



**UTILITARIAN ASPECTS OF DURGAWADI SACRED GROVE TAHASIL JUNNER  
DISTRICT PUNE, MAHARASHTRA INDIA**

**Salman Shaikh and Mulay J. R**

Department of Botany New Arts, Commerce & Science College, Ahmednagar, India

**ARTICLE INFO**

**Article History:**

Received 13<sup>th</sup> December, 2018

Received in revised form 11<sup>th</sup>

January, 2019

Accepted 8<sup>th</sup> February, 2019

Published online 28<sup>th</sup> March, 2019

**Key words:**

sacred grove, ethno medicine.

**ABSTRACT**

Present work is the result of intensive and exhaustive ethnobotanical explorations of Durgawadi sacred grove is a small Village/hamlet in Junnar Taluka in Pune District of Maharashtra State, India. It comes under Hatvij Panchayath. It belongs to Desh or Paschim Maharashtra region. It belongs to Pune Division. Indigenous people use several plants for medicine, food, house construction and other purposes. Their life is clearly related to the plants growing in nearby areas. Although, medicinal uses of plants reported in the present work is less known or new and infact are much less than what still remains with indigenous people. Ethnobotanical exploration during the period from 2018 to 2019 in the present study area lead to the following conclusions.

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**INTRODUCTION**

Since ancient time, human beings have always been mostly depended on plant resources for their basic needs like food, medicine, fiber, fodder, shelter, etc. Formerly, they were directly dependent on plants, but due to modernization and with advancement of science and technology this dependence on plants as a direct source has been slightly reduced. All the same, the tribal's and other aboriginal people, who have traditionally lived in the forest's continue to remain fully dependent on plants for their survival. The recent rediscoveries of certain remarkable uses of plants gave new life to this ancient science of ethnobotany. Several plants (eg. cocoa, maize, rubber, etc.) used today, were originally identified and developed through indigenous knowledge, the chemical constituents like tranquilizers, rescinnamine and reserpine have been obtained from the roots of *Rauvolfia serpentina*, used in India for more than a thousand years in folk medicine for snake bite (Maheshwari, 1996). A recent drug, 'Jeevani' is being produced from the plant *Trichopus zeylanicus* ssp. *travancoricus*, which is having strong energy enhancing properties. The drug is seen as a rival to the South Korean root ginseng (*Pinax ginseng*). Other examples where ethnomedicines have provided lead in the development of drugs used in modern system of medicine are cocaine, morphine, quinine, colchicines, atropine, ephedrine, codeine, emetin, caffeine, reserpine, vinblastine, gugulin and taxol, etc. (Mehrotra Shanta, *et al.*, 1996). The importance of primitive attempts in ethnobotany for medicinal uses of plants were

based on speculations only but in present age such medicinal plants have great importance due to the fact that many alkaloids and other important chemicals are being isolated from plants by using better techniques of chemical analysis and isolation methods, however, much work has still to be done, as new medicinal uses of plants are being reported continuously by several workers from different localities.

Sacred groves comprise of patches of forests or natural vegetation – from a few trees to forests of several acres – that are usually dedicated to local folk deities or tree spirits (Vanadevatais). These spaces are protected by local communities because of their religious beliefs and traditional rituals that run through several generations.

*In the words of Botanists M. Gadgil and V.D. Vartak (2002),*

“Sacred Groves are tracts of the most valuable of legacies from the primitive practices of nature conservation.”

“Sacred Groves are tracts of sacred forests which have been completely or nearly completely immune from human interference on grounds of religious beliefs.”

“A Sacred Grove is a patch of vegetation ranging in extent from a few trees to forty hectares or more, which is left undisturbed because of its association with some deity. In its original form, this protection forbade any interference with the biota of the grove whatever, and not even leaf litter was removed from it, nor was grazing or hunting permitted within the grove. Even when the protection has become less stringent, any removal of live wood continues to be taboo. The groves therefore represent a sample of the vegetation in its climax state.”

\*Corresponding author: **Salman Shaikh**

Department of Botany New Arts, Commerce & Science College,  
Ahmednagar, India

“A forest preserved on religious grounds is known as a “Devrai” or “Dev-rahati” and is assumed to be an abode of the Forest God.

The degree of sanctity of the sacred forests varies from one grove to another. In some forests even the dry foliage and fallen fruits are not touched. People believe that any kind of disturbance will offend the local deity, causing diseases, natural calamities or failure of crops. For example, the Garo and the Khasi tribes of northeastern India completely prohibit any human interference in the sacred groves. In other groves, deadwood or dried leaves may be picked up, but the live tree or its branches are never cut. For example, the Gonds of central India prohibit the cutting of a tree but allow fallen parts to be used.

#### **Classification of Sacred Groves**

**Traditional Sacred Groves** – It is the place where the village deity resides, who is represented by an elementary symbol

**Temple Groves** – Here a grove is created around a temple and conserved.

Groves around the burial or cremation grounds.

#### **Threats to the Sacred Groves**

The threats vary from one region to the other and even from one grove to the other. But the common threats identified are:

Disappearance of the traditional belief systems, which were fundamental to the concept of sacred groves. These systems and their rituals are now considered mere superstition.

Sacred groves in many parts of our country have been destroyed due to rapid urbanization and developmental interventions such as roads, railways tracks, dams including commercial forestry. Encroachment has led to the shrinkage of some of the largest groves in the country.

- Many groves are suffering due to ‘Sanskritisation’ or the transformation of the primitive forms of nature worship into formal temple worship.
- Invasion by exotic weeds such as Eupatorium odoratum, Lantana camara and Prosopis juliflora is a serious threat to some groves.
- Pressures due to increasing livestock and fuelwood collection.

**Socio-cultural Importance:** In addition to the ecological importance, the sacred groves have important sociocultural functions to the indigenous communities. The relationship between cultural and biological diversity in India has evolved as a result of close relationship between two. The biodiversity has been conserved and survived against the forces of destruction due to strong bondage between sociocultural values attached to the sacred groves which happen to be the store house of biodiversity.

#### **Distribution of Sacred Groves in India**

In India the sacred groves are found all over the country especially in the regions inhabited by indigenous communities, particularly along the western Ghats in the states of Maharashtra, Kerala, Karnataka and Tamilnadu. In North-east India most of the sacred groves has been reported from Arunachal Pradesh, Meghalaya and Manipur. Although there has been no comprehensive survey of the sacred groves in the entire

country approximately 13,720 sacred groves have been documented so far. Experts estimate the actual number could be much higher in the range of 100,000 – 150,000.

#### **In Maharashtra**

Sacred groves are found in tribal as well as non-tribal areas. The sacred groves in the western part are called Devrai or Devrahati whereas in the east, the Madiya tribals call them Devgudi.

2820 sacred groves have been documented in the state. Some of the deities to whom these groves are dedicated are Maruti, Vaghoba, Vira, Bhiroba, Khandoba and Shirikai.

#### **Objectives of Present Work**

1. Survey of the different areas within Durgawadi Sacred groves for collection, identification and documentation, information of plants used for food, medicine, fodder, etc.
2. Collection of plants used by tribals with special reference to wild relatives of Cultivated plants.

#### **Study Area**

Durgawadi is a small Village/hamlet in Junnar Taluka in Pune District of Maharashtra State, India. It comes under Hatvij Panchayath. It belongs to Desh or Paschim Maharashtra region . It belongs to Pune Division . It is located 88 KM towards North from District head quarters Pune. 130 KM from State capital Mumbai Durgawadi is surrounded by Ambegaon Taluka towards South , Akole Taluka towards North , Khed Taluka towards South , Murbad Taluka towards west . Junnar , Manchar , Sangamner , Talegaon Dabhade are the near by Cities to Durgawadi.

#### **By Road**

Ahemadnagar-----Takali Dhokeshwar----- Alephata----- Narayangaon----- Junner-----Somatwadi-----Bejwat----- Khajgoan-----Surale----Ghogarewadi-----Aaptale-----Shinde-----Sonawale-----Ingloon-----Aambe-----Hatvij----- Durgawadi ----- Junner----- Narayangaon----- Alephata----- Takali Dhokeshwar -- -----Ahemadnagar

Junnar are the nearby by towns to Durgawadi having road connectivity to Durgawadi

Durgawadi Plateau The Durgawadi Plateau (Image 3) is one of the largest and florally rich basalt outcrops in Pune District; located 30km from Junnar Town at the south-west corner in Junnar Taluka between 190 11'37.99"N & 730 41'42.57"E to 190 13'3.59"N & 730 38'33.92"E with an elevation that ranges from 1037–1156 m. This plateau spreads over an area of 2.8793km<sup>2</sup> out of a total geographic area of 16.28km<sup>2</sup> of village Ambe-Hatvij and its ‘wadis’, Pimparwadi and Durgawadi. RO area is mainly basalt with a few pockets of lateritic soil supporting small forest patches out of a total reserve forest area of 2.11km<sup>2</sup> . Most of the areas of RO are private lands extensively cultivated for rice and ‘nachni’ (finger millet). There are four sacred groves on the plateau with a good broad leaved montane forest community of large trees comprising Mangifera indica, Memecylon umbellatum, Xantolis tomentosa, Atalantia racemosa and Syzygium species. The climate at Durgawadi Plateau is cool and humid with an average minimum and maximum temperature of 110 C and 380 C, respectively, and an average annual rainfall of 1500–2000 mm or even higher.

List of Plant Which Are Found in Durgawadi

Sr.No	Botanical Name	Vernacular Name	Family	Plant part used	Mode of administration
1.	<i>Alternanthera sessilis</i> (L.) R. Br. Ex DC.	Chimut Kata	Acanthaceae	Leaves	Internal
2.	<i>Eranthemum purpurascens</i>	Gulsham	Acanthaceae	Seed	Internal
3.	<i>Haplanthodes verticillata</i> (Roxb.) Majumdar.	Jhankara	Acanthaceae	Root	Internal
4.	<i>Hygrophila schulli</i> (Buch.-Ham.) M.R. & S. M. Almeida.	Kolshinda, Talimklhana	Acanthaceae	Leaves, Seed	Internal
5.	<i>Leonotis nepetifolia</i> (L.) R.Br.	Dipmal	Acanthaceae	Whole Plant	External, Internal
6.	<i>Lepidagathis cristata</i> Willd.	Bhiugend	Acanthaceae	Inflorescenes	External
7.	<i>Aghave americana</i> L. var. <i>marginata</i>	Ghaypat	Aghavaceae	Leaves, Root	Internal
8.	<i>Pimpinella heyneana</i> (DC) Kurz.	Dongar Jera	Apiaceae	Whole Plant	Internal
9.	<i>Pinda concanensis</i> (Dalz.) Mukh. & Const.	Pand	Apiaceae	Root, Seed	Internal
10.	<i>Cryptostegia grandiflora</i> R. Br.	Kawli	Apocynaceae	Leaves, Root	External, Internal
11.	<i>Hemidesmus indicus</i> (L.) R. Br.var. <i>indicus</i>	Ananthamoola	Apocynaceae	Root	Internal
12.	<i>Leptadenia reticulata</i> (Retz.) Wt. & Arn.Spartium. Wt.	Jivanti, Jhumka	Apocynaceae	Leaves, Root	External
13.	<i>Asclepias curassavica</i> L.	Haladi Kunku	Asclepiadaceae	Leaves	Internal
14.	<i>Calatropis procera</i> I (Ait.) R. Br. Ssp.C.hamiltonii .	Rui	Asclepiadaceae	Latex, Leaves	External
15.	<i>Calotropis gigantea</i> (L.) R. Br.	Rui	Asclepiadaceae	Latex, Leaves	External
16.	<i>Acanthospermum hispidum</i> DC.	German kata	Asteraceae	Root	Internal
17.	<i>Ageratum conyzoids</i> L.	Ghanera, ossadi	Asteraceae	Leaves	Internal
18.	<i>Echinops echinatus</i> Roxb.	Bramhadandi	Asteraceae	Flower, Root	Internal
19.	<i>Glossocardia bosvallea</i> (L.f.) DC	Khadak shepu	Asteraceae	Whole Plant	Internal
20.	<i>LAGASCEA mollis</i> Cav.	Silk leaf	Asteraceae	Whole Plant	Internal
21.	<i>Laggera alata</i> (D.Don) Sch.	Lumara	Asteraceae	Leaves	Internal
22.	<i>Sphaeranthus indicus</i> L.	Gorakhmundi	Asteraceae	Whole plant	External
23.	<i>Tridax procumbens</i> L.	Tantani	Asteraceae	Leaves	External, Internal
24.	<i>Xanthium strumarium</i> L.	Ghagara, Landaga	Asteraceae	Leaves, Root	Internal
25.	<i>Impatiens acaulis</i> Arn. Var. <i>acaulis</i> .	Panterada	Balsaminaceae	Leaves, Flower	External
26.	<i>Begonia crenata</i> Drynad.	Ambadi, Mutia	Begoniaceae	Leaves	Internal
27.	<i>Cynoglossum zeylanicum</i> (Vahl ex Hornem.)Thunb . ex Lehm.	Lakshmana, Lichardi	Boraginaceae	Whole Plant	External Internal
28.	<i>Paracrayopsis coelesina</i> (Lindl.) R. Mill.	Nissurdi	Boraginaceae	Whole plant	External
29.	<i>Trichodesma indicum</i> Lehm.	Chota Kalpa	Boraginaceae	Aerial Part	Internal
30.	<i>Opuntia dillenii</i> (Ker. Gawl.) L. D. Benson.O.S. var. <i>dillenii</i>	Nagphana, chapel	Cactaceae	Flower, Fruit, Stem	Internal
31.	<i>Caesalpinia decapetala</i> (Roth.) Alst.	Chilar	Caesalpinaceae	Root, Leaves	External, Internal
32.	<i>Terminalia chebula</i> Retzr.	Hirda	Combretaceae	Fruit	Internal
33.	<i>Commelina benghalensis</i> L.	Kena	Commelinaceae	Leaves	External
34.	<i>Cynotis tuberosa</i> (Roxb.) J.A & J. H.Schult. var. <i>adscendens</i>	Abhali	Commelinaceae	Root	Internal
35.	<i>Convolvulus arvensis</i> L.	Chandvel	Convolvulaceae	Root	Internal
36.	<i>Ipomoea cairica</i> (L.)Sweet.	Garvel	Convolvulaceae	Seed	Internal
37.	<i>Ipomoea carnea</i> Jacq. Ssp. <i>Fistulosa</i>	Besharam	Convolvulaceae	Leaves	External
38.	<i>Ipomoea obscura</i> (L.) Kev.-Gawi.	Pilibonvari	Convolvulaceae	Leaves, Root	Internal
39.	<i>Drosera indica</i> L.	Gavati davbindu	Droseraceae	Whole Plant	Internal
40.	<i>Acalypha indica</i> (L.)	Khokali	Euphorbiaceae	Leaves	Internal
41.	<i>Chrozophora rottleri</i> (Geis.) Juss. ex Spreng.	Suryavarti	Euphorbiaceae	Whole plant	External Internal
42.	<i>Coldenia procumbens</i> L.	Tripunkhi	Euphorbiaceae	Leaves	Internal
43.	<i>Jatropha gossypifolia</i> L.	Vilayati errand, Rajanjoti	Euphorbiaceae	Leaves Stem	External
44.	<i>Ricinus communis</i> L. Erand.	Erand	Euphorbiaceae	Seed Oil	External
45.	<i>Mucuna pruriens</i> (L.) DC.	Velvet bean, Khaj kuhiri	Fabaceae	Seed, Root	Internal
46.	<i>Canscora diffusa</i> (Vahl.) R. Br.ex R.& S. var. <i>diffusa</i> .	Kilwar	Gentianaceae	Whole Plant	Internal
47.	<i>Enicostema axillare</i> (Lam.)Raynal.	Nai	Gentianaceae	Leaves, Root	Internal
48.	<i>Exacum lawii</i> Cl.	Lahan chirayat	Gentianaceae	Whole Plant	Internal
49.	<i>Curculigo orchoides</i> Gaertn.	Talmuli, kalimusali	Hypoxidaceae	Rhizome	Internal
50.	<i>Anisomeles heyneana</i> Benth.	Gopali	Lamiaceae	Leaves	Internal
51.	<i>Colebrookea oppositifolia</i> J. E. Smith.	Bhamini	Lamiaceae	Leaves, Root	External Internal
52.	<i>Hyptis suaveolens</i> (L.) Poit.	Darptulas	Lamiaceae	Whole Plant	External, Internal
53.	<i>Lavandula bipinnata</i> (Roth.) O. Ktze. Var. <i>bipinnate</i>	Ghodgui	Lamiaceae	Leaves, Flower	External, Internal
54.	<i>Leucas aspera</i> (Willd.) Link.	Chota hulka	Lamiaceae	Leaves	Internal
55.	<i>Leucas longifolia</i>	Hulka	Lamiaceae	Leaves	Internal
56.	<i>Leucas Stelligera</i> Wall. Ex.Benth	Burumbi	Lamiaceae	Leaves	Internal
57.	<i>Pogostemon deccanensis</i> (Panigrhahi) Press. Bull. Brit. Mus.	Jambhali manjeri	Lamiaceae	Leaves	Internal
58.	<i>Gloriosa superba</i> L.	Flame lily, Kalalawi	Lilliaceae	Leaves, Tuber	Internal
59.	<i>Ammania bacifera</i> L.	Bharjamabal	Lythraceae	Whole Plant	Internal

