. Linn. Soc. London 20: 73. 1846; Hook F., Fl. Brit. India 3: 323. 1881. B.D.Naithani in Hajra *et al.*, Fl. India 12: 43. 1995; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. *A. edgeworthii* N.P. Balakr. in J. Bombay Nat. Hist. Soc. 63: 329. 1967. Worm wood (Eng.)

**Vedic name:** Devājyakaḥ ṛjumuṇḍakaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-September

**Ecology & Distribution:** It prefers to grow on dry slopes, roadsides, forest margins, valleys, waste areas, shrub lands, At an elevation of 2200-4700 m. It is native to Himalayan regions.

**Epithet:** Latin word *stricta* means 'erect, upright' <sup>[18]</sup>.

The plant is medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**67. *Artemisia stricta* var. *diffusa*** (Pamp.) Y.R. Ling & M.G. Gilbert, Fl. China 20-21: 730. 2011. *A. stricta* f. *diffusa* Pamp. in Nuovo Giorn. Bot. Ital., n.s., 34: 705. 1927; B.D.Naithani in Hajra *et al.*, Fl. India 12: 43. 1995. *A. edgeworthii* var. *diffusa* (Pamp.) Ling & Y.R. Ling in J. Nanjing Technol. Coll. Forest Prod. 1981(1): 84. 1981.

**Vedic name:** Devājyakaḥ bhūśāyī <sup>[15, 19]</sup>

**Fl. & Fr.:** July-August

**Ecology & Distribution:** It prefers to grow on dry slopes, roadsides, forest margins, valleys, waste areas, shrublands at an elevation of 4500 m. It is the native of Eastern and Northern Himalaya and widely distributed in Sikkim.

**Epithet:** Latin word *diffusa* means 'loosely spreading, diffuse' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**68. *Artemisia tainingensis* var. *nitida*** (Pamp.) Y.R. Ling in Bull. Bot. Res., Harbin 8(4): 33. 1988; Karthik. *et al.*, Fl. Pl. India 1: 198. 2009. *A. moorcroftiana* f. *nitida* Pamp., Nuovo Giorn. Bot. Ital., n.s., 34: 681. 1927. *A. moorcroftiana* var. *nitida* (Pamp.) Ling & Y.R. Ling in J. Nanjing Technol. Coll. Forest Prod. 1981(1): 83. 1981. *A. wallichiana* f. *nitida* (Pamp.) B.D. Naithani, Fl. India 12: 46. 1995. Shiny leaves *Artemisia* (Eng.)

**Vedic name:** Devājyakaḥ aromaśākhaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-October

**Ecology & Distribution:** It prefers to grow on terraces, rocky slopes, at an elevation of 4100-5300 m. It is native to West Himalaya.

**Epithet:** based on type locality Taining, China and Latin word *nitida* means 'shiny, bright, elegant'; refers to the shiny leaves <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**69. *Artemisia thellungiana*** Pamp. In Nuovo Giorn. Bot. Ital., ser. 2, 33: 457. 1926; B.D.Naithani in Hajra *et al.*, Fl. India 12: 44. 1995; Karthik *et al.*, Fl. Pl. India 1: 198. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019.

**Vedic name:** Devājyakaḥ vṛntotpatraḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August-October

**Ecology & Distribution:** It prefers to grow on slopes, roadsides, at an elevation of 1200-3000 m. It is native to Eastern Himalayan region.

**Epithet:** Honour of botanist and author, Albert Thellung (1881-1928) <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**70. *Artemisia thomsoniana*** (C.B.Clarke) Filatova in Novosti Sist. Vyssh. Rast. 23: 239 (1986). *A. maritima* var. *thomsoniana* C.B.Clarke, Compos. Ind. 160. 1878; B.D. Naithani in Hajra *et al.*, Fl. India 12: 33. 1995; Singh *et al.*, Pl. Ind. Him. Reg. 1: 101. 2019. Sea Warmwood (Eng.)

**Vedic name:** Devājyakaḥ bhasmoraḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August-November

**Ecology & Distribution:** It prefers to grow on roadsides and rocky slopes, at an elevation of 3700 m. It is commonly found in Himachal Pradesh, Jammu & Kashmir, Uttarakhand.

**Epithet:** Honour of professor at University College London, Anthony Todd Thomson (1778-1849) or Superintendent of Calcutta Botanic Garden, Thomas Thomson (1817-1878) <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**71. *Artemisia tournefortiana*** Rchb. in Iconogr. Bot. Exot. 1:

6. 1824; Hook.f., Fl. Brit. India 3: 324. 1881; B.D.Naithani in Hajra *et al.*, Fl. India 12: 45. 1995; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. *Slender mugwort* (Eng.)

**Vedic name:** Devājyakaḥ dviradaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-October

**Ecology & Distribution:** It prefers to grow near lake, shores, stream banks, ditches, mud flats in very sandy soils, at an elevation ranging from 2072-2194 m. It is native to Central Asia and Western Himalayan region. It grows primarily in the temperate biome(s).

