



# **A Field Guide to Medicinal Plants of Bumthang**

UWICER Nature Guide Series

Vol.1



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## PREFACE

The Ugyen Wangchuck Institute for Conservation and Environmental Research (UWICER) is Bhutan's first research and education institute for environmental conservation. We seek to understand and uncover the ecological, socio-economic and policy dimension of biophysical systems and their impact on human ecology. We pay special attention to understanding climate in Himalayan ecosystems.

We conduct professional courses for both the national and international participants in the areas of conservation biology, sustainable forestry, water resources and management and socio-economic aspects in addition to offering two years certificate course in the environment, forestry and conservation.

We envision offering research-based courses in the above fields in close collaboration with the Royal University of Bhutan and international universities.

This publication inventory on "A Field Guide to Medicinal Plants of Bumthang" was conducted in 2017 by the staff of UWICER within Bumthang Dzongkhag covering all four Geogs with the elevation ranging from 2000masl to over 4000masl. We document 108 species of medicinal plants found in Bumthang areas. This publication aims to make communities aware and understand the medicinal plants and their usage. We also hope that this publication will provide a handy and easy reference for the interested individual, nature lovers and the general public.

It is promising to note that the team from UWICER has inputed efforts to develop this useful guidebook. I would like to congratulate Rinchen Drakpa and the team for producing this informative guide book.



**Shacha Dorji**

**Director**

**Ugyen Wangchuck Institute for Conservation and Environmental Research**

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## FOREWORD

It gives me pleasure to write a short note on this field guidebook on “A Field Guide to Medicinal Plants of Bumthang” by Ugyen Wangchuck Institute for Conservation and Environmental Research (UWICER). This book will enable users to understand brief family and species description, its location, altitudinal range, flowering season and uses. It is also heartening to note that a team from UWICER has invested hard work to produce this guide book.

This document 108 species of medicinal plants found within Bumthang areas. This publication aims to make communities aware and understand the medicinal plants and their usage. I also hope that this publication will provide a handy and easy reference for the interested individual, nature lovers and the general public.

UWICER has produced series of guidebooks on different subjects based on the evidence collected from their research activities, and this publication is one of them. The institute has delivered professional courses to both the national and international participants in the areas of conservation biology, sustainable forestry, water resources and management and socio-economic aspects. The two-year certificate course offered in the environment, forestry and conservation is one of the primary mandates of the institute.

The institute envisions offering research-based courses in the above fields in close collaboration with the Royal University of Bhutan and international universities.

Lastly, I take the privilege to congratulate all the staff of UWICER who has put efforts and hard work in the development of this Field Guidebook.



**Phento Tshering**

**Director**

**Department of Forests and Park Services**

## ACKNOWLEDGEMENT

This publication on “**A Field Guide to Medicinal Plants of Bumthang**” would not have been materialized without the support of numerous people. We owe this to Mr. Sangay Wangchuk, Head of the Center for Forestry Science and Technology (CFST) for his advice and guidance in writing this field guide book.

The team would like to thank Mr. Dawa Yoezer, for allowing us to use some of his plants’ photo. We thank Mr. Tashi Dendup, for sharing his idea on development of this book.

We are indebted to all the local communities of Bumthang who rendered logistics and accompanied us during the field work. We extend our gratitude to Phrumsengla National Park, Wangchuck Centennial National Park and Bumthang Territorial Divisions’ staff who helped us during our fieldwork.

We are also grateful to all the individual, colleagues and family for their encouragement and support provided to us in the development of this publication.

## INTRODUCTION

Bhutan although the landlocked and tiny country located in the lap of Eastern Himalayas has diversity of plants across the varied ecological zones. Over 7700 species of vascular plants are known to occur in Bhutan and many of these plants pose medicinal value. Over the centuries Bhutanese have enjoyed this wealth.