60	<i>Woodfordia fruticosa</i> (L.) Kurz.	Dhayati	Lythraceae	Leaves, Flower	External, Internal
61	<i>Urena lobata</i> L. subsp. <i>Lobata</i>	Ranbhendi	Malvaceae	Root, Leaves	External
62	<i>Memecylon umbellatum</i> Burm.F. var. <i>umbellatum</i> .	Anjani	Melastomaceae	Leaves, Bark	External, Internal
63	<i>Azadirachta indica</i> Juss.	Neem	Meliaceae	Whole plant	External, Internal
64	<i>Melia azedarach</i> L.	Bakan, bead tree	Meliaceae	Leaves, Bark, Flower	External, Internal
65	<i>Habenaria grandifloriformis</i> Blatt. & Mc Cann.	Chichurkanda	Orchidaceae	Whole plant	Internal
66	<i>Habenaria marginata</i> Coleb. Ex Hook.	Pivali habeamari	Orchidaceae	Tuber	Internal
67	<i>Oxalis corniculata</i> L. var. <i>corniculata</i>	Ambushi	Oxalidaceae	Whole Plant	Internal
68	<i>Argemone mexicana</i> L.	Bilayat	Papavaceae	Whole Plant	External
69	<i>Plumbago zeylanica</i> L.	Chitrak	Plumbaginaceae	Leaves	External
70	<i>Persicaria glabra</i> (Willd.)	Sheral	polygonaceae	Leaves	Internal
71	<i>Anagallis arvensis</i> Hook.f. var. <i>caerulea</i>	Randraksh	Primulaceae	Whole Plant	External, Internal
72	<i>Clematis heynei</i> M. A. Rau.	Ranjai	Ranunculaceae	Whole Plant	External
73	<i>Neanotis foetida</i> (Hook.f.) W.H. Lewis.	Montholini	Rubiaceae	Whole Plant	Internal
74	<i>Santalum album</i> L.	Chandan	Santalaceae	Whole Plant	Internal
75	<i>Sopubia delphinifolia</i> (L.) G. Don.	Dudhali	Scrophulariaceae	Stem	Internal
76	<i>Striga gesnerioides</i> (Willd.) Vatke. var. <i>gesnerioides</i> .	Bhuchneri	Scrophulariaceae	Flower	External
77	<i>Evolvulus alsinoides</i> (L.) L.	Vishnukant	Solanaceae	Whole Plant	Internal
78	<i>Nicandra physalodes</i> (L.) Gaertn.	Ranpopati, Dhodana	Solanaceae	Leaves	External
79	<i>Solanum nigrum</i> L.	Kanguni	Solanaceae	Whole plant	External, Internal
80	<i>Withania somnifera</i> (L.) Dunal.	Ashwagandha	Solanaceae	Root	Internal
81	<i>Gnidia glauca</i> (Fresen.) Gilg.	Rametha	Thymelaeaceae	Leaves, Root,	Internal
82	<i>Rotheca serrata</i>	Bharangi	Verbenaceae	Leaves, Root	Internal
83	<i>Vitex negundo</i> L.	Nirgudi	Verbenaceae	Leaves	External, Internal
84	<i>Curcuma psemomontana</i> Grah.	Ranhalad	Zingiberaceae	Rhizome	External, Internal
85	<i>Zingiber neesatum</i> (Grah.) Ramam.	Ranale	Zingiberaceae	Rhizome	External, Internal

## METHODOLOGY

List of plants is prepared by consulting the literature and based on the own observations in the Durgawadi Junner tahesil pune district. The utility data presented here is based on personal interviews and observations of informants. The indigenous knowledge of local people regarding plants is gathered by intensive ethno botanical explorations. The area was visited annually for 10-12 times during the 2018 to 2019 for covering different localities of Durgawadi Junner tahesil pune district.

**Informants:** the medicine men, local healers, village heads and old experienced and knowledgeable men and women were interviewed. During the field survey, for plant collection and documentation of data, the informant accompanied the author. Sometimes more than one informant was included in the team. Each medicinal and edible use of the plant has been confirmed and verified during different visits to different localities in the area and even with the same informants on different occasions. The uses are considered valid if at least 2 informants have similar comments about the uses of the plant. For getting close to the local people and to win their confidence the author participated in their marriages, festivals, social events, etc. which was of great use in observing their usage of various things.

During the field work 2-3 voucher specimens of each ethno botanically important plant and plant part used in medicine were collected and numbered. The voucher specimens were made mostly at flowering or fruiting stage according to the standard methods (Jain & Rao, 1977).

Their description, ethno botanical uses and other details were recorded in the field book and in ethno botany data sheets, which is based on Jain (1995). Collected plant specimens were identified with the help of keys to families, genera and species provided in standard floras like Pradhan and Singh (1999), Cooke (1958), Sharma *et al.* (1996), Singh *et al.* (2000 & 2001), etc.

Altogether 85 plant species used by local people for different purposes have been enumerated and arranged in families according to Bentham and Hooker's (1868-1883) system of classification with slight adjustment according to their present delimitation.

The genera under each family and species under each genus are arranged alphabetically for the sake of convenience. The citation includes the correct botanical name followed by author citation. A brief description of the species is given after citation, local name and family name.

### Abbreviations Used in the Text

Anon. : Anonymous.

Bk : Bark.

Ca : *Circiter*.

cm : Centimeter.

distrib. : Distribution of collections with field numbers.

Ed. : Edible.

*et al.* : *et alii*.

etc. : *et cetera*.

fl : Flower.

Fls. : Flowering period.  
fr : Fruit.  
Frts. : Fruiting period.  
Illus. : Illustration.  
ha : Hectare.  
Infl : Inflorescence.  
km : Kilometer/s  
la : Latex.  
lf : Leaf.  
m : meter.  
Mi : Mile/s  
mm : millimeter.  
Med. : Medicinal.  
Misc. : Other (plant uses except medicinal and edible uses).  
*Op. cit.* : *Opere citato*. pd : Pod.  
Plt / wp : Whole plant.  
rh : Rhizome.  
rt : Root.  
sd : Seed.  
sq km : Square Kilometers.  
sps : Species.  
ssp : Sub species.  
st : Stem.  
tu : Tuber.  
var. : Variety.  
Vet. : Veterinary  
wd : Wood..

#### Enumeration

##### Ranunculaceae

*Clematis heynei* A. S. Rao in Fl. India 1:67. 1993. *C. triloba* Heyne in ex Roth, Nov.pl. Sp. 251.1821 non Thub. 1794; Hook. f. Thoms. in Hook. f. Fl. Brit. India 1: 3. 1872; Cooke, Fl. Pres. Bombay 1: 2.1958 (Repr.ed). '*Morvel*', '*Ranjai*'. Climbers, stems villous. Leaves simple or ternate 1-3 lobed or entire, leaflet rounded or cordate at base acute at apex. Flowers in corymbose panicle, bracts foliaceous ; sepals pubescent outside achene 0.3 X 0.12 cm, ovoid compressed hairy with feathery tails up to 4cm.

*Fls. & Frts*: Septmber –December.

*Distrib*: Frequent in open field and hill slopes

*Uses*:

Med

1. Itch: leaf paste applied to treat itching.
2. \*Wounds: Leaf extract used as poultice to treat wounds.

*Literature*: Jain, 1991 –(lf) itch.

##### Papaveraceae

*Argemone mexicana* L. Sp. Pl. 508,1753 Hook f. & thoms f. Fl.Ind Hook. Fl. Brit. India 1:117.,1872; Cook, Fl. Pres. Bombay 1:29.1958. Jain, Dict. Ethno. 26. 1991. '*Bilayat*, '*Pivala dhotra*'.

Herbs 0.5-1.5m high, prickly grayish-green Leaves pinnatifid segments 5-10 x 2.5-6cm, margins spiny glaucous. Flower 2.5-6.0cm across, yellow bracteates solitary, axillary or terminal. Capsules 2.0-3.5 cm long oblong or oblong elliptic seeds blakish-brown reticulate scrobiculate.

*Fls. & Frt s*: Throughout the year.

*Distrib*: Frequent in open field and hill slopes

#### Uses

##### Med

1. \*Wounds: Plant paste applied externally for healing wound.
2. Tooth decay: Seed paste applied on affected tooth.
3. Jaundice: Spines of the leaves are removed and these are made into paste This paste is applied to eyes in low quantity twice a daily for 3 days.
4. Hernia: One tea cup extract of handful root bark with *Cuminum cyminum* seed powder and sugar . One tea spoon taken orally once a day early morning for three days.
5. Arthritic pain : Whole Plant paste warmed and applied externally on joints.

Vet: \*Swelling: 200 ml juice of 50gm whole plant given orally once a day for three days and paste applied externally.

Ed.: Vegetable: stem of this is chopped to remove prickles and cooked.

*Literature*: Jain.1991-(st) vegetable, (sd) toothache, (latex) jaundice.

##### Malvaceae

*Urena lobata* L. ssp. *sinuata* (L.) Borssum in Blumea 14:142: 1966; Jain, Dict. Ethn. 183. 1991. *Urena sinuata* LSP. PL. 692.1753. Mast. in Hook. f. Fl. Brit. India 1:329.1874; Cook, Fl. Pres. Bombay 1:106.1958 (Repr.ed). '*Ran-kapas*'.

Under shrubs up to 30- 50 cm. Tall Leaves 2.5-6.5 x 2-5.0. cm ovate cordate at base, irregularly 3-5 lobed below the middle lobes dilated upwards, Margins sharply serrate, glabrous, Flowers solitary, axillary, corolla pink with purple centre, capsule echinate, hairy 1-seeded seeds wedged-shaped, black.

*Fls. & Frts*: July- December.

*Distrib*: Frequent in waste places along road side and near fields. Bhandardara frequent on hill slopes and along roadside. DCH – 1648.

#### Uses

##### Med

For healthy gums: \*Toothbrush; stem cutting used for brushing teeth for healthy gum.

Misc: Branching used for making brooms.

*Literature*: Kulkarni and Kumbhojkar,1992-(bk) cordage

##### Oxalidaceae

*Oxalis corniculata* L. Sp. Pl. 435. 1753; Edgew. & hook. f. in Hook. f. FL. Brit. India. 1:436: 1874; Cooke, FL. Pres. Bombay 1:177: 1958 (Repr.ed). Jain, Dict. Ethno. 136. 1991. '*Ambushi*'.

Herbs, with procumbents stem. Leaves palmately 3-foliolate; leaflets 1.2-1.5X1.0-1.3cm, obcordate, cuneate at base ; petioles 3-7cm long. Flower yellow, in subumbellate, axillary cymes, peduncles 4-7cm long. Capsules ca. 1.5 cm long, linear-oblong, 5-angled, shortly beaked, tomentose. Seeds numerous, ovoid.

*Fls & Frts*.: September-May.

**Uses**

**Med**

1. \*Urinary tract diseases: The whole plant is wrapped in banana leaves and cooked under steam. Thereafter juice extracted by squeezing the same, pinch of salt is added and is taken after meals.
2. Jaundice: A teaspoonful of fresh juice of the whole plants mixed with butter milk made of cowmilk is taken once a day till cure.
3. Wounds: Whole plant paste is applied on wounds.
4. \*Tooth ache: Gargling with plant decoction to reduce teeth pain.
5. Scorpion sting: Whole plant paste is applied externally at the site of scorpion sting .

Literature: Jain, 1991 (wp) jaundice, cuts.

**Balsaminaceae**

**Impatiens acaulis Arn. Var. acaulis.** Fl. Pen. Ind. or. 139. 1834; Hook., f. Fl. Brit India 1:447. 1874; Cooke, Fl. Pres. Bombay 1:182. 1958. (Repr.). **Pantherada**

Small annual herbs. Leaves variable, acute or rounded at base, glabrous above, glaucous beneath. Flowers small, usually 2 – 3, fascicled. Lateral sepals linear, acute. Spur absent or very minute. Capsules turgid in the middle, acute at both ends.

Fls & Frts : August – December.

Distrib.: Grows at higher altitudes, common amidst grasses on plateaus in partial shady Places

**Uses:**

Ed.: Seeds and leaves cooked as vegetable

**Meliaceae**

**Azadirachta indica** Juss. in Mem. Mus. Hist. Nat. 19: 220. t.f. 5. 1830; Cooke, Fl. Pres. Bombay 1: 220. 1958 (Repr.); Jain & Bennet. In Hajara *et al.* Fl. India: 478. 1997; Moorthy in Singh *et al.* Fl. Maharashtra St. Dicot. 1: 502. 2000. **Melia azadirachta** L. Sp. Pl. 385.1735;Hiern in Hook.f.Fl. Brit. India. 1: 544. 1875. Kadu Nimb, Neem.

Trees; bark cracked. Leaves simply pinnate, crowded at the end of branches; leaflets 9-12 Flwers in axillary panicles. Stamens 10, united Ovary glabrous, 3-celled, the cells opposite to petals; ovules 2 in each cell. Stigma 3-toothed. Drupes yellow, 1-seeded.

Fls. & Frts: Feb.- Sep.

Distrib: Commonly found in around villages, also cultivated.

**Use**

**Med:** Leaf: Skin diseases, Round worm, Diarrhoea, Dysentry, Blood purification, cough, Eczema, Antiseptic

Literature: Trivedi, P. C & Sharma (2004). Ethnomedicinal plants. Pointer publication, Jaipur

**Melia azadarach** L. Sp. Pl. 384. 1753; Hiern in Hook.f. Fl. Brit.India 1: 544.1875; Cooke, Fl. Pres. Bombay 1: 218. 1958 (Repr.); Jain & Bennet, in Hajra *et al.* Fl. India 4: 494. 1997; Moorthy in Singh *et al.* Fl. Maharashtra St. Dicot. 1: 505. 2000. BakanNimb, Bakayana, Limbara.

Tress. leaves alternate, 2-3 pinnate, pinnae opposite or alternate, leaflets 3-11, opposite. Flowers in long peduncled axillary panicles. Petals 5, lilac. Stamens 10, tube purple, actuely 20- toothed . Ovary 5-celled. Drupe subfleshy ; cells 1 –seeded . Seeds pendulous , elliptic .

Fls. & Frts : Apr.-July

Distrib: occasional on buds of field and in backyard .

**Use**

**Med:** Anthelmintic: The juice obtained by pounding leaves and bark is used. About 200ml, once a day is fed to animals for 3-4 days.

Literature: Acharya and Acharya, 2009

**FABACEAE**

**Mucuna pruriens** (L.) DC. Prodr.2:405.1825; Baker in Hook.f. Fl. Brit. India 2.187.1876; Cooke Fl. Pres. Bombay 1:389.1958 (Repr.); Jain, Dict. Ethno. 128. 1991. **Dolichos pruriens** L. Stickman Diss. Herb.Amm. 23.1754. 'Khaj kuhiri'.

Large, grey-pubescent, twining annual herbs Leaves 3-foliolate; leaflets ovate-triangular, rhomboid –ovate. Flowers many in dense pendulous racemes. Corolla dark purple, Pods turgid, with alongotudinal rib running the lenth of each valve,falcately csimply pinnate urved on both ends Seeds 5-6, ellipsoid, dark brown.

Fls. & Frts: November-May.

Distrib: Frequent in moist deciduous and dry deciduous forest.