**Epithet:** Honour of French physician and botanist, Joseph Pitton de Tournefort (1656-1708) <sup>[18]</sup>.

The plant is medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**72. *Artemisia tukuchaensis*** Kitam., Acta Phytotax. Geobot. 30: 127. 1979; Karthik. *et al.*, Fl. Pl. India 1: 198. 2009.

**Vedic name:** Devājyakaḥ laghūtparisapatraḥ <sup>[15, 19]</sup>

**Ecology & Distribution:** It prefers to grow clearings in coniferous forests. It is native to Eastern Himalayan regions.

**Epithet:** Based on a locality Tukucha, Nepal <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**73. *Artemisia velutina*** Pamp. In Nuovo Giorn. Bot. Ital., n.s., 36: 413. 1930; B.D. Naithani in Hajra *et al.*, Fl. India 12: 47. 1995; Karthik. *et al.*, Fl. Pl. India 1: 198. 2009.

**Vedic name:** Devājyakaḥ harinmādhīḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** September-November

**Ecology & Distribution:** It prefers to grow on slopes, roadsides, at low to middle elevations. It is native to Assam and Western Himalayan region.

**Epithet:** Latin word *velutina* means 'a soft silky down-like covering, velvety' <sup>[18]</sup>.

The plant has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**74. *Artemisia verlotiorum*** Lamotte, Mém. Assoc. Franç. Cong. Clermont-Ferrant: 511. 1876; B.D.Naithani in Hajra *et al.*, Fl. India 12: 45. 1995; Karthik. *et al.*, Fl. Pl. India 1: 198. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. Kamshatka wormwood (Eng.)

**Vedic name:** Devājyakaḥ kīrṇaromā <sup>[15, 19]</sup>

**Fl. & Fr.:** September-November

**Ecology & Distribution:** It prefers to grow in sandy river banks. Its native range is Himalayan regions and Assam.

**Epithet:** In the honour of brothers, Jean Baptiste verlot (1815-1891) and Pierre Bernard Verlot (1836-1897) <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**75. *Artemisia vestita*** Wall. ex Besser, Tent. Arbot. 25. 1832; Hook F., Fl. Brit. India 3: 326. 1881; Karthik. *et al.*, Fl. Pl. India 1: 198. 2009; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. Aloe leaf cymbidium, Russian wormwood (Eng.)

**Vedic name:** Devājyakaḥ parṇāṅapatraḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** August-October

**Ecology & Distribution:** It prefers to grow on hills, rocky slopes, grasslands, shrub lands and outer forest margins at an elevation up to 4300 m. It is native to Western Himalayan regions.

**Epithet:** Latin word *vestita* means 'clothed, covered, dressed' <sup>[18]</sup>.

The plant is highly medicinal and has not yet been assessed for the IUCN Red list version 2022-1 <sup>[20]</sup>.

**76. *Artemisia vulgaris*** L., Sp. Pl.: 848. 1753; Hook F., Fl. Brit. India 3: 325. 1881; Singh *et al.*, Pl. Ind. Him. Reg. 1: 103. 2019. Chrysanthemum weed (Eng.)

**Vedic name:** Devājyakaḥ damanaḥ <sup>[15, 19]</sup>

**Fl. & Fr.:** July-September

**Ecology & Distribution:** Plant prefers to grow in scattered, mostly in urban areas, ardens, railroads, roadsides and open, disturbed areas, at an elevation of 4000 m. It is found in Sikkim, Khasia hills, Mt. Abu. Western Ghats, Konkan to Southwards.

**Epithet:** Latin word *vulgaris* means 'usual, of the crowd, common, ordinary, vulgar' <sup>[18]</sup>.

The plant is highly medicinal and has been marked as *Least Concern* according to IUCN Red list version 2022-1 <sup>[20]</sup>.