*Gso-ba-rig-pa* which means the “Knowledge of Healing” is a natural and holistic medicinal science reported to be originated in India and developed in Tibet. The Bhutan Government recognized *gso-ba-rig-pa* as an alternative health care system in 1967. In fact, Bhutan is known as Menjong the “land of the medicinal plants” due to availability of medicinal plants across the country ranging from sub-tropical forests to alpine meadows. Over 200 species of medicinal plants are used by the Institute of Traditional Medicine of the Ministry of Health to formulate our age old traditional medicines for the health care of the people of Bhutan (*Ministry of Agriculture & Forests, 2008*).

Although the philosophy of *gso-ba-rig-pa* goes back to 3rd century, the three fundamental principles, a physio-pathology and treatment regimen dates back to 8th century. The roots of the *gso-ba-rig-pa* took place since the arrival of Guru Rimpoche in the country in 746 A.D (*Pharmaceutical and Research Unit, Institute of Tradition Medicine Services, 2009*)

This publication documents 108 species of illustrated medicinal plants with colour photographs. However, we are not rigid to this figure; it could be more than 108 species as we were unable to cover whole areas. For each species we have provided botanical name, common name, family, brief description, flowering time, photographed location, parts used, uses, and the respective species' habitat elevation range. It aims to educate and inform people about the medicinal plants and their usage. We also hope that this publication will provide a handy and easy reference for the interested individual, nature lovers and the general public.

The species of plants in this book is arranged following the system of Engler and Parantl system as reflected in Flora of Bhutan. The information provided here will help users to understand with brief family and species description, its location, altitudinal range, flowering season and uses.

## **URTICACEAE (Nettle Family)**

Monoecious, rarely dioecious perennial herbs, sometimes woody at base, with stinging hairs. Leaves opposite, serrate or crenate, pinnately veined above, palmately 3-5 veined at base; cystoliths punctate; stipules free or connate and interpetiolar. Flowers in axillary clusters of drooping panicles. Male flowers with deeply 4-lobed perianth and 4 stamens. Female flowers with 4-lobed perianth, segments in dissimilar pairs, ovary ovoid, stigma sessile, and brush – like. Achenes compressed, enclosed by 2 enlarged perianth segments.





**Botanical name:** *Girardiana diversifolia* (Link) Friis.

**Common name:** Stinging, Nettle plant (Eng)

**Brief Description:** Leaves variables, stalked and palmately lobed with lanceolate long-pointed coarsely toothed lobes and stinging hairs. Flowers are greenish in terminal and axillaries branched spikes.

**Flowering time:** July - August

**Elevation ranges:** 1900 – 3300 masl

**Part used:** Leaf, whole plants and roots.

**Uses:**

Cures headache, snake bite, constipation, ringworm, and gonorrhea.

**Photographed Location:** Tang.



## **CANNABACEAE (Hemp Family)**

Dioecious, erect annual herbs. Leaves alternate or opposite at base, palmately compound, stipulate. Male flowers in short pendulous panicles, perianth of 5 free segments, stamens 5. Female flowers sessile, crowded in short leafy spikes, perianth unlobed, closely enveloping ovary, beaked at apex; ovary sessile, 1-locular, style deeply 2-fid, filiform; ovule solitary, pendulous. Fruit an achene enclosed by persistent perianth.





**Botanical name:** *Cannabis sativa* L.

**Common name:** Marijuana or Hemp (Eng)

**Brief Description:** Leaves narrowly elliptic to lanceolate acuminate attenuate base and serrated margins with fine pubescent beneath. Flowers are resinous-glandular, greenish - brown with pale lines.

**Flowering time:** June - August

**Elevation ranges:** 300 - 3000 masl.

**Part used:** Seeds

**Uses:**

- Remedies for wind disorders.
- Act as an aphrodisiac and helps penile erection, improves eyesight.
- Treat insomnia, relieves severe pain and control cancer.