**Uses**

**Med**

1. Boils: Leaf paste is applied externally.
2. Ring worm, scabies and Fever : Root juice applied and massaged gently over infection.
3. Arthritic pain:30 ml of root extract given once a day for one month in treating arthritic pain.
4. Diabetes: One small glass juice of whole plant taken once a day for 15 days to control diabetes
5. Injury due to Insect in ear: Leaves juice pored in ear once to remove insect in ear and as antiseptic.
6. Spermatogenesis: Root juice used to enhance spermatogenesis. Ed - Legumes are used as vegetable.

Literature: Varghese, 1996 (lf) boils; Jain, 1991 (plt) ring worm.

**Caesalpinaceae**

**Caesalpinia decapetala** (Roth) Alst. Trim. Handb. Fl. Ceylon 6. 89. 1931; 1991; Jain, Dict. Ethno. 41. 1991. **Reichardia decapetala** Roth. Nov. Pl. Sp. 212. 1821. **Caesalpinia sepiaria** Roxb. Fl. Ind. 2: 360. 1832; Baker in Hook. f. Fl. Brit India 2:256. 1878. Cooke, Fl. Pres Bombay 1:439. 1958.(Repr.) 'Chilar'

Extensive, scandent shrubs; branches clothed with brown tomentum, prickles. Leaves bipinnate; pinnae 5 – 10 paris; leaflets 8 – 10 pairs, oblong. Flowers in simple, axillary and terminal racemes. Corolla yellow, wooly in the lower half. Seeds 6 – 8 mottled.

Fls, & Frs: December – March.

Distrib: Frequently used as hedge plant around fields

**Use**

**Med**

1. Constipation: Root extract with water 20-30 ml taken with water during night.

- Vet: Mouth sores: Leaves are used to cure mouth sores of domestic animals

**Literature:** Jain, 1991 (lf) mouth ulcer; Ambasta (rt) purgative.

#### **Droseraceae**

**Drosera indica** L. Sp.pl. 282.1753; Cl. in Hook. f. Fl.Brit. India. 2:424. 1878; Cooke, Fl. Pres. Bombay 1: 499. 1958. (Repr.); Godbole & Das Das in Singh *et al.* Fl. Maharashtra St. Dicot. 1: 844. 2000. Erect or decumbent, glandular, pubescent, annual herbs. Leaves cauline, alternate, circinate in veneration. Flowers in leaf opposed, 1 to few flowered racemes. Petals deep pink, narrowly spatulate. Capsules 3- valved. Seeds many obovoid, pale brown, reticulate.

**Fls. & Frts:** July- Nov.

**Distrib-** Common in grasslands.

**Use:** Folk medicine, Siddha.

#### **Combretaceae**

**Terminalia chebula** Retz. Obs. Bot. 5:31.1788; Cl. in Hook.f.Fl. Brit. India 2:446.1878; Cooke, Fl. Pres. Bombay 1:509.1958. (Repr.); Diwakar in Singh *et al.* Fl. Maharashtra St. Dicot. 2:4.2001. Hirda.Trees. Leaves elliptic – oblong. Flowers hermaphrodite, in terminal often paniced spikes. Calyx companulate, glabrous outside, hairy within . Drupes pendulous, ellipsoid, brown obscurely 5-ribbed.

**Fls. & Frts.:** Mar. - Nov.

**Distrib:** common on hilly slopes.

**Use:** Fruit: astringent, laxative, alterative used as a local application chronic ulcers and wound and as a gargle in stomatitis; finely powered used as a dentifricity and considered useful in carous teeth, bleeding and ulcerations of the gums.

#### **Melastomaceae**

**Memecylon umbellatum** Burm.f. Fl. Ind. 87. 1768 var. **umbellatum**; Cooke, Fl. Pres. Bombay 1: 535. 1958 (Repr.); Pradhan in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 26. 2001. *M. edule* Roxb. Pl. Corom. 1: 59. T. 82. 1798; Cl. in Hook.f. Fl.Brit. India 2: 563. 1879, p.p. Anjan.

Small trees; young branches terete. Leaves elliptic or ovate, glabrous, dark green above, paler beneath. Flowers numerous in umbellate cymes from the axis of fallen leaves on old branches. Berries globose, purplish- black, crowned with conspicuous calyx limb, 1-seeded.

**Fls & Frts:** Jan.-July.

**Distrib-** Common at higher altitudes in semievergreen forest.

#### **Use**

**Med:** The leaves are used in the treatment of gonorrhoea, or when mixed with several another ingredients, they make good fomentation for external use.

#### **Lythraceae**

**Ammannia baccifera** L. Sp. Pl.120.1753& ed 2.,1: 175, 1762; C.B. Cl. in Hook., f., Fl. Brit. India 2 : 569, 1879; Cooke, Fl. Pres Bombay 1:541.1958 (Repr.ed.). Jain Dict. Ethno. 20. 1991. 'Bharjambal'.

Herbs, 15 – 30 cm high; stems erect. Leaves 1.0 – 4.5 x 0.3 – 8 cm, linear oblong or oblong – lanceolate, narrowed at base obtuse, acute at apex. Flowers in dense axillary clusters. Capsules depressed globose, dehiscent, red, seeds sub-hemispheric.

**Fls & Frts:** Throughout the year.

**Distrib:** Common near moist places; associated with *Bacopa monnieri*, *Eclipta prostrata*, *Leucas biflora*. *Phyla nodiflora*. Etc

#### **Uses**

#### **Med**

- Intermittent Fever: The fresh or dried plants with ginger and *Cyperus* roots decoction 20-25ml given for intermittent fevers.
- Arthritic pain: The leaf paste warmed and bandaged over joints to treat rheumatic pains.

**Literature:** Jain, 1991 (Wp/lf) Arthritic pain, fever.

**Woodfordia fruticosa** (L.) Kurz in J. As. Soc. Beng. 40:56. 1871. Jain, Dict. Ethn. 189. 1991. *Lythrum fruticosum* L. Sp. Pl. ed. 2, 641. 1762. *Woodfordia floribunda* Salisb., Parad. Lound. t. 42, 1806; C.B. Cl. in Hook., f., Fl. Brit. India 2: 572. 1879; Cooke, Fl. Pres. Bombay 1:543.1958 (Repr. ed). 'Dhayati' Shrubs, 1.5-2 m. high; Stems straggling. Leaves opposite, ovate-lanceolate, rounded, or cordate at base acute at apex. Flowers orange- red, in axillary clusters, Capsule 1.cm long dehiscent irregularly. Seeds obovoid, cuneate, smooth.

**Fls & Frts:** February – May.

**Distrib:** Very common on hill slopes; associated with *Carissa congesta*, *Jasminum multiflorum* etc

#### **Uses**

- \*Jaundice: 15-30 ml bark extract with bark of *Oroxylum indicum*, *Mangifera indica*, *Bauhinia racemosa* and *Dalbergia lanceolaria* taken in equal proportions, is given twice a day for 4-5 days.
- \*Jaundice- Bark alongwith that of *Bauhinia racemosa*, *Mangifera indica* and *Oroxylum indicum* are taken in equal proportions and extract is made 20-30 ml of this extract is given twice a day for 4-6 days.
- \*Snakebite; Root extract with *Helicteres isora* roots is given as an antidote.
- Piles: 20-30 ml extract of flower with sugar taken thrice a day.

#### **Begoniaceae**

**Begonia crenata** Drynadin Trans. Linn. Soc 1: 162., t. 14. F. 3. 1791; Cl. In Hook, f, Fl. Brit India 2: 651. 1879; Cooke. Fl. Pres. Bombay 1: 584. 1958 (Repr): K, Madhusudan Rao in Singh *et al.* Fl. Maharashtra St. Dicot. 2:77, 2001. (Pl -22). 'Amabadi', 'Mutia'.

Small herbs; roots tuberous. Leaves ovate, acute or rarely suborbicular, with crenate margins. Flowers unisexual. Male flowers; stamens many, monoadelphous. Female flowers; perianth segments 5: styels usually connate. Capsules membranous. Seeds orange coloured.

**Fls & Frts :** August – September.

**Distrib:** Common in moist, shady place

#### **Use:**

Ed: \*To reduce thirst: Fresh leaf juice are consumed to reduce thirstiness in summer season

#### **Apiaceae**

**Pinda concanensis** (Dalz.) Mukh.& Cost. In Kew Bull. 41:226.1986; Pradhan in Sing *et al.* Fl. Maharashtra State 2:102.2001. *Heracleum concanense* Dalz. in Hook.f. Fl.Brit.

India 2:716.1879; Cook, Fl. Press. Bombay 1:608.1958 (Repr.). *H. panda* Dalz. & Gibs. Bombay Fl. 107.1861; Cl. in Hook. f. op.cit.2017; Cook, op. cit. 108. 'Pand' Perennial herbs; roots tuberous; stem glabrous. Leaves biternate leaflets 3-lobed. Primary umbels 5-10 rayed. Partial umbels 6-20 flowered. Petals radiant, broadly ovate, 2-lobed with short, inflexed tooth between the lobes.

*Fls. & Frts:* Aug- Dec.

*Distrib:* Rare in grasses, in rock crevice at higher altitudes in semievergreen forest.

#### Use

**Med:** Plant Extract used in skin diseases.

***Pimpinella heyneana*** (DC.) Kurz in J. As. Soc. Beng. 46:115. 1877; Cl. In Hook f. Fl. Brit. India 2:684.1879 Cooke Fl. Pres. Bombay 1; 601. 1958 (Repr.); Rao, Fl. Goa 1;195. 1985; Jain, Dict. Ethn. 144. 1991. '*Dongar-jeera*'. Herbs, annual, erect. Leaves trifoliolate; leaflets deeply lobed chartaceous Inflorescence umbellate Flowers white. Fruits subglobose, glabrous.

*Fls & Frts:* August-December.

*Distrib:* Very common in moist places and grassland

#### Uses

**Med.:** \*Stomachpain: One teacup of plant extract given once a day till cure, which is said to be effective in indigestion also.

Ed: Plant is pickled.

*Literature:* Jain,1991-(wp) pickle

#### Cactaceae

***Opuntia elatior*** Mill. Gard. Dict. ed. 8, No 4 1768. Jain, Dict. Ethno. 135. 1991. *O. dillenii* Graham, Cat 946. 1839, Hook. f. Fl. Brit. India 2: 657, 1879. Cooke. Fl. Pres. Bombay 1 : 587 1958. (Repr. ed); *O. nigricans* Woodrow in Rec. Bot. Surv. India 1:89. 1895. '*Nivdung*'.

Shrubs, 1.5 – 2.0 m high; stems jointed succulent, joints obovate or oblong, prickly, spines straight. Flowers yellow, showy. Fruits 4.5 x 3.4 cm, prickly, ovoid, ripening red.

*Fls & Frts:* February – April.

*Distrib:* Common weed along road side and waste land Burhanagar near Videocon . DCH-1850.

#### Uses

**Med.:** \*Nail infection: Boiled leaves pulp applied externally once a day till cure E d: Ripe fruits are eaten.

*Literature:* Jain, 1991 (fr) edible.

#### Rubiaceae

***Neanotis lancifolia*** (Hook. f.) W.H. Lewis in Ann. Miss. Bot. Gard. 53: 39. 1966; *Anotis lancifolia* Hook. f. Fl. Brit. India 3: 73. 1880; Cooke Fl. Pres. Bombay 2:20 1958 (Repr.) '*Targuchha*'

Erect, diffusely branched herbs. Leaves ovate or ovate – lanceolate. Flowers purple in terminal and sub terminal many Flowered corymbose cymes; peduncles 4 – gonous. Capsules compressed, much broader than by large distant calyx teeths. Seeds 4 – 6 convex on the back, deeply excavated on faces, pitted, black.

*Fls & Frts :* September – November.

#### Use

#### Med

Vet\*Snake bite: Leaf juice is dropped in cattle ear on snake bite.

#### Asteraceae

***Acanthospermum hispidum*** DC. Prodr 5: 522. 1836; Jain, Dict. Ethno. 10. 1991; Shirodkar & Lakshmi. In Singh *et al.* Fl. Maharashtra St. Dicot. 2: 179. 2001. '*Germankata*'.

Annual herbs. Leaves opposite, elliptic, ovate spatulate or oblanceolate. Heads solitary, axillary or between forks of branches, sessile or very shortly pedunculate. Involucral bracts 5, uni seriate. Ray florets with yellow, ligulate corolla. Achenes compressed, with 2 long, hooked spines at the tip and small spines below.

*Fls & Frts:* August – November.

*Distrib:* Very common on wastel and

#### Uses

1. Itch and Scabies: Whole plant paste is applied.
2. \*Jaundice- 1 teaspoon of fresh root juice is given once for 3 days.

**Literature:** Jain, 1991-(wp) skin dis, fever. Ambasta (wp) dermatological compl.*Distrib:* Very common on wasteland ***Ageratum conyzoides*** L. Sp. Pl. 839. 1753. Hook. f. Fl. Brit. India 3:243. 1881; Cooke Fl. Pres. Bombay 2:70. 1958. (Repr.); Jain, Dict. Ethno. 15. 1991. '*Sahdevi*', '*Osadi*'.

Annual herbs. Leaves opposite or alternate, ovate. Heads in dense terminal corymbs. Pappus of 5 scales, aristate, dilated at base, serrulate. Corolla tubular, plae blue, pink or white. Achenes linear, tetragonous, slightly curved, short hairy.

*Fls & Frts:* August – April.

*Distrib.:* Very common on wasteland

#### Uses

#### Med

1. Itch: Fresh leaf juice applied until cure.
2. To Expel lice: Dried plant power applied externally it reduces tick and lice of hen.

*Literature:* Jain, 1991-(wp) skindisease; Asolkar *et al.* 1993-(wp) kill the ticks.

***Echinops echinatus*** Roxb. Fl. Ind 3:447. 1832; Hook f. Fl. Brit India 3:558. 1881; Cooke, Fl. Pres. Bombay 2:112.1958 (Repr.ed); Jain, Dict. Ethno. 80. 1991. '*Utanti*' ,'*Brahmadandi*'.

Herbs, 30 – 60 cm high; stems, erect, branched, pubescent. Leaves 4 – 10 cm long, oblong, pinnatifid, lobes oblong triangular, spinescent; white wooly below. Flowers heads grayish white, 2.5 – 3 cm across, spiny; spines up to 2 – 5 cm long, involucral bracts oblanceolate, spiny. Achnes ca. 0.4 cm long, obconic, densely villous; pappus yellow, forming a short, cylindric brush above achenes.

*Fls & Frts:* September – April.

*Distrib.:* Common weed on waste land

#### Uses

#### Med

1. \*Spermatogenesis: 100 ml extract of its root bark with milk taken ones a day
2. in evening for 8-10 days.
3. Tonic: 5 gm powder of flower with 100 ml milk taken as a tonic.



4. Antidote to poison: 5 gm root powder with honey taken orally as antidote to
5. poisonous things by mistake or delibretely taken, particularly in case of
6. suicide attempt , it causes vomatting.
7. \*Wounds:Root powder is used to cure

*Literature* : Anonymus, 1988-2008-(rt) tonic.

**Glossocardia bosvallea** (L.f.) DC. In Wight. Contrib. Brit India 19: 1834;. *Varbascena bosvallea* L.f. Suppl. Pl. 370; 1781. *Glossocardia linearifolia* Cass. Dict. Sci. Nat. 19: 62. 1821; Hook f. Fl. Brit. India 3: 308. 1881; Cooke, Fl. Pres Bombay 2: 100. 1958. (Repr) '*Khadak shepu*', '*Pittapapada*'. Ascending, usually prostrate, diffusely branched, herbs. Leaves pinnatisect. Heads radiate, solitary, axillary. Involucral bracts in 2 – 4 series. Ray florets with 2 – 3 lobed corolla. Achenes brownish black, compressed, densely ciliate on angles with suff hairs.

**Fls & Frts:** July – December.

**Distrib:** Frequent on rocky soils near lakes.

#### Use

#### Med

1. \*Chronic fever: Spoonful extract of whole plant given along with cow milk twice aday to treat fever.
2. 138
3. \*Leucorroea: 10-15ml decoction of leaves is given once a day for 5 dyas to treat leucorrhoea.
4. **Lagascea mollis**. Cav. Anal. Clenc.Sci. Nat. 6:332. t. 44. 1803; Hook, f., Fl. Brit. India. 3:302.1881; Cooke, Fl. Pres. Bombay 2:93. 1958 (Repr.ed): Jain, Dict. Ethno. 112. 1991. '*Tharvad*'. '*Pandhri phuli*'.