**Table 1:** Vedic nomenclature and origin of genus and all species of *Artemisia* <sup>[15, 19]</sup>

| Genus Vedic Nomenclature   |                   |  |
|--|-------------------|--|
| <i>Artemisia</i>   | Devājyakaḥ        | Based on highly aromatic odour and the plants of this genus are used in the worship of God |
| Species Vedic Nomenclature   |                   |  |
| <i>A. abrotanum</i> L.   | pīnamūlah         | Based on its thick root.   |
| <i>A. Absinthium</i> L.  | musalakāṇḍaḥ      | Based on terete stem.  |
| <i>A. amygdalina</i> Decne.  | khañcikāṇḍaḥ      | Based on deeply grooved stem.  |
| <i>A. annua</i> L.   | bindupatraḥ       | Based on dotted leaves.  |
| <i>A. austrohimalayaensis</i> Y.R. Ling & Puri                               | kargadapatraḥ     | Based on papery leaves.  |
| <i>A. austroyunnanensis</i> Ling & Y.R. Ling                                 | prāyataikīnaḥ     | Based on oblong achene.  |
| <i>A. banihalensis</i> M.K. Kaul & S.K. Bakshi                               | vṛntākakāṇḍaḥ     | Based on purple stem.  |
| <i>A. biennis</i> Willd.   | granthikāṇḍaḥ     | Based on glandular stem.   |
| <i>A. borealisiamensis</i> Y.R.Ling & Humphries                              | avasitaḥ          | Based on leaves with white under surface.  |
| <i>A. campbellii</i> Hook.f. & Thomson ex C.B. Clarke                        | avṛntotpatraḥ     | Based on upper leaves sessile.   |
| <i>A. capillaris</i> Thunb.  | tantukhaṇḍaḥ      | Based on thread-like segments of leaves.   |
| <i>A. caruifolia</i> Buch. Ham. ex Roxb.                                     | tigmapatraḥ       | Based on pointed leaves.   |
| <i>A. cashemirica</i> M.K. Kaul & S.K. Bakshi                                | sitorṇakaḥ        | Based on plant covered with white cottony hairy growth.                                    |
| <i>A. demissa</i> Krasch.  | rekhipatrāṁśaḥ    | Based on narrowly linear lobules.  |
| <i>A. desertorum</i> Spreng.   | bahumuṇḍaḥ        | Based on many capitula.  |
| <i>A. desertorum</i> var. <i>foetida</i> (Jacquem. ex DC.) Ling & Y.R. Ling  | gucchilaḥ         | Based on clustered stems.  |
| <i>A. Dracunculus</i> L.   | abhaktapatraḥ     | Based on undivided leaves.   |
| <i>A. Dracunculus</i> var. <i>pamirica</i> (C. Winkl.) Y.R. Ling & Humphries | rekhibhallaḥ      | Based on linear-lanceolate leaf blade.   |
| <i>A. dubia</i> Wall. ex Besser  | granthinālah      | Based on glandular corolla-tube.   |
| <i>A. dubia</i> var. <i>subdigitata</i> (Mattf.) Y.R. Ling                   | aromapatraḥ       | Based on glabrescent leaf.   |
| <i>A. eriocephala</i> Pamp.  | ūrṇamuṇḍaḥ        | Based on densely tomentose head.   |
| <i>A. filiformilobulata</i> Y.R. Ling & Puri                                 | śītatala          | Based on acute leaf base.  |
| <i>A. glauca</i> Pall. ex Willd.,  | babhrubṛjāḥ       | Based on brown seed.   |
| <i>A. gmelinii</i> Weber ex Stechm.  | kāṣṭhakāṇḍaḥ      | Based on woody stem.   |
| <i>A. gmelinii</i> var. <i>minor</i> (Ledeb.) B.D.Naithani                   | rekhāyataḥ        | Based on oblong-linear outer involucre bracts.   |
| <i>A. hedinii</i> Ostenf.  | vṛntākadalaḥ      | Based on purple corolla.   |
| <i>A. imponens</i> Pamp.   | pakṣapṛākṣaḥ      | Based on winged rachis.  |
| <i>A. incisa</i> Pamp.   | pravṛtṭparicakraḥ | Based on ellipsoid involucre.  |
| <i>A. incisa</i> var. <i>kunawarensis</i> Pamp.                              | kīrṇāśākhaḥ       | Based on irregularly congested panicle branches.   |
| <i>A. indica</i> Willd.  | viradapatraḥ      | Based on irregularly serrate leaves.   |
| <i>A. indica</i> var. <i>dissecta</i> Pamp.                                  | laghumuṇḍaḥ       | Based on smaller head.   |
| <i>A. indica</i> var. <i>elegantissima</i> (Pamp.) Y.R. Ling & Humphries     | pañcaradaḥ        | Based on 5-toothed corolla.  |
| <i>A. indica</i> var. <i>kumaonensis</i> (Pamp.) Karthik. & Moorthy          | sumitaughāḥ       | Based on medium-sized panicle.   |
| <i>A. japonica</i> Thunb.  | phaṇapatraḥ       | Based on cuneate leaves.   |
| <i>A. laciniata</i> Willd  | chinnapatraḥ      | Based on incised leaves.   |
| <i>A. lactiflora</i> Wall. ex DC.  | sitapuṣpaḥ        | Based on milky white flowers.  |
| <i>A. lavandulaefolia</i> Nakai  | pakṣmadalaḥ       | Based on ciliate corolla.  |
| <i>A. macrantha</i> Ledeb.   | kiṃromāṁśaḥ       | Based on puberulent corolla-limb.  |