**Photographed Location:** Chamkhar.



## **POLYGONACEAE (Dock or Knotweed Family)**

Medium sized family of herbs and some are shrubs found largely in the northern temperate regions. Flowers small numerous which are grouped into branched inflorescences. Leaves are simple and alternate with a basal sheath and stipules. Flowers are regular 3-6 Perianth segments which enlarged in fruit. Stamens 6-9, style 2-4 with superior ovary, 2-4 fused carpels, 1 chamber, and 1ovule and fruit nutlet triangular.





**Botanical name:** *Bistorta macrophylla* D.Don

**Common name:** red knotweed or large leaf knotweed (Eng)

**Brief Description:** Leaves oblong acute to broadly linear with rounded base and long – stalked lower leaves. Flowers are pink or red numerous in rounded or oval terminal cluster.

**Flowering time:** June - August

**Elevation ranges:** 1700 - 4500 masl

**Part used:** Leaves and roots

**Uses:**

- Treats wounds and stomach problems.

**Photographed Location:** Bribdungla





**Botanical name:** *Rheum nobile*  
Hook.f. & Thomson.

**Common name:** Chhukha Meto (Dz),  
Noble rhubarb or Sikkim rhubarb (Eng)

**Brief Description:** Leaves broadly  
ovate or orbicular, long and broad,  
obtuse and rounded or cordate base  
and sparsely pubescent. Flowers are  
yellow or white.

**Flowering time:** June - August

**Elevation ranges:** 4250 - 4600 masl

**Part used:** Leaves and flowers.

**Uses:**

- Useful for swelling and sensation in  
the abdominal area
- Retain body fluid.

**Photographed Location:** Gangkar  
Puensum.





**Botanical name:** *Rheum australe* D. Don

**Common name:** Chu –Tsa (Dz)

**Brief Description:** Leaves basal acute, and sparsely pubescent. Flowers are dark red in axillaries white.

**Flowering time:** June - September

**Elevation ranges:** 3400 - 4080 masl

**Part used:** Roots.

**Uses:**

- Effective for indigestion and wounds.

**Photographed Location:** Porjela.





**Botanical name:** *Rumex nepalensis* Sprengel.

**Common name:** Shomang (Dz), Dock (Eng)

**Brief Description:** Leaves oblong – ovate, obtuse or subacute with cordate base and puberulous beneath. Flowers are greenish to red.

**Flowering time:** May - July

**Elevation ranges:** 1,500 – over 2,500 masl

**Part used:** Roots.

**Uses:**

- Subside sores fever.
- Relieve swelling and diphtheria.
- Kills worms.
- Treat diseases arising from poisoning.
- Purifies blood and remedies constipation.

**Photographed Location:** Lamai Goempa.



## **PHYTOLACCACEAE (Pokeweed Family)**

Tropical family of herbs, shrubs, trees and woody climbers. Flowers are small and clustered and regular usually with one whorl of 4-5 Perianth –segments which persist in fruit. Stamens 4-5 or numerous. Ovary superior, one or many separated or united carpels and each with single ovule. Leaves alternate, simple, entire, stipules absent or minute.





**Botanical name:** *Phytolacca acinosa* Roxb.

**Common name:** Indian poke or American pokeweed (Eng), Kashakani (Dz)

**Brief Description:** Leaves elliptic, acute, attenuate base, entire margins with purplish erect stems. Pinkish racemes with depressed-globose and dark purple.

**Flowering time:** April - September

**Elevation ranges:** 900 - 2500 masl

**Part used:** Roots.

**Uses:**

- Used as analgesic, anti-dote and for cough and cold.
- Remedies poisoning and lowers fever due to poisoning.
- Treats ascites due to cirrhosis of liver and pestilential kidney fever.