Herbs, annual, 40 – 90 cm high; stems erect, branched, pubescent. Leaves 2.0 – 4.5 x 1.5 – 3.0 cm, ovate, cuneate at base, acute to acuminate at apex, margins entire or serrulate. Flower heads compound 2.0 – 2.5 cm across, silky – hairy; Florets white, in involucral leaves cliptic, acute. Achences ca. 0.2 cm long, cuneate; pappus a short fimbriate cup.

**Fls & Frts:** July – October

**Distrib:** Common in ghats, near villages, hedges and in wastelands

#### Med

1. Wounds: Root paste applied to treat wounds or leaf juice used as an antiseptic.
2. \*Head Lice: Root powder is used to wash hairs which kills lice.

**Literature:** Jain, 1991(lf) wounds.

**Laggera alata (D.Don) Sch.- Bip. Ex Oliver in Trans.** Linn. Soc. 29: 94. 1873; Hook. Fl. Brit. India 3-271. 1881; Cook, Fl.Pres. Bombay 2:80. 1995 (Repr.); S. Kumar in HAJara *et al.* Fl. India 13:148, 1995; shirodkar & Lakshmi. In Sing *et al.* Fl. Maharashtra St. Dicot. 2: 223.2001. *Erigeron alatum* D. Don., Prodr. Fl. Nepal.171.1825.

Erect, Stout herb, stem winged. Heads in leafy racemes. Corolla of bisexual floretsn purplish. Achemes dark brown, puberulous, faintly ribbed appressed hairy, villous.

**Fls. & Frts.:** Dec.-May

**Disturb-** Rare on hill slopes in de ciduos forests.

#### Use

**Med:** cough due to wind coldness: Dried inflorescence of winged *Laggera* 15-18 Stir fry with honey. Decoct in water and swallow.

#### Root

1. Lingering headache, postpartum shock: Fresh winged *Laggera* root 60gm. Decoct in water and swallow.
2. Bites by green bamboo snake: Winged *Laggera* root 60gm, grind juice and administer orally, take winged *Laggera* stem leaves of an appropriate amount, pestle and apply externally.

Ref. libproject.hkbu.edu.hk

**Sphaerenthus indicus** L. Sp.Pl.1314.1753; Hook.f. Fl. Brit. India 3;275.1881, p.p; Cook, Fl.Pres. Bombay 2:84 1958 (Repr.); S. Kumar in HAJara *et al.*Fl. India 13:160. 1995; Shirodkar & Lakshmi. In Sing *et al.* Fl. Maharashtra St. Dicot. 2.242.2001. Gorakhmundi.

Strongly aromatic , procumbents herbs, with toothed wing. Leaves obovate-oblong, spathulate. Heads compound, spherical, with glandular-pubescent involucral bracts which are ciliat.Marginal floret and central florets with dark purple corolla. Achenes minute.

**Fls. & Frts.:** Nov.-Mar.

**Disturb:** Common in drying ditches, harvested rice fields along river and stream banks.

#### Use

**Med:** Leaves: Used for treatment of Migrane, Jaundice, Fever, Cough, Hernia, leprosy.

**Tridax procumbens** L. Sp.Pl. 900 1753; Hook. f. Fl. Brit. India 3: 311 1881. Cooke, Fl. Pres. Bombay 2: 102 1958 (Repr.ed); Jain, Dict. Ethn. 182. 1991. '*Dagadipala*', '*Ekdandi*'. Her bs, stragging, 20 – 30 cm high. Leaves 2.5 – 3.5 x 1.5 – 3.0 cm, ovate-elliptic-incisodentate or pinnatisect, acute at base, hairy. Flower heads yellowish. 1.0 – 1.5 cm across, solitary, peduncles up to 30 cm tall. Achenes ca 0.2 cm long, oblong, densely silky hairy, black, pappus of aristate, feathery bristles.

**Fls & Frts:** Mostly throughout the year.

**Distrib:** Common weed along road side and waste land

#### Uses

1. Cuts and wounds: leaf paste applied for treating cuts, injuries and for healing wounds.
2. \*Jaundice: Plant paste with jaggery is given once in a day for 3-7 days

**Literature:** Jain, 1991-(lf) cuts and wounds; Ambasta *et al.* 1992-(lf) wounds. Sharma & Singh, 2001-(lf) cuts and wounds; Chattarjee & Satyesh, 2003-09-(lf) wounds. Rao & Henry. 1996-(lf) wounds and cuts.

**Xanthium indicum** Koenig in Roxb., Fl. Ind 3: 601. 1832; Chowdhery in Fl. India 12: 427.

1995 *X. strumarium* L. Sp. Pl. 957. 1753, p.p; Hook.f. Fl. Brit. India 3: 303. 1881; Cooke, Fl.

Pres. Bombay 2:94. 1958 (Repr.ed.). Jain, Dict. Ethn. 190. 1991. '*Landga*', '*Vinchu*'.

Herbs, 30 – 45 cm high; stems, erect, branched and stout, hairy. Leaves 4.5 – 7.5 x 4.0 – 6.5

cm, broadly triangular –ovate, 3-lobed, cordate or cuneate at base, margins inciso-serrate.

Flower heads greenish, ca. 0.5 cm across, in terminal and axillary racemes. fruits ca. 2 cm

long, ellipsoid or oblong, with hooked-prickles. Achenes ca. 1.2cm long, oblong, ovoid, compressed and glabrous.

**Fls & Frts:** January – May.

**Distrib:** Common weed along road side and waste land associated with *Argemone Mexicana*, *Chrozophora prostrata*, *Euphorbia hirta*, etc.

#### Uses

#### Med

1. Mouth ulcer: Root juice is applied inside mouth for 2-3 days twice a day until cure.
2. Boils: 5 gm powder of leaves with *Plumbago zeylanica* roots and *Balanites aegyptiaca* stem bark powder take in equal proportion, add 2 gm *Piper nigrum* seeds powder taken once a day for three days.
3. Wounds: Root paste applied externally twice a day until cure.

**Literature:** Jain, 1991-(rt) ulcer; Ambasta *et al.*, 1992 (rt) boils; Chattarjee & Satyesh, 2003-2009-(lf) boils.

#### Plumbaginaceae

**Plumbago zeylanica** L.Sp. Pl. 151. 1753; C.B. Cl.in Hook. f. Fl. Brit. India 3:480: 480. 1882;

Cooke, Fl. Pres. Bombay 2:136. 1958 (Repr.ed.); Jain, Dict. Ethn. 146. 1991. 'Chitrak'.

Undershrubs, perennial up to 1.5 m high; stems erect or straggling. Leaves 3.0 – 7.5 x 2.0 – 3.5 cm, ovate, shortly attenuated at base, acute at apex. Flowers white, in elongate, terminal, simple or paniced-spikes. Capsules ca. 0.6 cm long, oblong, pointed.

**Fls & Frts:** March– December.

**Distrib:** Found on hills slopes

#### Uses

#### Med

1. Measles; Coconut oil is applied on skin and then root paste is applied.
2. Arthritic pains: Root paste is warmed and applied.
3. Stomach pains; 2-4 ml of root extract given twice a day with water.
4. \*Jaundice: 20-30 ml decoction of its roots with *Oroxylum indicum* bark and *Carissa congesta* roots taken in equal proportion, given twice for 5-6 days.
5. Fever: Root crushed and applied and massaged over backbone to reduce fever.
6. Loose motions: Whole plant crushed and 20-30 ml extract taken with ghee to reduce loose motion.
7. Scorpion sting: Root extract applied externally at the site of scorpionsting.

Ed\*Leaves used as vegetable.

**Literature:** Jain,1991-(rt) Arthritic pain, skin diseases. Varghese,1996-(rt) stomach pain, bone pains; Siwakoti & varma-(rt) stomach ailments.

#### Primulaceae

**Anagallis arvensis** L. Sp.Pl. 211. 1753; Cl. in.Hook.f. Fl.Brit. India 3: 506. 1882; Cook, Fl. Pres. Bombay 2: 139. 1958 (Repr.); Londhe in Singh *et al.* Fl. Maharashtra St. Dicot 2: 285. 2001 Jokmari.

Erect or ascending herbs. Branches obscurely 4-winged. Leaves ovate, opposite, decussate, sometime whorled. Flowers axillary, solitary. Corolla blue purple, rotate; lobes 5, ovate, obtuse, glandular hairy. Stamens 5; filaments hairy. Ovary globose. Capsule globose. Seeds many, subtrigonus.

**Fls & Frts:** Sep.- Jan.

**Distrib:** Common of bunds of fields also as a weed.

**Use:** Ingout, cerebral afflictions, hydrophobia, leproy, dropsy, epilepsy; mania and in snakebite. (Trivedi P.C., Sharma N.K.,2009)

#### Asclepiadaceae

**Asclepias curassavica** L. Sp. Pl. 215.1753; Hook. F. Fl. Brit. India 4:18. 1883: Cooke, Fl.

Pres. Bombay 2:245. 1958(Repr.ed.). Jain Dict. Ethno. 29. 1991. Kurki, 'Haldi kunku'.

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Shrubs, up to 1 m high. Leaves 12 – 15 x 3 – 4 cm, narrowly lanceolate, opposite or whorled,

acute or acuminate at apex, margins entire. Flowers orange, in axillary and terminal, umbellate cymes.

**Fls & Frts:** February – December.

**Distrib:** Very common in ghats,

#### Med

1. \*Cough: Root extract 20-30ml taken to treat cough for 2-3 days.
2. Intestinal worms: Leaf juice 2-10ml mixed with curd and taken as an anthelmintic.
3. Wounds: Leaf powder mixed in oil and applied on wounds.
4. **Literature:** Ambasta, 2006 – (lf) anthelmintic, wounds.

**Calotropis gigantea** (L.) R. Br. in Air. Hort. Kew ed.2. 2:78. 1811; Hook f. Fl. Brit. India

4:17. 1883. Cooke; Fl. Pres Bombay 2:214. 1958 (Repr). Jain Dict. Ethno. 41. 1991.

**Aselepias gigantea** L. Sp. Pl. 214. 1753. 'Kali Rui', 'Mandar'.

Large shrubs. Leaves opposite, decussate, broadly obovate or elliptic oblong. Flowers in lateral subcorymbose cymes. Pollinia ovoid. Corona of 5 fleshy laterally compressed lobes

with a recurved spur at base and 2 rounded auricles just below the rounded apex. Follicles

boat shaped with hooked tips, coma silky white.

**Fls & Frts:** October – June.

**Distrib:** Common weed in Waste lands and along roadside

#### Uses

#### Med

1. Intestinal worms: 2 drops of latex mixed with jaggery (for 3 years old child)& 3-4
2. drops (for adult)made in to pills;One or two pills given on empty stomach in morning.
3. Headache: Dry stems smoked like cigarette.
4. Stomach pain: Abaxial side of leaf applied with oil, heated and kept over stomach.

Arthritic pain:

- a. The leaves are applied to paralysed parts and painful joints and swellings.
- b. Flowers warmed and tied on feet over night by using cotton cloth to reduce pain.
5. 5 \*Fit : Powder of few dried flowers with few *Piper nigrum* seeds taken in equal
6. proportion and made into pills of 1gm each and taken orally once a day for one month.
7. Painful menstruation: 20- 40 ml extract of root bark with buffloes milk taken once a
8. day for three days after fourth day of menstruation.
9. Wounds: Mature leaf extract applied on wounds till cure.

Misc

- a. Adiwasis use flowers woven together and used as bridal decoration during marriages.
- b. Flowers are offered to lord 'Shani deva'
- c. Fermented mixture of maida and salt is used for unhairing of goat skin for production of nari leather, and sheep skins to make leather which is much used by cheap bookbinding.

**Literature:** Jain,1991-(lf,rt) intestinal worms, rheumatism; Aminuddin & Girach, 1993-(rt) headache; Alam, 1992-(lf) pains; Saklani& Jain,1994-(1f)stomach pains.

**Calotropis procera** (Ait.) R. Br. ssp.*C. hamiltonii* (Wight) Ali in Notes Roy. Got. Gard. Edinburgh 38(2): 287, 190. 1980. *C. hamiltonii* Wight, Contrib. Bot. Ind. 53. 1834. *C. procera* (Ait) R. Br. in Ait. Hort. Kew ed. 2, 2:78. 1811. Hook. f., Fl. Brit. India 4:18. 1883; Cooke, Fl. Pres. Bombay 2:215. 1958 (Repr.ed.). Jain, Dict. Ethno. 42. 1991. '*Rui*'.

Shrubs, 1.5 – 2 m high. Leaves sessile, 5.5 – 1.5 x 3.5 – 5.0 cm, broadly ovate, ovateoblong or obovate. Flowers in umbellate cymes follicles 6 – 8 x 5 – 6 cm, ovoid. Seeds 0.5 x

0.4 cm, broadly ovate, acute, flattened coma ca. 3cm long.

**Fls & Frts:** Throughout the year.

**Distrib:** Very common weed in open places and along roadside

Uses

Med

1. \*Head ache: Leaves kept on forehead and massage is given by warmed
2. utensil.
3. Cough: *Piper nigrum* seeds soaked in latex for over night, crushed and made
4. in to pills of 1 gm once a day for 15 days.
5. \*Dog bite: Latex mixed in oil and jaggery taken in equal proportions, pills of 1
6. gm each prepared, 1 or 2 pills taken once a day for 5 days.

7. Wounds: Mature leaf extract applied on wounds till cure.
8. Leprosy: 40-50 ml of decoction of roots with roots of *Mangifera indica*,

*Dodonea viscosa* roots *Plumbago zeylanica*, *Nerium indicum*, *Azadiracta*

*indica*, *Justicia adhatoda*, *Clerodendrum inermes* and *Semecarpus*

*anacardium* fruits taken in similar proportion and decoction prepared in water, taken once a day for 30 days.

6. Earache- Mature leaf extract applied on ear externally.

Misc: Flowers offered to lord 'Shani deva'.

**Literature:** Jain, 1991-(lf & rt) cough. Kapoor, 2001-(fl) cough. Ambasta *et al.*, 1992-(rt bk)

leprosy.

**Leptadenia reticulata** (Retz.) Wight.&Arn in Wight Contrib..

Bot. Ind. 47. 1834; Hook. f.,

Fl. Brit. India 4:63. 1883; Cooke, Fl. Pres. Bombay 2:237. 1958 (Repr. ed.); Sant. & Irani in

Univ. Bombay Bot. Mem. No 4. 60. 1962. *Cynanchum reticulatum* Retz. Obs. Bot. 2:15.

1781. '*Hirandodi*'.

Shrubs, stems and branches twining, with corky, cracked bark. Leaves 3.0 – 6.5 x 1.5 – 3.0 cm, ovate, rounded or subcordate

at base, acute at apex. Flowers greenish – yellow; in axillary or subaxillary, umbellate cymes. Follicles 6 – 8 cm long, tapering into an obtuse

curved beak. Seeds. 0.6 cm long. Ovate – oblong; coma 3.0 – 3.5 cm long.

**Fls & Frts:** April-November.

**Distrib:** Occasional bushes on hill slopes,

Use

**Med:** Tonic: whole plant extract taken 20-30ml for 15 days as a tonic.

**Literature:** Jain, 1991 (wp) tonic.

Periplocaceae

**Cryptostegia grandiflora** (Roxb.) R.Br. in Reg, 5, t. 438, 1820; Sant. & Irani in Univ.

Bombay Bot. Mem No. 4:93. 1962; C.B. Cl. in Hook, f., Fl. Brit. India 4:6. 1883; Cooke. Fl.

Pres. Bombay 2:245, 1958 (Repr.ed) *Nerium graniforum* Roxb., Fl. Ind. 2:10. 1832. '*Kavali*'.

'*Vilayati vakundi*'. Climbing shrubs; stems extensive. Leaves 6 – 9 – 2.5 – 6.0 cm, ovate – elliptic or elliptic – oblong, rounded and obtusely acuminate at apex. Flowers ca 8 cm across, pale pink, in terminal, trichotomous cymes. Follicles 8.0 – 9.5 cm, ovate – lanceolate, 3 – angled, 3 – winged. Seeds ca. 0.6 x 0.2 cm narrowly – ovate.