|  |                    |  |
|--|--------------------|--|
| <i>A. macrocephala</i> Jacquem. ex Besser                                    | dirghamuṇḍaḥ       | Based on large head.                                 |
| <i>A. maritima</i> L.  | kharavalkaḥ        | Based on rough and fibrous bark.                     |
| <i>A. minor</i> Jacquem. ex Besser   | supraromapatraḥ    | Based on villose leaves.                             |
| <i>A. myriantha</i> Wall. ex Besser  | granthīśiraḥ       | Based on glandular veins of leaf.                    |
| <i>A. myriantha</i> var. <i>pleiocephala</i> (Pamp.) Y.R. Ling               | sumuṇḍaḥ           | Based on numerous heads (inflorescence).             |
| <i>A. nepalensis</i> Nees  | apriyagandhaḥ      | Based on unpleasant aromatic odour of the plant.     |
| <i>A. nilagirica</i> (C.B.Clarke) Pamp.                                      | pūtaḥ              | Based on as holy plant used in worship.              |
| <i>A. nilagirica</i> var. <i>septentrionalis</i> Pamp.                       | nālasumaḥ          | Based on tubular florets.                            |
| <i>A. pallens</i> Wall. ex DC.   | bhidurakāṇḍaḥ      | Based on brittle stem.                               |
| <i>A. parviflora</i> Roxb. ex D.Don  | laghupuṣpaḥ        | Based on small flowers.                              |
| <i>A. persica</i> Boiss.   | phaladakusumaḥ     | Based on fertile florets.                            |
| <i>A. princeps</i> Pamp.   | īśadromā           | Based on puberulent phyllaries.                      |
| <i>A. robusta</i> (Pamp.) Ling & Y.R. Ling                                   | dr̥ḍhataruḥ        | Based on robust tree.                                |
| <i>A. roxburghiana</i> Wall. ex Besser                                       | pakṣavṛntaḥ        | Based on winged petiole.                             |
| <i>A. roxburghiana</i> var. <i>purpurascens</i> (Jacquem. ex Bess.) Hook. F. | vṛntākapisapatraḥ  | Based on purple phyllaries.                          |
| <i>A. roxburghiana</i> var. <i>grata</i> (Wall. ex Besser) Hook.f.,          | sitaromāṁśaḥ       | Based on white tomentose leaf segments benaeth.      |
| <i>A. roxburghiana</i> var. <i>hypoleuca</i> (Edgew.) Pamp.                  | aṇḍabhallāṁśaḥ     | Based on ovate-lanceolate leaf segments.             |
| <i>A. rutifolia</i> Stephan ex Spreng.                                       | romagaṇḍaḥ         | Based on glandular and hairy corolla.                |
| <i>A. salsoloides</i> Willd.   | harikāṇḍaḥ         | Based on greenish-yellow stem.                       |
| <i>A. salsoloides</i> var. <i>paniculata</i> Hook.f.,                        | dr̥ḍhakāṇḍaḥ       | Based on stout stem.                                 |
| <i>A. salsoloides</i> var. <i>wellbyi</i> (Hemsl. & Pearson) Ostenf.         | golamuṇḍaḥ         | Based on globose capitula.                           |
| <i>A. santolinifolia</i> Turcz. ex Krasch.                                   | sandhivṛntaḥ       | Based on articulate petiole.                         |
| <i>A. scoparia</i> Waldst. & Kit.  | ūhanīkaḥ           | Based on broom-like plant.                           |
| <i>A. sieversiana</i> Ehrh. ex Willd.  | pravṛttaphalaḥ     | Based on oblong fruits.                              |
| <i>A. stelleriana</i> Besser   | ghaparicakraḥ      | Based on campanulate involucre.                      |
| <i>A. stracheyi</i> Hook.f. & Thomson ex C.B.Clarke                          | asīmākṣaḥ          | Based on raceme-like synflorescence.                 |
| <i>A. stricta</i> Edgew.   | r̥jumuṇḍakaḥ       | Based on erect capitula.                             |
| <i>A. stricta</i> var. <i>diffusa</i> (Pamp.) Y.R. Ling & M.G. Gilbert       | bhūśāyī            | Based on prostrate lower branches.                   |
| <i>A. tainingensis</i> var. <i>nitida</i> (Pamp.) Y.R. Ling                  | aromaśākhaḥ        | Based on glabrous branches.                          |
| <i>A. thellungiana</i> Pamp.   | vṛntotpatraḥ       | Based on petiolate upper leaves.                     |
| <i>A. thomsoniana</i> (C.B.Clarke) Filatova                                  | bhasmorṇaḥ         | Based on gray woolly-tomentose leaves.               |
| <i>A. tournefortiana</i> Rchb.   | dviradaḥ           | Based on 2-toothed corolla.                          |
| <i>A. tukuchaensis</i> Kitam.  | laghūtparisapatraḥ | Based on smaller outer phyllaries.                   |
| <i>A. velutina</i> Pamp.   | harinmāḍhiḥ        | Based on phyllaries with very faint greenish midrib. |
| <i>A. verlotiorum</i> Lamotte  | kīrṇaromā          | Based on florets with scattered hairs.               |
| <i>A. vestita</i> Wall. ex Besser  | parṇāṅgapatraḥ     | Based on fern-like leaves.                           |
| <i>A. vulgaris</i> L.  | damaṇaḥ            | Based on its suppressing nature for diseases.        |