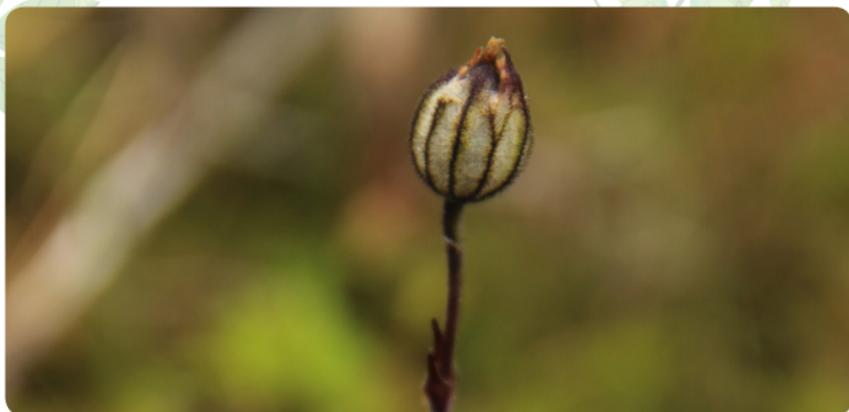
**Photographed Location:** Chumey



## **CARYOPHYLLACEAE (Pink or Carnation Family)**

Herbaceous annual and perennial plants and has distinctive and uniform character. Leaves are opposite arising from swollen nodes, simple and undivided. Flowers are in clusters and rarely solitary and regular. Sepals 4-5 either free or fused, petals 4-5, stamens twice as many as petals. Ovary superior 2-5 fused carpels with 1 chamber and numerous ovules borne on a central axis. Fruits are with capsule splitting by teeth at the apex.





**Botanical name:** *Silene gonosperma*  
(Ruprecht) Bocquet

**Common name:** Ra – Tsu (Dz)

**Brief Description:** Leaves oblongate, acuminate, attenuate base and fine pubescent. Flower solitary, green with dark purple ribs.

**Flowering time:** June - September

**Elevation ranges:** 3000 – 4,880 masl

**Part used:** Aerial parts.

**Uses:**

- Remove dirt from the skin and clear ear blockage.

**Photographed Location:** Bribdungla.



## **TAMARICACEAE (Tamarisk Family)**

Small family of health – like trees and shrubs. Leaves are arranged alternate, small, needle or scale-like and without stipules. Flowers are usually in dense spikes or racemes, tiny, and regular. Sepals and petals are free 4-5 borne on fleshy nectar – secreting disk and stamens are twice as many. Ovary is with 2-5 carpels with a single chamber and 2-5 styles with capsule fruit. Seeds are with long hairs.





**Botanical name:** *Myricaria rosea*  
W.W. Smith.

**Common name:** Whom-Bu (Dz), Rosy  
False Tamarisk (Eng)

**Brief Description:** Leaves tiny,  
numerous and lanceolate on main  
vegetative shoots, subacute, and  
narrow base with entire margins.  
Leaves on lateral shoot are linear.  
Stems brown woody spreading.  
Flowers are pink or purplish in dense  
bracteates racemes.

**Flowering time:** May - August

**Elevation ranges:** 3350 - 4250 masl

**Part used:** Aerial parts.

**Uses:**

- Relieves dropsy and cough.

**Photographed Location:** Rodungla.



## **RANUNCULACEAE (Buttercup Family)**

Herbaceous plants found mostly in the temperate and cool regions. Leaves are divided or lobed either all basal from a rhizome or swollen root or alternate on the flowering stems and usually perennials. Perianth segments 2-3 whorls and outer segments whorls 5 or more and sometimes absent. Stamens spirally arranged and many. Ovary few or many spirally arranged free carpels, rarely 1 and either with numerous ovules and splitting in fruit. Fruits are in clusters or follicles.





**Botanical name:** *Aconitum laciniatum* (Bruehl) Stapf.

**Common name:** Aconite, monkshood, wolf's bane, leopard's bane, mousebane, women's bane, devil's helmet, queen of all poisons, or blue rocket (Eng).

**Brief Description:** Leaves deeply dissected with widely spaced flowers in racemes. Obovate lateral sepals, recurved spur and linear oblong.