**Fls & Frts:** April – October.

**Distrib:** Common on hill slope

Med

1. \*Snake bite; 20-40 ml extract of its roots with bark of *Holarrheana pubescens* and
2. *Blume erintha* taken in equal proportion, given as antidote.
3. 2 \*Wounds and injuries: Ash of burned leaves applied externally on wounds with oil

**Hemidesmus indicus** (L.) Schultes in Roem & Sch. Syat. Veg 65: 126. 1819 var, *indicus*;

Hook f. Fl. Brit. India 4:5, 1883; Cooke, Fl. Pres. Bombay 2:210 1958. (Repr.); Jagtap & Das

Das in Singh *et al.* Fl. Maharashtra St. Dicot.2;386, 2001. Jain, Dict. Ethno. 101. 1991.

*Periploca indica* L. Sp Pl. 211. 1753. '*Anantmul, Uparsul*'.

Perennial prostrate or twining shrubs. Leaves lanceolate or linear – lanceolate, linear, very variable, dark green or often variegated above. Flowers in dense axillary sessile cymes.

Corona greenish outside, purple within. Filaments distinct, anthers cohering at apex. Seeds

black, coma silvery white

**Fls & Frts:** August – December.

#### Uses

#### Med

1. Diarrhea and Dysentery: Root decoction about 5 ml is taken twice a day for 2-3 days
2. to cure diarrhoea. It is also used to treat dysentery.
3. Itch: The root paste is applied to cure itching and other skin diseases.
4. Jaundice: Root of this plant along with sugarcandy, dried rhizome of *Zingiber*
5. *officinalis*, bark of *Cassia auriculata* and black pepper (in equal proportion) are
6. ground and made into pills these are given twice a day for 15 days. Fish and meat are
7. avoided.
8. Jaundice: Root is powdered and given with honey twice a day for 7 days.
9. Skin disease: The root paste is applied to cure other skin diseases
10. Tonic, Cooling & Blood purifier: Root powder 1-2 gm boiled in water or milk is taken orally as tonic, cooling & blood purifier

**Literature:** Jain, 1991-(rt) dysentery, diarrhea, skin dis., . Kapoor, 2001-(rt) liver disorders..Anonymous,1998-2008-(rt) tonic, blood purifier Jain, 1991-(rt) cooling.

#### Gentianaceae

**Canscora decurrens** Dalz. in Hook., J. Bot & Kew grad. Misc. 2 : 136. 1850; C.B. Cl. in

Hook. f., Fl. Brit. India 4 : 103 1883; Cooke, Fl. Pres. Bombay 2 : 257. 1958 (Repr.ed).

'*Kilwar*'.

Herbs, ca 30 cm tall; stems 4 – winged. Leaves sessile; lower leaves 2.0 – 2.5x1 – 2 cm,

oblong, with attenuate base, upper leaves smaller. Flowers rosy, in subtrichotomous cymes.

Capsules membranous.

**Fls & Frts:** September – December.

**Distrib:** Frequent in open, moist situations, along ghats and in plains.

#### Uses

**Med.:** \*Tonic: Plants extract 10-20ml given for 15 days as a tonic.

**Encicostema axillare** (Lam.) Raynal in Adansonia 9: 75. 1969. *Gentiana axillaris* Lam. Tab.

Encycl 1 (2) : 487. 1793, non Raf. 1828. *Encicostema hyssopifolium* (Willd.) L. C. Verdoon in

Bothalia 7: 462. 1961. *E. littorale* auct. Non Bl.,1826; C.B. Cl. in Hook. f. Fl. Brit. India

4:101.1883; Cooke, Fl. Pres. Bombay 2:255.1958 (Repr.ed.). '*Nai*', '*Chotakarait*'

Herbs, perennial, 10 – 30 cm high, stems erect. Leaves 2.5 – 5 x 0.3 cm, linear, linear –

oblong or elliptic – oblong, obtuse to acute at apex. Flowers white, in axillary clusters.

Capsules ca 0.4 cm long, ellipsoid rounded with apiculate apex.

**Fls & Frts:** September – January.

**Distrib:** Frequent in open moist situations amidst grasses

#### Uses

#### Med

1. Fever: Fresh roots of the plant are crushed into paste or roots boiled for preparation
2. of decoction. Half cup of the drug administered twice a day for three days to cure
3. fever. It should not be taken empty stomach.
4. \*Blood pressure: 10-30 ml plant extract is given twice a day for 15 days.
5. \*Diabetes: 5 gm leaves with 5 gm *Gymnema sylvestre* leaves crushed and taken early
6. in the morning once a day to control diabetes. For 15-20 days.
7. \*Stomach ache: Paste of whole plant with jaggery taken in similar proportions, made
8. in to 5 gm pills, one pill taken thrice a day until cure.
9. \*Tumor in stomach & Stomach ulcer : Whole plant with *Acacia farnesiana*, root

bark, *Plumbago zeylanica* whole plant, *Balanites aegyptica* root bark *Solanum*

*virginianum* roots, *Vitex negundo* roots and *Coccinia grandis*

roots taken in equal proportions added pinch of *Piper nigrum* seed powder and *Piper longum* seed powder and one tea cup

extract taken once a day for 41 days.

6. Scorpion sting: One tea cup extract of leaves taken orally, likewise 3 doses are given at the interval of one hour.

7. Leucorrhoea: Plant with *Phyllanthus amarus* plant taken in equal proportion, crushed

and eaten with sugar once a day for 3 days.

Vet: \*Constipation: 200 ml decoction of 100 gm fresh roots given orally twice a day.

Misc.: Religious Belief: Amongst the Bhils and banjaras, there is a firm belief that the charm of leaves if tied to a patient's,

arm will immediately get rid of all sorts of fever

**Literature:** Jain, 1996-(wp) fever.

**Exacum lawii** Cl. in Hook f. Fl. Brit. India 4:98. 1883; Cooke. Fl. Pres. Bombay 2:254 1958.

(Repr.); Jadhav in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 407. 2001. '*Lahan chirayat*'

Small erect herbs. Stem slender, quadrangular, usually unbranched. Leaves sessile, 3 –

nerved, glandular punctuate. Peduncles terminal, 1 – Flowered. Corolla

bluish purple. Capsules sub globose or ovoid.

**Fls & Frts:** September – December.

**Distrib.:** Frequent in grasses at higher altitudes.

#### Use

**Med.:** \*Stomach ache: Plant extract 20-30ml given before meal, twice a day for two days.

### Boraginaceae

**Cynoglossum zeylanicum** (Vahl ex Hornem.) Thunb. Ex Lehm. Neue Schriften. Naturf.Ges. Halle 3 (2): 20. 1817; Kulkarni in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 421. 2001. *Anchusa Zeylanica* Vahl ex Hornem. Enum. Hafn. 3: 1807. *Cynoglossum furcatum* Wall. ex Roxb.Fl. Ind. (Carey & Wall. ed.) 2: 6. 1824; Cl. in Hook. f. Fl. Brit. India 4: 155. 1883. *C. denticulatum* A. DC.var.. *zeylanicum* (Vahl ex Hornem.) Cl. in Hook.f. op.cit.157: Cooke, Fl. Pres. Bombay 2: 284. 1958 (Repr.). Lichard.

Erect, woody perennial herbs. Flowers in terminal and axillary racemose cymes. Corolla pale blue, lobes orbicular. Stamens slightly exserted. Nutlets glochidate, brown with conspicuous margin.

*Fls & Frts:* Nov.- Mar.

*Distrib:* Common in open areas.

### Use

**Med:** The flower are pounded on a stone slab and the paste is applied around boils. It helps to draw out pus and quickens the healing process. (Trivedi.P.C., Medicinal Plants)

**Paracaryopsis coelesina** (Lindl.) R. Mill in Edinb. J. Bot. 48. 57. 1991. *Cynoglossum coelestinum* Lindl. Bot. Reg 25: t. 36. 1839. *Paracarynm coelestinum* (Lindl.) Benth. & Hook.

f. Gen. Pl. 2: 850. 1876; Cl in Hook.f. Fl. Brit. India 4: 160. 1883; Cooke, Fl. Pres. Bombay 2: 285. 1958 (Repr.). 'Nisurdi'.

Erect branched herbs. Leaves submembranous, radial leaves very large. Flowers in ebracteate hairy often twice forked racemes. Corolla pale blue with darker centre, often tinged with pink tube. Ovary deeply 4-lobed. Nutlets 4.

*Fls & Frts:* August – October.

*Distrib.:*

**Use:** \*A whole plant paste applied externally to wound until cure.

**Trichodesma indicum** (L.) R. Br., Prodr, 149. 1810; C.B. Cl. in Hook. f. Fl. Brit. India 4 : 153. 1883; Cooke, Fl. Pres. Bombay 2 : 281. 1958 (Repr.ed); Jain, Dict. Ethn. 181. 1991.\*

*Borago indica* L.Sp. Pl. 137. 1753. 'Chota kalpa'.

Herbs, annual; stems, 15 – 35 cm high, erect. Leaves 3.0 – 8.5 x 0.5 – 0.4 cm, ovate – oblong to lanceolate – oblong, cordate at base, obtuse or acute at apex. Flowers pale blue, ca. 1 cm long, solitary, leaf – opposed and in terminal cymes. Fruits pyramidal; nutlets ca. 0.5 cm long.

*Fls & Frts:* October-February.

*Distrib:* Frequent in open places along with *Evolvulus alsinoides*, *Triumfetta rhomboidea*, etc. **Use:** \*Joint swelling: The root pounded paste is applied on joints to treat swelling.

### Convolvulaceae

**Convolvulus arvensis** L. Sp. Pl. 153. 1753; C.B. Cl. in Hook. F. Fl. Brit. India 4 : 219. 1883;

Cooke, Fl. Pres. Bombay 2 : 303. 1958 (Repr.ed). Jain, Dict. Ethno. 60. 1991. 'Chandvel'.

Herbs, stems trailing. Leaves 2.5 – 4.5 cm long, ovate to oblong, obtuse and apiculate at apex. Flowers pink or white, ca 1.5 cm long, 1 – 3, pedicelled. Capsules 0.6 – 0.8 cm across, globose, glabrous. Seeds subtrigonus.

*Fls & Frts:* December - June

*Distrib:* Common in grass l and

### Use

**Med.:** Constipation: 25-30 ml of roots extract taken for 15-20 days during night.

*Literature:* Jain, 1991 (rt) purgative.

**Evolvulus alsinoides** L. Sp. Pl. ed. 2 : 393. 1762; C.B. Cl. in Hook. f., Fl. Brit. India 4 : 220.

1883; Cooke, Fl. Pres. Bombay 2 : 297. 1958 (Repr.ed). Jain, Dict. Ethno. 88. 1991.

*Convolvulus alsinoides* L. Sp. Pl. 157. 1753 'Vishnukant.'

Herbs, perennial; rootstock woody, stems prostrate, creeping, wily, hairy or glabrous. Leaves 1.0 – 2.5 x 0.2 – 1.0 cm, ovate, elliptic – oblong, obtuse, apiculate at apex, appressed – hairy.

Flowers light blue, solitary, axillary, on filiform pedicels. Capsules 0.2 – 0.3 cm across, globose, 4 seeded, glabrous. Seeds oblong, glabrous.

*Fls & Frts:* July – November.

*Distrib.:* Common in open areas along with *Digitaria ciliaris*. *Trichodesma indicum*.

*Triumfetta rhomboidea*. etc. Burhanagar. DCH – 1724.

### Uses

### Med

1. Brain tonic: Plant power 1-2gm taken regularly with water and sugar to strengthen the brain and improve memory.
2. Indigestion: The decoction of leaf 10-20ml taken with leaves of *Ocimum sanctum* in 2:1 proportion for indigestion.
3. \*Jaundice: 2 spoonful of leaf paste is mixed with onion bulb paste and is given twice a day with cow milk for 3 days.
4. Fever: One tea cup decoction of whole plant with *Zingiber officinale* rhizome powder
5. *Piper nigrum*, *Piper longum* seeds powder taken 2:2:1:1 proportion and given twice a day for 10 days.
6. Head ache: Fine powder of the plant inhaled deeply to reduce headache.
7. Wounds: Whole plant paste applied on wounds until cure.
8. *Literature:* Upadhye, *et al.*, 1994 and Sinha 1996-(wp) brain tonic; Jain, 1991 (wp) stomach
9. ache.

**Ipomoea cairica** (L.) Sweet. Hort. Brit. 287. 1827; Ooststr, in bSteenis. Fl. Males. 1. 4: 478.

1953. Jain, Dict. Ethno. 107. 1991. *Convolvulus cairicus* L. Syst Nat. (ed.10) 922. 1759.

*Ipomoea palmata* Forssk. Fl. Aegypt – Arab 43. 1775; C.B. Cl. in Hook. f., Fl. Brit. India 4 :

214. 1883; Cooke. Fl. Pres. Bombay 2 : 319. 1958 (Repr.ed). 'Garvel'.

Twining, perennial; older stems semi – woody, lenticular. Leaves palmately 5-7-lobed, 4.0-6.0 cm long and as broad as long; lobes divided almost to the base, oblanceolate, obtuse or subacute, mucronate; petioles 1 – 4 cm long. Flowers light violet, in axillary, subumbellate cymes. Capsules ca. 1 cm long, ovoid or subglobose, glabrous. Seeds pubescent with marginal hairs.

*Fls & Frts*: Almost throughout the year.

*Distrib*:

#### Uses

**Med**: \*Constipation: Fresh seeds 20-30gm crushed in water and extract taken early morning .

*Ipomoea carnea* Jacq. ssp. *fistulosa* (Mart. ex Choisy) Austin in Taxon 26 (2-3); 237. 1977.

Jain, Dict. Ethno. 107. 1991. *Ipomoea fistulosa* Mart. ex Choisy in DC. Prodr. 9 : 349. 1845. I.

*crassicaulis* (Bth.) Rob. In Proc. Amer. Acad. Arts. 51 : 330. 1916. 'Beshram'.

Shrubs, 1.5 – 2.5 m tall, woody at base. Leaves 10 – 20 x 4 – 11 cm, ovate – lanceolate,

acuminate at apex. Flowers pink to rose – purple, ca 6 cm long, in corymbose – paniculate

fascicles. Fruits ca. 2 cm long, subglobose.

*Fls & Frts*: March – April.

*Distrib*: Found near villages. Pravara sangam. DCH - 1782.

#### Uses

#### Med

1. 1 Cuts and wounds: Leaf juice applied on cuts and paste on wounds till cure.
2. 2 Arthritic pain: Leaves warmed and wrapped over joints *Literature*: Jain, 1991 (lf) cuts, wounds.

*Ipomoea obscura* (L.) Kev.-Gawi. In Bot. Reg. 3: t. 239. 1837 forma **obscura**; Cl. in. Hook. F. Fl. Brit. India 4: 207. 1883; Cooke, Fl. Pres. Bombay 2: 317. 1958 (Repr.); Venkanna & Das Das in Sing *et al.* Fl. Maharashtra St. Dicot. 2: 466. 2001. *Convolvulus obscurus* L. Sp. Pl. ed. 2: 220. 1753. Pungali.

Annual, often purplish, twinning. Flowers rather small, 1 or 2 together. Corolla infundibuliform, yellow, or white with the small purple eye. Capsules ovoid. Seeds dark brown, velvety.

*Fls. & Frts*: Jan-Mar.

**Uses**: Part of the plant is tied over the wrist of the children for curing diarrhoea and dysentery. (Ramana V. M., 2008.)

#### Solanaceae

*Nicandra physalodes* (L.) Gaertn. Fruct. Sem. Pl. 2: 237. t. 141. f. 2. 1791; Hook f. Fl. Brit.

India 4: 240. 1883; Cooke, Fl. Pres. Bombay 2: 346. 1958 (Repr.). *Atropa physalodes* L., Sp.

Pl. 181. 1753. 'RanPopati', 'Dhodana'.

Erect, much branched, annual herbs; stem fistular, glabrous. Leaves ovate – lanceolate,

glabrous. Flowers solitary, axillary, at first erect, nodding with age. Calyx enlarging in fruit.

Corolla pale blue with white, short tube. Berries globose, brown, enclosed in enlarged calyx.