**Table 2:** Medicinal / Treditonal uses of all Medicinal *Artemisia* with their plant parts used [15, 21, 22, 23]

| Plants name   | Part use  | Medicinal / Treditonal uses   |
|---|---|---|
| <i>Artemisia abrotanum</i> L.                       | Aerial parts and Leaves   | Animal and Insect bite, Cramps, Diarrhea, Edema, Hemorrhage, Infection, Inflammation, Insomnia, Menstrual disorders, Plague, Pyrexia, Respiratory disorders, Skin disorders, Stomach disorder, Urinary tract infection, worm infestations, Wounds.  |
| <i>Artemisia Absinthium</i> L.                      | Whole plant, Aerial shoots, Leaves, Flower, Floral branches and Plant oil | Anemia, Anorexia, Biliou disorders, Brain disorders, Cancer, Cardio-vascular disorder, Cholecystosis, Cold, Colic, Concussions, Diabetes, Diarrhea and dysentery, Digestive disorders, Dysbiosis, Dyspepsia, Ear disorder, Edema, Epilepsy, Gastro-intestinal disorders, Hepatic disorders, Hyperhidrosis, Induration, Infection, Inflammation, Influenza, Injury, Insect bite, Insomnia, Jaundice, Malaria, Male sexual disorders, Menstrual disorders, Motility disorders, Musculo-skeletal disorders, Mycosis, Nervous disorders, Neurasthenia, Pain, Paralysis, Partum disorders, Pyrexia, Rheumatoid arthritis, Skin disorders, Tuberculosis, Ulcer, Venereal diseases, Worm infestation, Wounds |
| <i>Artemisia amygdalina</i> Decne.                  | Leaves  | Cough and Cold, Dermatological disorders, Diabetes, Gastro-intestinal disorders, Hemorrhoids, Menstrual disorders, Neurological disorders, Pain, Pyrexia, Worm infestations   |
| <i>Artemisia annua</i> L.                           | Leaves and Seeds  | Abdominal disorders, Autoimmune disorders, Cancer, Eye disorders, Hemorrhoids, Jaundice, Kidney disorders, Malaria, Neurological disorders, Night sweat, Pyrexia, Skin disorders  |
| <i>Artemisia austroyunnanensis</i> Ling & Y.R. Ling | Leaves  | Skin disease  |
| <i>Artemisia biennis</i> Willd.                     | Leaves and Seeds  | Chest problems, Gastro-intestinal disorders, Gynecological disorders, Obesity, Sores, Worm infestation, Wounds  |
| <i>Artemisia capillaris</i> Thunb.                  | Plant, Shoot, Leaves  | Abdominal disorders, Ague, Cephalgia, Constipation, Ear disorder, Hyperglycemia,  |