**Flowering time:** July - August

**Elevation ranges:** 3500 - 4570 masl

**Part used:** Tuber, leaves, flowers and Roots.

**Uses:**

- Allays bone disease, gout, chronic infection and leprosy.
- Roots are used medicinally and for making poison for arrow.

**Photographed Location:** Bribdungla.





**Botanical name:** *Thalictrum chelidonii* DC.

**Common name:** Ngo Tin Loma (Dz), Meadow – rue (Eng)

**Brief Description:** Leaves ovate or sub orbicular with coarsely and toothed or lobed margin and pubescent. Flower mauve or purplish.

**Flowering time:** June - September

**Elevation ranges:** 2130 - 4570 masl

**Part used:** Whole plant.

**Uses:**

- Treat infection diseases.
- Heals sores and dries fluids
- Effective against intestinal fever.

**Photographed Location:** Chokhortoe.





**Botanical name:** *Anemone rivularis*  
DC.

**Common name:** River Anemone or  
River Wildflower (Eng)

**Brief Description:** Leaves broadly  
elliptic or rhombic, acute cuneate base  
with serrate margins and pubescent.  
Flowers white.

**Flowering time:** April - August

**Elevation ranges:** 1980 – 3960 masl

**Part used:** Seeds.

**Uses:**

- Promotes body heat.
- Heals cold tumor.
- Used against rotting tissue.
- Draws out serous fluids, snake poisoning, stomach pain.

**Photographed Location:** Bribdungla.

## **PAPAVERACEAE (Poppy Family)**

Annual and herbaceous perennials with milky or watery latex found mainly in the northern temperate regions. Flowers are regular and sometimes irregular. Sepals 2, petals 4-6 often crumpled stamens 2-4 or numerous. Ovary superior 2 or many fused carpels with 1 chamber which is partially divided. Fruit a capsule splitting by pores or valves and rarely not splitting. Leaves are spirally arranged and dissected.





**Botanical name:** *Meconopsis paniculata* Prain

**Common name:** Upel metog (Dz)

**Brief Description:** Rosette leaves elliptic deeply pinnatifid and sometimes pinnatifid near base. Lobes ovate or oblong, acute or obtuse, coarsely crenate or serrate. Flowers yellow, numerous pendulous, borne singly in upper part and in lateral cymes in lower part.

**Flowering time:** June - August

**Elevation ranges:** 3350 - 4260 masl

**Part used:** Flowers.

**Uses:**

- Useful for fever due to lung and liver disorders.
- Promote digestion and alleviates phlegm disorder.

**Photographed Location:** Bribdungla.





**Botanical name:** *Meconopsis horridula* Hook.f. & Thompson.

**Common name:** Tshernoin Metog (Dz), Blue Poppy (Eng)

**Brief Description:** Leaves rosette, oblanceolate, obtuse or subacute, base long attenuate, and margins entire or crenate lobed near apex. Flower blue arising from single-flowered leafless scapes basal rosette.

**Flowering time:** June - August

**Elevation ranges:** 3800 - 4700 masl

**Part used:** Aerials parts.

**Uses:**

- Allays bone fracture, wounds and it is useful for revitalizing the synovial fluids.

**Photographed Location:** Gangkar Puensum.



## **PODOPHYLLACEAE (Podophyllum Family)**

Perennials herbs. Flowers are 1-3 borne on petiole of upper leaf, bisexual and pendulous. It has 3 sepaloid, 6 petaloid and 6 stamens with longitudinal slits anthers. Perianth is 9 in 3 series. Ovary is solitary with superior carpel and numerous ovules. Fruit is fleshy berry with numerous seeds. Leaves are alternate, simple borne at the apex of stem and palmately lobed and veined.





**Botanical name:** *Podophyllum hexandrum* Royle.

**Common name:** Himalayan May Apple (Eng), Yelmo Tse (Dz)

**Brief Description:** Leaves deflexed, brownish, orbicular-reniform in outline, palmately divided almost to the base into 3 broadly elliptic or obovate segments, acute, cuneate base, serrated margins and pubescent beneath. Erect and solitary flower with obovate petals, white or pink and reddish and ovoid fruit borne on pedicel.