Seeds flat, brown.

*Fls & Frts*: September – December.

**Distrib**: Occasional, on wasteland around field.

#### Use

#### Med

1. Head Lice: Leaves crushed and applied over head for killing head lice.

Misc: Fish poison: Entire plant crushed and spread in small ponds which makes fish stunned temporarily and can be caught.

*Literature*: Ambasta, 2006. (pl) insecticidal and fly poison.

*Solanum nigrum* L. Sp. Pl. 186. 1753. Cl. in Hook f. Fl. Brit. India 4: 229. 1883; Cooke, Fl.

Pres. Bombay 2: 332. 1958. (Repr.); Jain, Dict. Ethn. 168. 1991. 'Kanguni'.

Erect, annual herbs. Leaves ovate – lanceolate, glabrous. Flowers in extra – axillary,

subumbellate, 3 – 8 flowered, pendulous cymes. Corolla white, divided more than half way

down. Anthers yellow notched at apex. Berries globose. Seeds ovoid, yellowish.

*Fls. & Frts*: August – January. Common, weed of wet fields and waste land.

*Distrib*: Common weed along road side and waste land Shendi near bypass. DCH – 1735.

#### Uses

#### Med

1. Jaundice: Leaves are shade dried and powdered 1 spoon of this powder is given daily
2. thrice for a week.
3. Itch and Ring worm: Leaf paste applied to treat itch and ring worm
4. \*Asthma: One tea cup extract of handful leaves with *Hemidesmus indicus* leaves in
5. equal proportion with 7 oil drops taken orally once a day for 41 days.
6. Liver disease: Fruit directly taken as tonic during liver infection.
7. Night blindness: Curry made by leaves is eaten for treating night blindness.
8. Scorpion sting: Paste of leaf applied externally on sting point to relieve pain.

Ed: Ripe fruits are eaten.

*Literature*: Jain, 1991-(lf) liver complaints, skin disease; Kapoor, 2001-(wp) jaundice, (lf)

*Withania somnifera* (L.) Dunal in DC. Prodr. 13 : 453. 1852, C.B. Cl. in Hook. f., Fl. Brit.

India 4 : 239. 1883; Cooke, Fl. Pres. Bombay 2 : 341. 1958 (Repr. ed.); Jain, Dict. Ethn. 187.

1991. 'Ashwagandha'.

Undershrubs, 30 – 50 cm high; stems erect, branched. Leaves 5 – 10 x 2.5 – 4.5 cm ovate,

acute at base, subacute at apex, stellately tomentose. Flowers greenish – yellow, in umbellate

– cymes. Berries ca. 0.6 cm across, red, enclosed in calyx. Seeds subreniform, yellow.

*Fls & Frts*: March – July.

*Distrib*: Common weed along road side and waste land

#### Uses

#### Med

1. Tonic: One table spoon powder of root with similar proportion of sugar taken

2. orally twice a day for 41 days.
3. \*Loose motions in children: Leaf paste applied externally on back bone until
4. cure.
5. Excess bleeding during menses: 2 tea spoon roots powder with pinch of *Piper*
6. *longum* seeds powder, *Elettaria cardamomum* seeds powder and black salt
7. (saindhava lavanamu) mixed together and pinch of it taken with cow ghee once a
8. day until cure.
9. Spermatogenesis: One table spoon whole powder taken orally once aday for 41
10. days.
11. Tuberculosis: One tea cup decoction of 5gm root powder with sugar taken twice a
12. day for 21 days.
13. Back ache: Root powder with root of *Vigna trilobata* Curculigo orchoides and seeds of *Mucuna pruriens* and *Barleria prionitis* taken equal proportion, prepare
14. powder one table spoon powder taken with milk twice a day for 15 days.

**Literature:** Jain, 1996-(rt) tonic; Chattarjee & Satyesh, 2003-09-(rt) tonic, menstruation troubles, spermatogenesis

#### Scrophulariaceae

**Sopubia delphinifolia** (L.) G. Don var. *delphinifolia*, Gen. Syst. 4:560, 1837; Hook.f.Fl. Brit.

India 4:302. 1884; Cooke, Fl. Pres. Bombay 2:378. 1958 (Repr); *Gerardia delphinifolia* L. in Juslenius Cent. Pl. 2:21. 1756. 'Dudhali'.

Erect, much branched herbs. Leaves opposite, pinnatisect, of ten tinged with dark purple.

Flowers axillary, solitary or in few Flowered terminal racemes. Corolla pinkish – purple, lobes broad, spreading. Capsules oblong. Seeds many, minute, striate, dark brown.

**Fls & Frts:** July – January.

**Distrib.:** Very common in grass lands, wet fields.

#### Use

#### Med

1. \*Cuts and Wounds: The juice of the plant is applied.

**Striga gesnerioides** (Willd.) Vatke Oester, Bot. Zeit. 2: 11. 1875; Godbole & Prasad in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 550. 2001. *Buchnera gesnerioides* Willd. Sp. Pl. 3:

338. 1800. *Striga orobanchioides* (R.Br. ex Endil.) Benth. In Hook. Comp. Bot. Mag. 1: 361, t. 19. 1836; Hook. f. Fl. Brit. India 4:299. 1884; Cooke, Fl. Pres. Bombay 2: 374. 1958 (Repr).

Erect, much branched, glabrous or pubescent, annual herbs, dark reddish – purple. Leave scale like, passing upwards into bracts. Flowers many, sessile, in terminal spikes. Corolla white or pink incurved about the middle. Seeds truncate at both ends, dark brown.

**Fls & Frts:** August – December.

**Distrib:** Common parasite on *Lepidagathis* a high altitude.

#### Use

#### Med

Diabetes: \*The plant extract is given to control diabetes.

#### Acanthaceae

**Eranthemum roseum** (Vahl.) R.Br.Prodr. 477.1810; Londhe in Singh *et al.* Fl. Maharashtra St. Dicot.

2:623.2001. *Justicia rosea* Vahl, Enum. 1:165.1804. *Daedalacanthus roseus* Anders. In J. Linn. Soc. 9: 487.1867; Cl.in Hook f.Fl.Brit. India 4:419. 1884; Cooke, Fl.Pres.Bombay 2:439.1958(Repr.).

Erect, branched, glabrous, undershrubs. Flower in axillary, solitary or paired, sessile. Corolla blue, fading rose- purple, pubescent outside, tube slender, limb susequally 5- lobed. Stamens 2, slightly exerted. Capsules tapering at both ends, glabrous. Seed 4, clothed with hygroscopic hairs.

**Fls & Frts:** Oct- Jan.

**Distrib:** Common in Forests.

#### Use

**Med:** Root: Root juice mixed with milk for Diabetes.

**Litareture:** Kamble S.Y *et al* 2010

**Haplanthodes verticillata** (Roxb.) Majumdar in Bull. Bot. Soc. Bengal 25: 76. 1971; Londhe in Singh *et al.* Fl. Roxb. Fl. Ind. 1: 135. 1832. *Haoplanthus verticillata* (Roxb.) Nees in DC. Prodr. 11:513. 1847; Cl. in Hook.f. Fl.Brit. India 4: 506. 1884; Cooke, Fl. Pres. Bombay 2; 452. 1958 (Repr.).

Stout, annual, pubescent herbs; axillary branches reduced to cladodes. Cladodes 4-angled, with 2, sharp spinous tooth at apex, pubescent. Flowers sessile. Corolla bluish-violet. Stamens 2, included. Capsules slightly compressed, acute, glandular hairy at the apex. Seeds rugose, hygroscopically hairy.

**Fls. & Frts.:** Nov.-Feb.

Very common on hilly slopes and in rocks crevices.

**Distrib**

#### Uses

**Med.:** Dried plant Powder given in fever. Leaf decoction is given to expel worm from intestine.

**Hygrophila schulli** (Buch., Ham.) M. R. & S. M. Almeida in J. Bombay nat. Hist. Soc. 83

(Suppl.); 221. 1986; *Bebel schulli* Buch – Ham. in Trans. Linn. Soc. Lond. 14; 289, 1825;

Jain, Dict. Ethno. 105. 1991. *Asteracantha longifolia* (L.) Nees in Wall Pl. Asiat. Rar. 3:90,

1832; Cooke, Fl. Pres Bombay 2:428. 1958 (Repr.), *Hygrophila spinosa* Anders. In Thw.

Enum, Pl. Zeyl. 225. 1860; Cl. in Hook. f. Fl. Brit. India 4:408. 1884. 'Kolshinda',

'Talimkhana'.

Stout herb with numerous fasciculate, usually unbranched subquadangular stems; nodes tumid, hispid with long hairs. Leaves sessile, in whorls of 6 at each node, the two outer ones much larger than 4 inner ones. Thorns from the axils of leaves sharp, yellowish brown.

Flowers in axillary clusters and at each node. Corolla purple – blue; limb 2 – lipped. Capsules

pointed. Seeds 4 – 8, black, compressed hygroscopically hairy. **Fl. & Frts:** June – February.

**Distrib.:** Common in wet and marshy places.

## Uses

**Med.:** Spermatogenesis: One table spoon powder of seeds with *Tribulus terrestris* fruits powder taken in similar proportion taken orally once a day for 41 days.

Ed: Curry is made by tender leaves.

**Literature:** Chatterjee & Satyesh, 2003 -09-spermatorrhoea.

**Lepidagathis cristata** Wild. Sp.Pl.2: 400. 1800; C.B. Cl. Hook, f., Fl. Brit. India 4 : 516. 1885., Cooke. Fl. Pre. Bombay 2:470. 1958 (Repr, ed); Jain, Dict. Ethno. 115. 1991. 'Bhuigend'.

Herbs, perennial; stems procumbent, root – stock woody. Leaves 5 – 7 x 8 – 10 cm, linear – oblong, margins spinous – serrulate. Flowers white or pale pink, bracts ovate – acuminate, spinous – tipped. Capsules ca. 0.5 cm long, ovoid – acute, glabrous. Seeds 0.2 – 0.3 cm long, ovoid – oblong, hygroscopically hairy.

**Fls. & Frts:** October – March.

**Distrib:** frequent on rocky soil in grassland.

## Use

**Med.:** Wounds and boils: Ash of its inflorescence with oil applied externally once a day until cure.

**Literature :** Jain, 1991-(wp) wounds.

## Verbenaceae

**Cleodendrum serratum** (L.) Moon. Cat.Pl. Ceylon 46: 382.1824; Cl.in Hook. f. Fl. Brit. India 4: 592. 1885; Cooke, Fl. Pres. Bombay 2: 512. 1958 (Repr.); Prasanna in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 691. 2001. *Volkameria serrata* L. Mant. 90.1767. Bharangi.

Shrub; stem bluntly quadrangular. Flowers in lax villous panicles, with bractiform leaves at the base of cyme. Calyx cup like, truncate or minutely 5- toothed pubescent. Corolla bluish purple or white; longest lobe dark bluish. Stamen definite, long exserted. Fruits drupaceous, 4-Lobed; pyrenes one sided.

**Fls. & Frt.:** Sep.-Nov.

**Distrib:** Common on hill slopes.

**Use:** Leaves: A decoction of leaves or stem used as a carminative and to relieve fever and chronic headache also leaves are used in skin diseases.

**Vitex negundo** L. Sp. Pl. 638. 1753; C.B. Cl. in Hook. f. Fl. Brit. India 4 : 583. 1885; Cooke.

Fl. Pres. Bombay 2 : 508. 1958 (Repr. ed). Jain, Dict. Ethn. 187. 1991. 'Nirgudi'.

Shrubs, 2 – 3 m tall; young parts grey – pubescent. Leaves compound; leaflets 5 – 10 x 1 – 2.5 cm, oblanceolate, acute at base, acuminate at apex, glabrous above, grey – pubescent below. Flowers purple to violet, in terminal panicles 15 – 20 cm long. Druped ca. 0.5 cm across, globose, dark purple to black.

**Fls & Frts:** More or less throughout the year.

**Distrib:** Common weed along road side and waste land.

## Uses

## Med

1. Fever: Leaves boiled in water and vapours inhaled.  
2. Body ache, Muscular pain & arthritic pain; Leaves boiled in water and bath is taken with luke warm water.

3. Rhumatism: One gram of powdered roots mixed with two ml of *Sesamum orientale* oil, mixed and taken twice a day for a week.

4. Ring worm and itch: Leaf paste applied externally to cure ringworm and itch.

5. Wounds: Leaf paste applied externally.

**Literature:** Chopra *et al.*, 1956; Jain, 1991; Varghese, 1996-(1f rt) fever, bodyache, Arthritic pain.

## Lamiaceae

**Anisomeles heyneana Benth.** In Wall. Pl. Asist. Rar.1:59.1830 Hook.f.Fl. Brit. India. 4:672.1885; Cooke, Fl.Pres. Bombay 2;543.1958 (Repr.); Kulkarni & Das Das in Sing *et al.* Fl. Maharashtra St. Dicot. 2:715.2001

A tall erect herb, Flowers subsessile or shortly pedicellate, in pedunculate second usually few flowered cymes. Corolla white or greenish white. Filaments bearded. Nutlets broadly ovoid, obtuse, subcompressed, the inner face slightly angled, the dorsal faces rounded, smooth polished, dark brown.

**Fls & Frts.:** Oct-Dec.

## Uses

## Med

1. Arthritic pain: Leaves boiled in water and hot water poured regularly on joints to relieve pain.
2. Scorpion sting: Leaf paste applied externally at the site of scorpion sting.
3. \*Leucoderma : Leaf paste applied externally on white patches.

**Literature:** Jain & De Filippis 1991 and Kirtikar & Basu 1933-(1f) Arthritic pain.

**Colebrookea oppositifolia J. E. Smith.** J. E. Smith Exot. Bot. 2: 111. t. 115. 1805; Hook.f. Fl.Brit. India 4: 642. 1885; Cooke, Fl. Pres. Bombay 2: 541. 1958 (Repr.); Kulkarni & Das Das in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 717. 2001. Bhaman.

Much branched, densely woolly or hoary shrubs. Leaves light green, crowded towards the ends, opposite or verticillate in threes. Flowers numerous, in paniculate often ternately arranged spikes.

**Fls & Frts:** Nov.- June.

**Distrib:** Common on hill slopes and along forest borders.

## Use

**Med:** Anthelmintic and corneal opacity or Keratoconjunctivitis: Juice obtained by pounding young leaves is used as anthelmintic. About 25-30 ml is fed once a day for 2-3 days. The juice prepared as above is dripped into the eyes with the help of a sprayer or with hand to treat opacity or conjunctivitis.

**Literature:** Acharya and Acharya 2009

**Hyptis suaveolens** (L.) Poit. Ann. Mus. Natl. Hist. Nat 7 : 472, t. 29, f. 2. 1806; Hook f. Fl.

Brit. India 4 : 630. 1885; Cooke Fl. Pres. Bombay 2 : 560. 1958 (Repr. ed). Jain, Dict. Ethno.

105. 1991. *Ballota suaveolens* L. Syst. Nat. (ed. 10):1100.1759.



Undershubs, 0.5 – 2 m high, branches obtusely 4 – gonous, hispid. Leaves 2.5 – 10.0 x 1.5 – 6.5 cm, broadly ovate, acute at apex, obliquely truncate to acute at base, margins irregularly serrulate. Flowers blue, in verticels or in short stalked cymes. Nutlets 2, ovoid or oblong, blackish – brown.

**Fls & Frts:** October – February.

**Distrib:** Frequent in open areas, near villages and wastelands; associated with *Abutilon*

*indicum*. *Tephrosia purpurea* etc. Aurangabad road DCH – 1752.

#### Uses

#### Med

1. Fever: Crushed leaves rubbed and massaged over body to reduce temperature.
2. Measles: leaf extract or juice is applied
3. Nasal haemorrhage: 2-3 drops leaf juice instilled in nose for 2-3 days.
4. Spermatogenesis: 1 tea spoon powder of seeds with sugar taken orally with one
5. glass of goat milk once a day for 15 days.
6. Wounds : Leaf paste applied for healing wounds.
7. Vet: To expel worms from wounds: Whole plant or leaf paste applied externally.