|   |  |   |
|---|--|---|
|   | and Flower bud                               | Hypocholesterolemia, Inflammation, Liver disorders, Obesity, Pyrexia, Skin disorders, Tumors, Urinary disorders, Urolithiasis   |
| <i>Artemisia caruifolia</i> Buch. - Ham. ex Roxb.                               | Roots, Leaves and Seeds                      | Abdominal disorders, Alopecia, Asthma, Cold and Cough, Diarrhea, Jaundice, Malaria, Night sweats, Pulmonary disorders, Pyrexia, Skin disorders, Wounds  |
| <i>Artemisia desertorum</i> Spreng.   | Leaves, Whole plant                          | Dysentery, Intestinal worms, Reduce fever, Stomachache, Toothache, Wounds   |
| <i>Artemisia Dracuncululus</i> L.   | Root, Stem and Leaves                        | Abdominal disorders, Animal or insect bites, Anorexia, Arthrosis, Atherosclerosis, Blood disorders, Cancer, Catarrh, Cephalgia, Cold, Dentalgia, Diabetes, Edema, Epilepsy, Eye disorders, General debility, Gynecological disorders, Hepatic disorders, Hiccup, Hypertension, Infection, Insomnia, Mycosis, Nausea, Pyrexia, Rheumatoid arthritis, Skin disorders, Stroke, Tumor, Urinary disorder, Worm infestation   |
| <i>Artemisia dubia</i> Wall. ex Besser  | Aerial parts and Leaves                      | Abdominal disorders, Asthma, Cuts and Wounds, Skin disorders, Ulcers, Vomiting, Worm infestation  |
| <i>Artemisia dubia</i> var. <i>subdigitata</i> (Mattf.) Y.R. Ling               | Whole Plant                                  | Cold and Alleviate pain   |
| <i>Artemisia glauca</i> Pall. ex Willd.   | Aerial parts and Root                        | Bruises and Swelling, Alleviate fever, Rheumatism   |
| <i>Artemisia gmelinii</i> Weber ex Stechm.                                      | Aerial parts, Stem, Leaves, Flower and Fruit | Arthritis, Bronchitis, Cephalgia, Cholecystitis, Cold & Cough, Hemorrhage, Hepatic disorders, Hyperlipaemia, Inflammation, Pain, Pharyngitis, Pyrexia, Skin disorders, Wound  |
| <i>Artemisia hedinii</i> Ostenf.  | Stem, Leaves, Flower and Fruit               | Bile disorder, Inflammation, Jaundice, Pyrexia  |
| <i>Artemisia imponens</i> Pamp.   | Stem, Leaves, Flower and Fruit               | Abdominal disorders, Blood disorders, Inflammation, Sore throat, Swelling   |
| <i>Artemisia incisa</i> Pamp.   | Aerial parts                                 | Dryness of mouth, Fungal infections   |
| <i>Artemisia indica</i> Willd.  | Root, Shoot, Leaves and Flower               | Anorexia, Asthma, Bronchitis, Cephalgia, Cough, Debility, Diarrhea and Dysentery, Dropsy, Ear disorder, Epistaxis, Gastro-intestinal disorders, Gynecological disorders, Hair problems, Hemorrhage, Hepatic disorders, Hysteria, Immunological disorders, Jaundice, Malaria, Male infertility, Measles, Neurological disorders, Oral disorders, Pediatric disorders, Pyrexia, Rheumatism, Skin disorders, Ulcers  |
| <i>Artemisia indica</i> var. <i>elegantissima</i> (Pamp.) Y.R. Ling & Humphries | Whole plant                                  | On the basis of proven pharmacological studies, the plant might be used medicinally.  |
| <i>Artemisia japonica</i> Thunb.  | Aerial parts and Leaves                      | Ague, Bronchitis, Gynecological disorders, Immunological disorders, Musculo-skeletal disorders, Pediatric disorders, Pyrexia, Skin disorders, Wounds  |
| <i>Artemisia keiskeana</i> Miq.   | Whole plant                                  | Bruises, Gynecological disorders, Impotence, Post-partum problems, Rheumatism   |
| <i>Artemisia laciniata</i> Willd.   | Aerial parts and Roots                       | Hysteria, Skin disorders, Wounds  |
| <i>Artemisia lactiflora</i> Wall. ex DC.  | Stem and Leaves                              | Cephalgia, Gynecological disorders, Hepatic disorders, Hypertension, Jaundice, Skin disorders, Viral infections, Wounds   |
| <i>Artemisia lavandulaefolia</i> Nakai  | Whole plant                                  | Abdominal disorders, Asthma, Canker sores, Constipation, Dampness, Fungal infections, Gynecological disorders, Hemostasis, Hepatic disorders, Inflammation, Pain, Pyrexia, Respiratory disorders, Worm infestation  |
| <i>Artemisia macrocephala</i> Jacquem. ex Besser                                | Flowers                                      | Blood disorders, Dermatological disorders, Edema, Musculo-skeletal disorders, Pyrexia, Respiratory disorders, Throat disorders, Tumors, Worm infestations   |
| <i>Artemisia maritima</i> L.  | Roots, Leaves, Flower head and buds          | Alopecia, Animal and Insect bite, Anorexia, Biliary disorders, Cardio-vascular disorders, Cephalgia, Colic, Convulsion, Cough, Dentalgia, Diarrhea, Edema, Epilepsy, Eye disorders, Galactorrhea, Gastro-intestinal disorders, Hepatic disorders, Inflammation, Leprosy, Malaria, Muscle strain, Obesity, Pain, Peripheral neuropathy, Polydipsia, Pyrexia, Respiratory disorders, Skin disorders, Spleen disorders, Swelling, Tumours, Urinary disorder, Vomiting, Worm infestation, Wound |
| <i>Artemisia minor</i> Jacquem. ex Besser                                       | Leaves and Flowers                           | Dermatological disorders, Diabetes, Dysentery, Dyspepsia, Hepatic disorders, Pyrexia, Rheumatism  |
| <i>Artemisia myriantha</i> Wall. ex Besser                                      | Aerial parts                                 | Cancer, Worm infestations   |
| <i>Artemisia nilagirica</i> var. <i>septentrionalis</i> Pamp.                   | Leaves                                       | Worm infestations   |
| <i>Artemisia pallens</i> Wall. ex DC.   | Whole plant                                  | Diabetes, Hypertension, Infections, Measles, Menstrual disorders, Mental problems, Pyrexia, Respiratory disorders, Worm infestations, Wounds  |
| <i>Artemisia parviflora</i> Roxb. ex D. Don                                     | Stem, Leaves, Fruits and Seeds               | Abdominal disorders, Convulsions, Diabetes, Hypertension, Pain, Pharyngitis, Pyrexia, Skin disorders, Vaginitis, Worm infestation, Wound  |
| <i>Artemisia persica</i> Boiss.   | Plant, Leaves and Flowers                    | Abdominal disorders, Cephalgia, Diarrhea, Ear disorders, Epistaxis, Infection, Inflammation, Pyrexia, Respiratory disorders, Rheumatism, Skin disorders   |
| <i>Artemisia princeps</i> Pamp.   | Roots, Stems and Leaves                      | Asthma, Cancer, Cephalgia, Circulatory disorder, Cold and Cough, Dentalgia, Digestive disorders, Eye disorders, General debility, Gynecological disorders, Hemorrhage, Hemorrhoids, Hypertension, Infection, Inflammation, Jaundice, Malaria, Osteoarthritis, Pain, Pyrexia, Skin disorders, Ulcer, Urinary disorders, Venereal disorders   |
| <i>Artemisia roxburghiana</i> Wall. ex Besser                                   | Whole plant, Roots and Leaves                | Abdominal disorders, Cephalgia, Diabetes, Eczema, Hemorrhage, Hepatitis, Infection, Malaria, Pyrexia, Rheumatism, Skin disorders, Worm infestations, Wounds   |
| <i>Artemisia salsoloides</i> Willd.   | Shoot  | Gastro-intestinal disorders   |
| <i>Artemisia scoparia</i> Waldst. & Kit.  | Leaves, Shoot and Seed                       | Burn, Ear disorders, Gastro-intestinal disorders, Hepatic disorders, Inflammation, Menstruation, Nervous disorders, Pain, Pyrexia, Respiratory disorders, Rheumatism, Spleen disorders, Urogenital disorders, Wounds.   |