**Flowering time:** May - June

**Elevation ranges:** 3100 - 4400 masl

**Part used:** Seeds

**Uses:**

- Ease female gynecological problems, paralysis, blood and kidney disorders.

**Photographed Location:** Bribdungla.



## **DROSERACEAE (Sundew Family)**

Small cosmopolitan family of carnivorous plants with leaves with long red glistening gland- tipped hairs. It attracts insects which trap in the sticky gum. The leaf – blade folds round the prey and slowly digests. Flowers are regular and clusters. 5 sepals, petals and stamens. Ovary superior with 2-3 or 5 fused carpels. Fruits are capsule.





**Botanical name:** *Drosera peltata*  
Thunberg.

**Common name:** Shield sundew or  
pale sundew (Eng)

**Brief Description:** Basal leaves  
usually absent, has numerous stem  
leaves with alternate peltate lamina.  
Flower white.

**Flowering time:** June - September

**Elevation ranges:** 1800 - 3600 masl

**Part used:** Aerial parts.

**Uses:**

- Useful for tonic, haematinic and  
sharpen sense organs.

**Photographed Location:** Ura.





## **FUMARIACEAE (Fumitory Family)**

This family is annual or perennial and glabrous herbs. Flowers irregular with 2 lipped; the upper lip hooded and spurred and the lower lip boat – shaped keeled; 2 lateral petals narrow. Fruit 2 –valved with few to many seeded capsule. Ovary is superior with 1 celled and 1- many ovules and 1 style. Leaves are alternate, and sometimes opposite with 1-4 pinnatisect or ternatisect.





**Botanical name:** *Corydalis crispa* Prain.

**Common name:** Bugleweed or carpet Bugleweed (Eng), Ba-sha-ka (Dz)

**Brief Description:** Leaves numerous, ovate, finely biternatisect appearing somewhat pinnate; obovate, mucronate segments. Flowers yellow with broad rounded crest outer petals.

**Flowering time:** July – September

**Elevation ranges:** 3350 - 4570 masl

**Part used:** Whole plants.

**Uses:**

- Allays blood, liver and bile disorders.

**Photographed Location:** Bribdungla.





**Botanical name:** *Hypecoum leptocarpum* Hook.f. & Thomson.

**Common name:** Pa-ta (Dz)

**Brief Description:** Leaves in rosette at base and pinnatisect. Flowers small and whitish-violet or pinkish and often yellow inside arranged in inflorescence.

**Flowering time:** April - September

**Elevation ranges:** 2750 - 4000 masl.

**Part used:** Whole plant.

**Uses:**

- Use for treating cough and cold, skin diseases, blood pressure and poisoning.
- Treat fever caused by poison, fever of blood and liver, unripe and skin disease.

**Photographed Location:** Ura.



## **CRUCIFERAE (Mustard Family)**

Herbaceous plants with a distinctive and uniform floral structure. Flowers are in racemes or cymes without bracts. Sepals 4, petals 4, and arranged in a cross and has stamens 6. Ovary with 2 fused carpels, 2 chambers each with numerous ovules. Fruit splitting into 2 valves leaving a persistent cross-wall. Some fruits are not splitting when ripe and other break up into 1 selected section. Leaves usually alternate without stipules, simple and sometimes compound.





**Botanical name:** *Capsella bursa-pastoris* (L.) Medikus.

**Common name:** Shepherd's purse (Eng), Tso-ka-pa (Dz)

**Brief Description:** Leaves basal runcinate-pinnatifid, acute, shortly petiolate base, sparsely pubescent with ovate-lanceolate stem leaves. Bears are small and white flowers with four petals and six stamens borne in loose racemes and produce flattened seed pods which are triangular to heart-shaped containing seeds.