**Literature:** Jain1991 and Varghese,1996-(1f) fever, skin diseases.

**Pogostemon deccanensis (Panigrhahi) Press. Bull. Brit. Mus.**Nat.Hist.10: 73. 1982; Kulkarni & Das Das in Singh *et al.* Fl. Maharashtra St. Dicot.2:753.2001. *Eusteralis deccanensis* Panigr. In.Phytologia 32: 475. 1976. *Dysophylla tomentosa* Dalz. in Hook. J. Bot.2:337.1850; Hook. f. Fl.Brit. India 4: 641. 1885. *Dysophylla stellata* Benth. Var.tomentosa Cook. Fl.Pres. Bombay 2: 458. 1958(Repr.).

Low herb; stems numerous from a creeping rootstock. Leaves many in whorls. Flowers sessile in dense pubescent or tomentose spikes. Stamens much exerted, bearded with purple hairs. Nutles ellipsoid, smooth, yellowish- brown.

**Fls & Frts.:** Sep.-Feb.

**Distrib:** Common on plateaus, rice fields, ditches.

#### Use

**Med:** The root extract used in epilepsy

**Lavandula bipinnata** (Roth) O. Ktze. Rev. Grn. Pl. 521. 1891; Jain, Dict. Ethno. 114. 1991.

*Biseropogon bipinnata* Roth, Nov. Pl. SP. 255. 1833; *Lavendula burmanni* Benth. Lab. Gen.

& Sp. 151. 1833; Hook. f. Fl. India 4:631. 1885; Cooke Fl. Pres.Bombay 2:534.1958.(Repr.)

'*Asmani galgota*' '*Gorea*', '*Godeghui*' .

Erect viscid-pubescent herbs. Leaves sessile, pinnatifid. Flowers in simple or branched spikes floralbracts with strongly nerved base and capillary setaceous awns at apex longer than calyx,

Corolla tubular blue or with an elliptic auriculate areole on one face.

**Fls. & Frts:** September-January

**Distrib.:** Common on gravelly hill slopes,grassland.

#### Uses

#### Med

1. \*Tooth ache: Leaf paste is applied on gum to reduce toothache.
2. \*Cough: Leaf powder with pinch of clove powder is smoked in bidi for cough.

**Leonotis nepetifolia** (L.) R. Br., Prodr. 504. 1810; Hook f. Fl. Brit. India. 4:691. 1885;

Cooke. Fl. Pres. Bombay. 2:555. 1958 (Repr.): Jain, Dict. Ethno. 115. 1991.*Phlomis*

*nepetiifolia* L. Sp. Pl. 586. 1753 (*neptiifolia*). '*Dipmal*', '*Matisul*'.

Erect, woody herbs; stems obtusely 4-angled. Inflorescence globose, many Flowered, in head

like whorls. Calyx tubular, ribbed; teeth 8 – 9, unequal, spinous pointed. Corolla tubular,

orange – red, densely covered with orange red hairs, annulate with 3-transverse rings of white

hairs. Nutlets oblong obovoid, depressed at apex.

**Fls & Frts:** September – February.

**Distrib.:** Frequent on waste places around villages

#### Med

1. Burns: The ash of Flower is applied to burns.

2. Wounds and skin disease: Ash of inflorescence or leaves applied externally until cure.

**Literature :** Jain, 1991-(fl & sd) wounds; Ambasta *et al.*, 1992-(1f) skin affection, burns.

**Leucas longifolia** Bth. Lab. Gen. et. Sp. 744. 1835; Hook. f. Fl. Brit. India 4 : 684. 1885;

Cooke. Fl. Pres. Bombay 2 : 551. 1958 (Repr. ed). '*Dudhani Pandhari*' .

Herbs, 20 – 30 cm high; stems erect, pubescent. Leaves 1.5 – 5.5 x 0.1 – 0.6cm, linear,

tapering at base, obtuse to subacute at apex. Flowers in few – flowered, axillary whorls

forming apparent, terminal spikes. Nutlets *ca.* 0.25 cm long, obovoid – oblong and trigonous.

**Fls & Frts:** August – September.

**Distrib:** Frequent on roadsides; associated with *Indigofera trifoliata*. *Salvia plebeiam*.

#### Uses

**Med:** \*Cough and cold: 05-10ml of extract of flowers is taken thrice a day till cure.

**Leucas aspera** (Willd) Spr., Syst. Veg 2 : 743. 1825;*Leucas plukenetii* (Roth) Spr. Syst. Veg.

2 : 743. 1824. *Phlomis plukenetii*. Roth, Nov. Pl. Sp. 261. 1821; Hook f. Fl. Brit India 4 :

690. 1885; Cooke, Fl. Pres. Bombay 2 : 548. 1958. (Repr. ed.); '*Dudhani*'

Herbs, annual; stems up to 30 cm high, erect or diffuse, hairy. Leaves 2 – 6 x 0.5 – 1.3 cm, liner – lanceolate, to elliptic – lanceolate, cuneate at base, acute at apex, margins entire to

serrate. Flowers white in axillary and terminal, globose verticels. Nutlets oblong, subtruncate

at apex, back smooth.

**Fls & Frts:** September – October.

**Distrib:**

Common in grassland.

#### Uses

#### Med

1. \*Skin disease: 60-70 ml extract of leaves taken once a day for 5-8 days.

2. Jaundice: Fresh juice of young shoot is used as nasal drops.

**Ed:** Curry is made by leaves.

**Literature:** Ambasta, 2006 (lf) skin eruption.

**Leucas stelligera** Wall. Pl. Asiat. Rar. 1: 61. 1830; Hook. f. Fl. Brit. India 4: 688. 1885; Cook, Fl. Pres. Bombay 2: 553. 1958 (Repr.); Kulkarni & Das Das in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 735. 2001.

Erect, branched, softly pubescent or villous herbs. Flowers sessile, in dense many flowered terminal and axillary whorls. Calyx pubescent or tomentose, glandular. Corolla white, Nutles rounded at apex, the inner faces angular, the dorsal faces rounded smooth.

**Fls & Frts.:** Nov.-May.

**Distrib:** Very common at higher altitude.

**Uses:** The Plant is used orally in female as an Emmenagogue. (Mukherjee K. *et al.*, 2002.)

### Amaranthaceae

**Alternanthera sessilis** (L.) DC. Cat. Hort. Monsp. 4 : 77. 1813; Hook. f., Pl. Brit. India 4 :

731. 1885; Jain, Dict. Ethno. 19. 1991. *Gomphrena Sessilis* L. Sp. Pl. 225. 1753.

*Alternanthera triandra* Lam. Encycl 1 : 95, 1783; Cooke, Fl. Pres. Bombay 2 : 584. 1958

(Repr. ed). 'Chimut kata'

Herbs; stems and branches prostrate or ascending. Leaves 1.0 – 4.5 x 0.3 – 1.5 cm, linear – oblong, or lanceolate, obtuse or subacute at apex. Flowers white, shining in axillary, sessile heads. bracteoles scarious. Utricles 0.15 – 0.2 x 0.2 – 0.3 cm, obovate, compressed. Seeds suborbicular.

**Fls & Frts:** More or less throughout the year.

**Distrib:** Common in moist places; associated with *Eclipta prostrata*. *Ipomoea aquatica* etc.,

### Polygonaceae

**Persicaria glabra** (Willd.) Gomez de la maza in Ann. Inst. Segunda Enseñ. Habana 2: 278. 1896; Jadhav in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 805. 2001. *Polygonum glabrum* Willd. Sp. Pl. 2: 447. 1799; Hook. f. Fl. Brit. India 5: 34. 1886; Cooke, Fl. Pres. Bombay 3: 5. 1958 (Repr.).

Procumbent, perennial herbs; stem stout, green with reddish brown tinge at base. Flowers in panicle slender racemes. Perianth pink. Stamens 6-8, included. Style 2, connate at base. Nutlets compressed, biconvex, black, shining.

**Fls. & Frts:** Sep.- Feb.

**Distrib-** Very common in ponds.

**Use:**

**Med:** Plant Juice and rootstock used in pneumonia, consumption, jaundice, fever.

**Literature:** Indian Medicinal Plants An Illustrated Dictionary.

### Thymelaeaceae

**Gnidia glauca** (Fresen.) Gilg. Bot. Jahrb. Syst. 19:265. 1894; Londhe in Singh *et al.* Fl. Maharashtra St. Dicot. 2:836. 2001.

*Lasiosiphon glaucus* Fresen Fl. 21: 603. 1838. *L. eriocephalus* (Meissn.) Decne. in Jacq. Voy. Ind. Bot. 4 (3): 148. 1844; Hook. f. Fl. Brit. India 5: 197. 1886; Cooke, Fl. Pres. Bombay 3:36. 1958 (Repr.) Datpadi, Ra metha .

Shrub . Leaves opposite or scattered , simple. Flowers usually hermaphrodite , in axillary and terminal heads. Perianth

regular , tubular or campanulate , silky pubescent. Stamen 10 . Ovary superior, 1-celled . Fruits dry , ellipsoid , pointed , enclosed in perianth .

**Fls. & Frts:** Dec.- July.

**Distrib-** Very common on hilly slopes.

**Use:**

**Med:** Root: Root powder mixed with skimmed is taken orally for seven days for treatment of Rebbies.

**Literature:** Teklehaymanot, T. & Giday (2007)

### SANTALACEAE

**Santalum album** L. Sp. Pl. 349. 1753; Hook. f. Fl. Brit. India 5: 231. 1886; Cooke, Fl. Pres. Bombay 3: 49. 1958 (Repr.); Godbole & Lakshmi. in Singh *et al.* Fl. Maharashtra St. Dicot. 2: 850. 2001. Chandan.

Small, evergreen trees with drooping branches. Leaves opposite. Flowers inodorous, in terminal and long pedunculate shortly pedicellate, 5-10 flowered umbels, the peduncles of bisexual flowers with a tuft of hairs. Stamens 3; opposite to perianth lobes. Drupes yellow, subglobose.

**Fls. & Frts.:** Feb.-Nov.

Common along bunds of field, wild as well as cultivated.

**Uses:**

**Med:** Skin diseases: Stem bark paste applied externally.

**Literature:** Sudhakar Reddy. *et al.* Traditional medicinal plant in Seshachalam hills, Andhra Pradesh, India. Journal of Medicinal Plants Research, 2009; 3(5): 408-412

### EUPHORBIACEAE

**Acalypha indica** L. Sp. Pl. 1003. 1753; Hook. f., Fl. Brit. India 5: 416. 1887; Cooke, Fl.

Pres. Bombay 3:108. 1958 (Repr. ed). Jain, Dict. Ethno. 10. 1991.

'Khokali'

Herbs, 30-40 cm high; stems much branched, ascending, hairy. Leaves 2-5 x 1.5 cm, ovate or rhomboid-ovate, acute, crenate-serrate, glabrous, cuneate at base. Flowers unisexual. in axillary spikes; male flowers near the apex of the spikes. Female flowers at the lower half of the spikes; bracts campanulate, shortly dentate. Capsules hispid, concealed by bracts, often one-seeded. Seeds ovoid smooth.

**Fls. & Frts:**

**Distrib:** Very common on wasteland.

**Uses:**

**Med:**

1. \*Jaundice: Leaves with leaves of *Momordica charantia* taken in proportion of
2. given orally for 10 days to treat jaundice. Doses of 5 tablespoons are
3. recommended for adult and children respectively.
4. Itch and Ring worm: Leaves crushed with lime and applied externally.
5. \*Rat bite: Half tea cup juice of the leaves with 10-15 ml of *Sesamum orientale* oil
6. taken twice a day for three days.
7. \*Fits: 5-6 drops of leaves juice instilled in nose to control fits in children.
8. Intestinal worms: \*The leaf juice with little garlic given 5-10 ml to children as an anthelmintic.
9. Arthritic pains: A mixture of fresh leaf juice and oil is applied in treating arthritic pains.
10. Cough: Powder of whole plant 1 gm with few drops of honey is given twice daily for 4-5 days (or till required) to cure cough.

11. Asthma: Plant juice 10 ml mixed with old ghee 5ml massaged gently over to chest to get relief from asthmatic troubles.
12. Ear ache: One drop of leaf juice is put in ear to stop ear ache.
13. \*Jaundice: 9 leaves 9 black peppers and camphor are mixed and made into paste.

This paste is made into pills of peanut size. These pills are given every morning and evening during these days 2 teaspoons of leaf paste in curd daily once for 3 days.

11. \*Vet: Wounds: Leaf paste applied for healing wounds of cattle.

*Literatur:* eJain, 1991-(lf) skin disease, arthritic pain, cough, ear ache; Asolkar *et al.*, 1992-(lf) toothache.

**Chrozophora rottleri** (Gies) A Juss. ex Spr. Syst. Veg. 3:850. 1826; Jain, Dict. Ethno. 52.

1991. *Croton rottleri* Gies, *Croton* Monogra. 54:1807. *Chrozophora plicata* Voigt, Hort.

Sub. Calc 156. 1846, non A. Juss., 1824; Hook. f. FL. Brit. India 5:408. 1887; Cooke, FL.

Pres. Bombay 3:104. 1958 (Repr.ed). '*Jangali erand*'

Herbs, 20-40 cm high, monoecious; stems erect, fulvous – tomentose. Leaves 2-6 x 1.5-5.5 cm, broadly ovate, acute to subcordate at base, obtus at apex, alternate. Flowers unisexual, insubterminal, tomentose racemes. Capsules 0.5-0.6 cm across, depressed – globose. Seeds globose, shining.

*Fls. & Frts.:* December – July.

*Distrib:* Frequent in fallow fields

#### Uses

Med.: Cough: Root extract 10-15ml given twice a day to treat cough till cure.

Fish poison; whole plant is crushed and thrown in small ponds as a fish poison.

*Literature:* Jain, 1991 (rt) wough, (wp) fish poison.

**Coldenia procumbens** L. Sp.Pl. 125. 1753; Cl. in Hook.f. Fl.India 4:144. 1883; cook, Fl. Pres. Bombay 2:271.1958 (Repr.) Kulkarni in Singh *et al.* Fl. Maharashtra St. Dicot 2: 416. 2001. Tripkashi.

Prostrate or procumbent herbs. Leaves with crenate and cisped margins. Flowers solitary, axillary, nearly sessile. corolla white, fading pale yellow. Stamens 4. Fruit dry pyramidal, 4-lobed, separating into 1-celled beaked nutlets; nutlets muriculate hairy.

*Fls. & Frts.:* Aug.-Apr.

*Distrib:* common along margins of lakes, river banks.

Uses:

Med: Fresh leaves mixed with centella asiatica & Madhuca longifolia would give significant result in wound healing.

Plant extract also used in treatment of Piles.

*Literature:* Aleemuddin. MA, *et al.* (2011)

**Jatropha gossypifolia** L. L. Sp. Pl. 1006. 1753; Hook. f. Pl. Brit India 5:383. 1887; Cooke,

Fl. Pres. Bombay 3:94. 1958 (Repr.) Jain, Dict. Ethno. 109. 1991. '*Mogali Erand*'

Much branched shrubs, with yellow juice. Leaves alternate, 3 – 5 fid beyond the middle,

green or more often dark purplish – red, ciliate with stalked glands; stipules modified into

decourrent rows of stalked glands. Flowers to terminal, corymbose panicles. Calyx green

with purple tinge, gland – ciliate. Petals dark red. Seeds trigonous, glabrous, greenish – yellow. Seeds oblong, carunculate.

*Distrib.:* Common along road side.

*Uses*

Med

1. \*Eczema & itch: The leaves are applied to treat eczema and itches.

2. \*Jaundice: Seeds paste applied on eye lids daily once a day for 15 days. **Ricinus communis** L. Sp. Pl. 1007. 1753, Hook. f. Fl. Brit. India 5:457. 1887; Cooke, Fl.

Pres. Bombay 3:125.1958 (Repr.ed). Jain, Dict. Ethn. 155. 1991. '*Erend*'.

Shrubs, upto 4m tall, evergreen, monoecious. Leaves palmatifid, 5-10 lobed; lobes 7-15 x 4-

7 cm, lanceolate, margins serrate, acuminate at apex, petioles up to 20 cm long. Flowers

unisexual, in terminal, paniculate-racemes; male flowers below the female Flowers. Capsules

ca 2 cm across, 3 lobed, prickly. Seeds oblong, smooth, carunculate, marbled.

*Fls. & Frts.:* Throughout the year.

*Distrib.:* Common weed along road side and waste land.

*Uses*

Med

1. \*Eye pain: Seed oil is applied and kept as it is for 15 minutes then washed with water.