|  |                           |  |
|--|---------------------------|--|
| <i>Artemisia sieversiana</i> Ehrh. ex Willd. | Roots and Leaves          | Cancer, Cardiac disorders, Dysentery, Dropsy, Gout, Gynecological disorders, Hemorrhage, Jaundice, Skin disorders, Spleen disorders, Swelling, Worm infestation, Wounds.   |
| <i>Artemisia stelleriana</i> Besser          | Leaves, Stem              | Promote the growth of hair, Stimulate mental faculties, Ulcers.  |
| <i>Artemisia stricta</i> Edgew.              | Leaves and Inflorescence  | Anti-spasmodic,  |
| <i>Artemisia tournefortiana</i> Rchb.        | Whole plant               | Cancer, Fever, Inflammation  |
| <i>Artemisia verlotiorum</i> Lamotte         | Whole plant               | Anorexia, Blood disorders, Cold, Epistaxis, Flu, Fatigue, Gout, General debility, Gynecological disorders, Hypotension, Pyrexia, Rheumatoid arthritis, Skin disorders  |
| <i>Artemisia vestita</i> Wall. ex Besser     | Leaves                    | Abdominal disorder, Arthritis, Dyspnea, Pediatric problems, Skin disorders, Sprain, Worm infestation   |
| <i>Artemisia vulgaris</i> L.                 | Roots, Leaves and Flowers | Abdominal disorders, Anemia, Animal and insect bite, Anorexia, Ascites, Asthenia, Brain disorders, Cancer, Cardio-vascular disorder, Cephalgia, Cholelithiasis, Cholera, Cold and Cough, Colic, Convulsions, Edema, Emesis, Epilepsy, Eye disorders, Gastro-intestinal disorders, General debility, Gynecological disorders, Hematemesis, Hemorrhage, Hepatic disorders, Hydrocephalus, Hyperglycemia, Immunodepression, Impotence, Induration, Inflammation, Insomnia, Leprosy, Leukorrhea, Menstrual disorders, Muscle spasms, Nervous disorder, Nervousness, Obesity, Osteomalacia, Pain, Pediatric, Poisoning, Postpartum period, Psychological disorder, Pyrexia, Renal calculi, Respiratory disorder, Rheumatoid arthritis, Scurvy, Sexual disorders, Skin disorders, Somnambulism, Spleen disorders, Tuberculosis, Ureteral disorders, Urinary disorders, Venereal diseases, Water retention, Worm infestation, Wound |

## Result & Discussion

During present study 76 species of *Artemisia* have been recorded in which 58 species and 18 infraspecific taxon are included. These species are widely distributed in Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, northern part of West Bengal, Jammu & Kashmir, Himachal Pradesh, Uttarakhand in Northern and Western Himalaya and Nilgiri hills area in South India, occurring from slopes, river banks, roadsides, valleys, canyons, forest margins, near lake, shores, stream banks, ditches, mud flats in very sandy soils, grasslands, shrublands, etc., at a low elevation of 100m (*Artemisia princeps* Pamp.) to higher elevation of 6000 m. (*Artemisia campbellii* Hook. F. & Thomson ex C.B. Clarke). Phytoetymological analysis of the paper categorized into 4 groups *i.e.* 48 (61%) based on their meanings, 13 (17%) based in the honour of any persons, 13 (17%) phytoetymologies are based on the name of locality and 04 (5%) are based on resemblance to the plants (Fig. 1). For the first time Vedic names of all species are given as per *World Herbal Encyclopaedia* by Balkrishna (2022a) and *Vedic Plant Taxonomy* (under publication) which is based on ancient Sanskrit language (Table 1).

It is generally accepted that an integrated strategy balancing *in-situ* and *ex-situ* conservation measures and providing first

updated guidance on the conservation of medicinal plants can be used to achieve the conservation of medicinal plants (and biodiversity in general). These suggestions provide a framework for the safe and responsible use of medicinal herbs. These recommendations serve as a framework for the sustainable use of medicinal plants and their protection [24, 25]. Genus *Artemisia* is being overexploited due to the rising demands of the pharmaceutical industry and other anthropogenic activities because it is a source of many bioactive chemicals. *Artemisia* is a highly medicinal genus and about 43 species and varieties aerial parts, roots, stems, leaves, flowers, flower buds, inflorescence and seeds are used as medicinally and traditionally (Table 2) and about 36 species are used traditionally and economically such as for making perfumes, soaps, etc. (Fig. 2). According to IUCN Red list version 2022-1 *Artemisia laciniata* Willd. Has been marked as *near threatened* and *Artemisia vulgaris* L. has been marked as *least concern*. Among all the species, *A. Absinthium*, *A. amygdalina*, *A. annua*, *A. laciniata*, *A. vulgaris*, *A. scoparia*, *A. sieversiana* and *A. vestita* took much attention of the scientists due to their highly medicinal properties. Morphological features of some species of the genus *Artemisia* are given in Fig. 2.

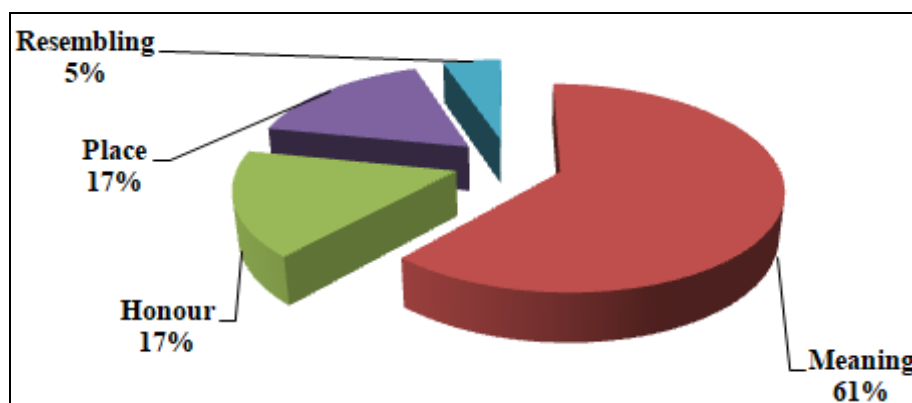
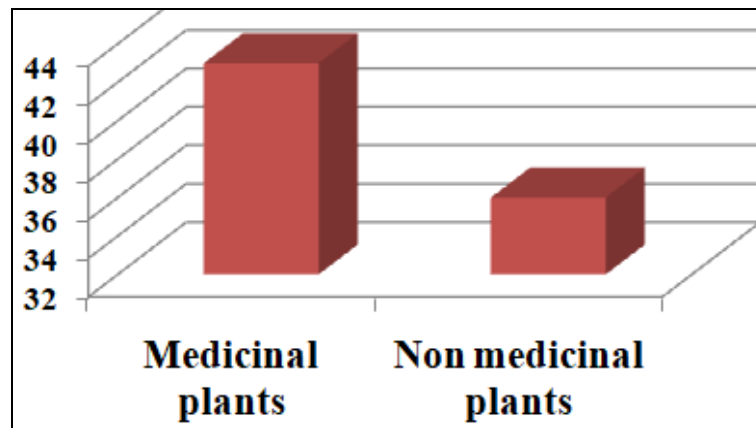


Fig 1: Comparative study of phytoetymologies of species





**Fig 2:** Numbers of medicinal and non-medicinal plants

### Conclusion

Based on the present study, it is concluded that in Indian context *Artemisia* species are distributed in most of the parts of India and nearly all the medicinal documents dealing with herbs attest to the wide spectrum of qualities possessed by the *Artemisia* genus. Because of the pharmaceutical industries' enormous needs, dependence, and spectacular development in popularity we must assure widespread cultivation of *Artemisia* using conventional and micro-propagation procedures in order to maintain output and availability. *Ex-situ* and *in-situ* conservation techniques, as well as the cultivation of these plant species, are required in this situation to preserve the ecological balance, traditional knowledge, and local peoples' means of subsistence. In order to ascertain the medicinal properties of these species further critical study of these plants is required, the authors so expect that this work will be useful to ethnobotanists, phytochemists, and pharmacologists.

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### Conflict of Interest

Authors declare that they have no conflict of interest.

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