2. Constipation: *Ricinus* oil, honey and *Zingiber officinale* rhizome powder taken in 3:1

3. proportion and crushed to prepare a paste, 20-25ml taken with water at night.

4. \*Jaundice: 8-10 Tender leaves are ground finely with 8 pepper seeds and made into

5. pills of pea size, 1 pill is given once a day with cow milk. Half of the dose is prescribed

6. for children.

7. \*Mumps: One table spoon fine leaf paste with cow urine taken orally once a day and

8. applied externally until cure.

9. Cooling: One tea cup extract of roots with rice wash water taken orally once a day for 9 days.

Vet: Opacity of Cornea ( Due to injuries or infection): 10 drops seed oil light warm

and mix with *Coccinia grandis* leaves juice put in eyes once only.

*Literature:* Kapoor, 2001-(sd) constipation; Jain, 1996-(sd) constipation

**Ricinus communis** L. Sp. Pl. 1007. 1753; Hook .f. Fl. Brit. India 5; 457. 1887; Cooke . Fl. Pres. Bombay

3:125.1958 (Repr.); Londhe in Singh *et al.* Fl. Maharashtra St. Dicot 2:1001.2001. Er and .Erect, small tree; stem tetret,

hollow, swollen at nodes. Leaves spirally arranged, peltate, palmately 5-11 lobed. Flowers in narrow, terminal panicles

consisting of subsessile cyme of lower males and the upper female flowers. Female cyme 1-7 flowered. fruit covered with

soft prickles. Seeds curunculate at base, mottle with grey brown.

*Fls & Frts:* Feb. - June.

*Distrib:* Common weed along road side and waste land.

Uses: Tubers are used as a medicine. Tribal medicine men believed that consumption of tuber increases the body strength.  
Ref: Shinde SR (2015). Ethno-medico-botanical observation on some wild tuberous plants of Kinwat Forest Nanded. *Int. J. of life science* 3(3):263-266.

### Orchidaceae

**Habenaria grandifloriformis** Blatt. & McC. in J. Bombay nat. Hist. Soc. 36: 17. 1932 emend Sant. & Kapad. in J. Bombay nat. Hist. Soc. 56: 195. 1959 and Orch. Bombay 17, t. 1, f. 2-2' 11996; Lakshmi. in Sharma *et al.* Fl. Maharashtra St. Monocot. 38. 1996. *H. grandiflora* Lindl. Ex Dalz. & Gibs. Bombay Fl. 267. 1861 non Torr. ex Beck. 1823; Hook. f. Fl. Brit. India 6: 136. 1890; Cook, Fl. Pres. Bombay 3: 221. 1958 (Repr.). Terrestrial herbs, tubers globose or ellipsoid. Leaves opposite, broadly ovate to orbicular, rarely oblong lanceolate. Flower white, pedicellate, bracteate, in one to several flowered erect racemes. Lip 3-partite. Capsules strongly ribbed.

*Fls & Frts.*: Aug.-Dec.

*Distrib*: Very common species distributed throughout.

#### Use:

**Med**: Used in Ayurveda. Tuber powder with milk in general debility.

*Literature*: medplants. blogspot.com

**Habenaria marginata** Coleb. in Hook. Exot. Fl. 2, 17: 136: 1824 var. *marginata*; Hook. f. Fl. Brit. India 6: 150: 1890; Cooke, Fl. Pres. Bombay 3: 226. 1958 (Repr.); Sant. & Kapad. Orch. Bombay 33, t. 5, f. 17. 1966; Lakshmi. in Sharma *et al.* Fl. Maharashtra St. Monocot. 40. 1996. Perennial herbs, leaves elliptic-oblong with yellowish margin. Inflorescence spicate, dense. Flowers greenish-yellow, sessile, bracteate. Capsules fusi form, turgid, curved.

*Fls & Frts.*: Aug.-Dec.

*Distrib*: Rare

#### Use

**Med**: Thoroughly boiled plant extract taken in flatulence in wound and tonic.

Ref: 7 Badola HK Pal. M (2002). Endangered medicinal plant in Himachal Pradesh. *Curr. sci.* 83: 797-798.

### Zingiberaceae

**Curcuma pseudomontana** Grah. Cat. Bombay Pl. 210. 1839; Cooke, Fl. Pres. Bombay 3: 236. 1958 (Repr.); Mangaly & Sabu. *Rheedea* 3(2): 165. 1993; Lakshmi. in Sharma *et al.* Fl. Maharashtra St. Monocot. 76. 1996.

Scapigerous herbs, rhizome small, roots fibrous. Spike, lateral as well as central. Flowers with bright yellow stamens. Capsules subglobose, 3-valved. Seed many, arillate.

*Fls. & Frts.*: May-Sept.

*Distrib*: Rare.

#### Use

**Med**: Swellings due to wounds: Slightly warmed tuber paste used as an external application

*Literature*: Sudhakar Reddy. *et al.* Traditional medicinal plant in Seshachalam hills, Andhra Pradesh, India. *Journal of Medicinal Plants Research*, 2009; 3(5): 408-412

Note: It is an endemic species of Western ghats.

**Zingiber neesatum** (Grah.) Raman in Sald. & Nicols. Fl. Hassan Dt. 769. 1976; Lakshmi. in Sharma *et al.* Fl. Maharashtra St. Monocot. 85. 1996. *Alpinia neessana*. Grah.

Cat. Bombay Pl. 207. 1839. *Zingiber macrostachyum* Dalz. in Hook. Kew J. Bot. 4: 342. 1852; Baker in Hook. f. Fl. Brit. India 6: 247. 1890; Cooke, Fl. Pres. Bombay 3: 241. 1958 (Repr.). Nisam Tuberous herbs. Stem leafy, red, pubescent. Leaves sessile, lanceolate, acuminate. Flowers in long cylindrical spikes; corolla white or greenish-white; lip obovate, 3-lobed, pale yellow mark with diverging purple lines. Capsules pubescent, red. Seeds dark purple, aril white, large.

*Fls. & Frts.*: July-Sept.

*Distrib*: Frequent on hilly slopes.

**Use**: Rhizome: Used in stomach upset, sickness, nausea, and vomiting.

### Hypoxidaceae

**Curculigo orchiodes** Gaertn. Fruct. 1: 63. t. 13, 1788, Hook. f., Fl. Brit. India 6: 279. 1892; Cooke. Fl. Pres. Bombay 3: 255, 1958 (Repr. ed); Jain, Dict. Ethno. 64. 1991. '*Kalimusali*' '*Kajuri*' Perennial herbs; rootstock elongated with copious fleshy root fibres. Leaves sessile or petiolate linear or linear-lanceolate, membranous, plicate, base sheathing. Flower numerous in racemes, upper staminate, lower hermaphrodite, bright-yellow. Capsules hypogaeous, 1-4-seeded with a slender break; septa spongy. Seeds black.

*Fls. & Frts.*: June - November.

*Distrib*: Common on rocky hill slopes, waste places. Ghatghar. DCH - 1679.

#### Uses

#### Med

- \*Hydrocele: One table spoon rhizome powder with 1 glass cow milk and 1 table
- spoon ghee taken together orally once a day for 40 days.
- \*Face glow: Rhizome paste prepared with goat milk and mixed with honey
- applied externally for skin glow.
- \*Hiccough and Vomiting: 1 tea spoon powder of its rhizome with *Achyranthes*
- aspera* L. roots taken orally with water once only to stop hiccough & vomiting.
- \*Body ache: One tea cup juice of rhizome with *Zingiber officinale* rhizome in
- equal proportion, taken orally twice a day for 7 days.
- Jaundice: 4 gm rhizome powder with *Cuminum cyminum* seeds 2:1 proportion taken orally once a day for 7 days

**Literature**: Ambasta *et al.*, 1992-(rt) tonic & jaundice; Chattarjee & Satyesh, 1988-2008-(rt) tonic & jaundice.

### Agavaceae

**Agave americana** L. var. *marginata* Trel., Bailey. Man. Cult. Pl. 239. 1949, Naik, Fl., Marathwada 2; 846. 1998. '*Ghaypat*'. Perennial robust herbs or undershrubs. Leaves linear lanceolate or oblong lanceolate in a rosette, dark green and yellow, twisted, marginal spines erect or recurved. Flowers numerous, yellowish green on a large scape or stalk. Perianth lobes elliptic lanceolate or linear lanceolate. Capsules trigonous.

*Fls. & Frts.*: January - March.

**Distrib:** Planted in gardens and very common on wasteland Shendi near S, T.. stand. DCH – 1825.es

**Uses**

**Med**

1. \*Ear ache: Leaf heated on fire crushed and juice instilled in ear twice a day.
2. \*Cooling: 30-40 ml of leaf extract with jaggery taken once a day for 5-6 days.
3. \*Swelling and boils: A thin slices of the large fleshy leaves warmed over fire and kept on boils to reduce swelling and relieve pain.

**Liliaceae**

**Gloriosa superba** L. Sp.Pl.305. 1753; Hook.f.Fl. Brit. India 6: 358. 1892; Cook, Fl. Pres. Bombay 3: 274. 1958 (Repr.).Lakshmi.in.Sharma *et al.*Fl. Maharashtra St. Monocot.137. 1996. Bachnag, Kal-lawi.Perennial herbaceous climbers; stem and branches terete. Leaves ovate, lanceolate, acuminate and often coiled at apex. Flowers large, solitary or in subcoymabose cymes. Perianth green, turning yellowish green below middle and red above at maturity. Stamens 6; filaments exserted; filaments dark purple. Capsules fusiform, dark green. Seeds subglobose, angular, black.

**Fls. & Frts.:** July- Nov.

**Distrib:** Frequent along forest borders, on hills admist bushes and in grassl and.

**Use**

**Med:** Leaves are made into paste and applied to hair to kill lice. (Trivedi P.C., Sharma N.K. 2009)

**COMMELINACEAE**

**Commelina benghalensis** L. Sp. Pl. 41.1753; Hook. F., FL. Brit. India 6:370. 1892; Cooke Fl. Pres. Bombay 3:291. 1958 (Repr.ed). Jain, Dict. Ethno. 59. 1991. ‘Kena’. Herbs; stems 40-60 cm long, slender, dichotomously branched, creeping, Leaves 3.0 – 7.5 x 1.5-4.5 cm ovate, oblong or elliptic-oblong rounded, cuneate or cordate at base, obtuse at apex. Flowers blue, in 2-3 flowered, spatulate cymes. Capsules 0.5-0.6 cm long, membranous, pyriform. Seeds -5, oblong, pitted.

**Fls. & Frts :** August – December.

**Distrib.:** Very common weed on moist places along roadside, Pravarasangam DCH – 1620.

**Uses**

**Med**

1. Wounds: Leaf paste applied on wounds.
2. Ed.: Leaves used as vegetable and also for making pakodi .

**Literature:** Jain, 1991. (lf) wounds; edible.

**Cyanotis tuberosa** (Roxb.) J.A. & J.H. Schult. var. *adscendens* (Dalz.). Cl. in Dc. Monogr.

Phan. 3:249. 1881; Hook. f. Fl. Brit. India 6:386. 1892; Cooke, Fl. Pres. Bombay 3:302.1958. (Repr.); *C. adsendens* Daiz. In Hook. J. Bot. 4:343. 1852. ‘Abhali’ Perennial ascending or procumbent herbs; stems and branches rooting at nodes. Leaves linear – lanceolate or oblong – lanceolate, glabrescent. Flowers in cymes. Corolla blue. Capsules truncate, rugose.

**Fls & Frts :** June – November.

**Distrib. :** Common in grasses.

**Use**

**Med**

Fever: Fresh root juice 5-10ml taken in fever for 3 days.

Literature: Ambasta, 2006 (rt) febrifuge.

**RESULT AND DISCUSSION**

Present work is the result of intensive and exhaustive ethnobotanical explorations of Durgawadi sacred groove is a small Village/hamlet in Junnar Taluka in Pune District of Maharashtra State, India. It comes under Hatvij Panchayath. It belongs to Desh or Paschim Maharashtra region. It belongs to Pune Division. In the present study, during the period from 2018 to 2019. Ethnobotanical information is collected

**Table 1** Habit of plants

Sr. No	Habit	Number of plants
1.	Herb	53
2.	Shrub	21
3.	Tree	6
4.	Climber	2
5.	Parasite	1
6.	Twiner	2

In the present study there are herb (53) shrubs (21) trees(06) climbers(02) parasites (01) twiners(02)

**Table 2** Analysis of plant part used as medicine

Sr.No.	Plant part used	Number of plant
	<i>Seed</i>	06
	<i>Root</i>	20
	<i>Rhizome</i>	02
	<i>Tuber</i>	02
	<i>Whole Plant</i>	23
	<i>Stem</i>	06
	<i>Leaves</i>	40
	<i>Inflorescenes</i>	01
	<i>Flower</i>	08

The analysis of plant part used as medicine *Seed*(06) *Root*(06) *Rhizome*(02) *Tuber*(02) *Whole Plant*(23) *Stem*(06) *Leaves*(40) *Inflorescenes*(01) *Flower*(08)

**Table 3** Mode of administration

Sr.no	Mode of administration	Number of plant
1	Plants used as internal mode of administration	68
2	Plants used as external mode of administration	35

Plants used as internal mode of administration (68) Plants used as external mode of administration (35)

**Table 4** Five Dominant families for medicine and food.

Family Name	No of Genera	No of species
Asteraceae	09	09
Lamiaceae	06	08
Euphorbiaceae	05	05
Acanthaceae	03	03
Convolvulaceae	03	05

The five dominant families of which maximum number of species used for medicine in the region are Asteraceae (09 Genera and 09species), Lamiaceae (06 Genera and 08 species), Euphorbiaceae (05Genera and 05species) Acanthaceae (03Genera and 03species), Convolvulaceae(03Genera and 05species) Total plant species used in medicine are 124. Of these, herbaceous species are 53, treespecies 06, shrubs 21 and climbers 02. Parasite 01 Twiner 02

**Table 5** Uses of Plant Species

Sr. No	Uses of Plant Species	No of Plant Species used
1.	Medicinal uses	124
2.	Edible	11
3.	Veterinary medicine	06
4.	Miscellaneous uses	03
5.	Fish poison	02
Total		146

**Table 6** Disease wise plant uses

Sr.no	Disease Name	Number of Plants used
1.	Wounds	25
2.	Jaundice	15
3.	Skin diseases- Scabies, itch and ringworm	13
4.	Fever	12
5.	Arthritic pain	10
6.	Body ache and swelling	08
7.	Cough	07
8.	Eye and Ear Problem	06
9.	Constipation	06
10.	Scorpion sting	05
11.	Snake bite	05
12.	Stomach pain	05
13.	Tooth problem	04
14.	Diabetes	04
15.	Boils	04
16.	Leucorrhoea	03
17.	Urinary disorder	02
18.	Piles	02
19.	Asthama	02
20.	Intestinal worms	02
21.	Hernia	02
22.	Ulcer	01
23.	Gonorrhoea	01
24.	Nail Infection	01
25.	Epilepsy	01
26.	Rat bite	01
27.	Fits	01
28.	Liver disease	01
29.	Rabbies	01

## CONCLUSION

Such studies may provide information to the workers in the field of pharmacology and phytochemistry in screening of individual species, for particular disease. Further investigations on utilitarian plants to check their efficacy and safety are necessary, so that those can be further utilized for medicinal purposes in proper way.

The formulation herbal drugs either with single plant or a mixture of more than one plant, with appropriate mode of use and dosage should be encouraged. As the plants are being used successfully by the tribals, their properties can also be confirmed with the biological screening experiments.

Although, the local people have some sense of plant conservation, there is need to take necessary steps for the conservation of plants, which are the potential source of herbal medicine and food.

Ethnobotanical investigations would be helpful in identifying basic needs of the local people, so that steps could be taken to cultivate these plants in the forests around villages or to persuade indigenous people, communities to domesticate the plants which they need most, so that they need not depend and disturb the forests.

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**How to cite this article:**

Salman Shaikh and Mulya J. R (2019) 'Utilitarian Aspects of Durgawadi Sacred grove Tahasil Junner District Pune, Maharashtra India', *International Journal of Current Advanced Research*, 08(03), pp. 18008-18030.  
DOI: <http://dx.doi.org/10.24327/ijcar.2019.18030.3435>

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