**Flowering time:** June-July

**Elevation ranges:** 2250 - 2500 masl

**Part used:** Aerial parts.

**Uses:**

- Remedy of vomiting, treats vascular diseases.
- Cures water retention due to kidney fever and stop bleeding.
- Use as Anti-emetic.
- Ingredients of the symbolic dish



consumed in Japan's spring festival.

- One of the characteristic of Korean dish.
- Used in the traditional Austrian medicine ass tea to treat skin, Locomotors system, cardiovascular system, hemostasis and gynaecologic problems.

**Photographed Location:** Ura.



**Botanical name:** *Thlaspi arvense* L

**Common name:** Drega (Dz)

**Brief Description:** Leaves oblong – lanceolate or oblanceolate, obtuse or acute, with acute base and shallowly serrate margins. Flowers are white and deeply notched at apex.

**Flowering time:** April

**Elevation ranges:** 2,200 – 4,000 masl

**Part used:** Aerials.

**Uses:**

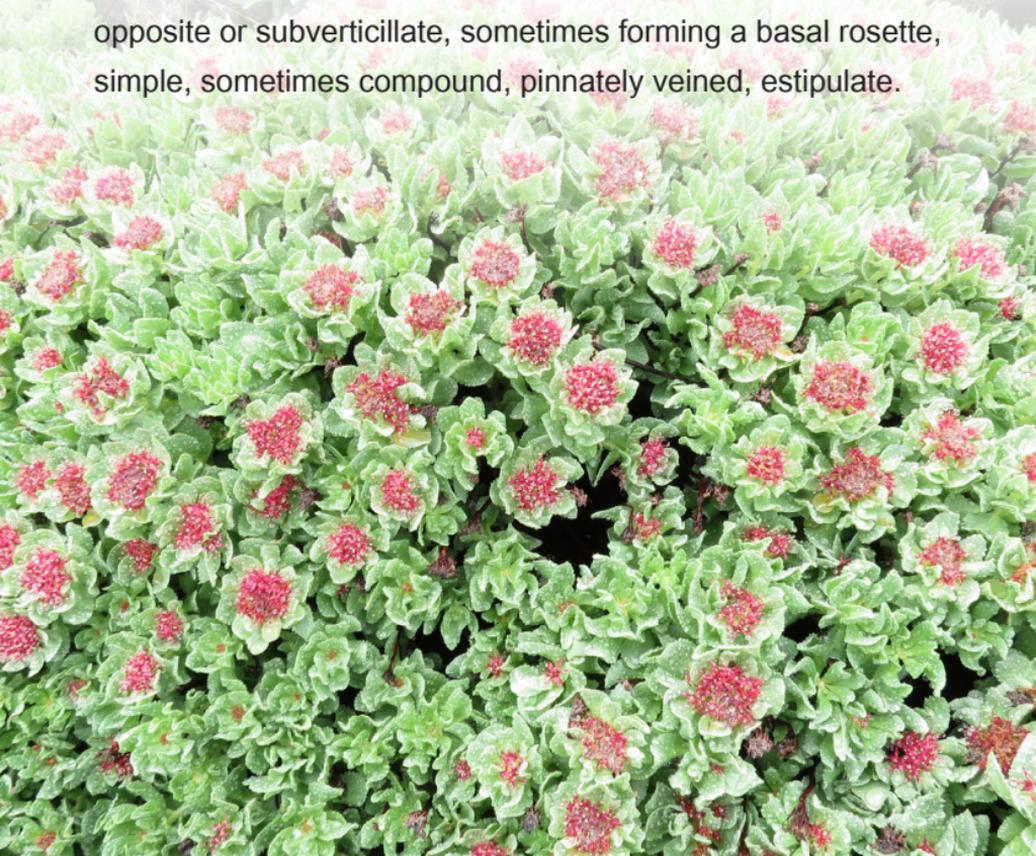
- Ease inflammation in the lung and kidney.
- Reduces undesirable accumulated fluids in the body joints.

**Photographed Location:** Ura.



## **CRASSULACEAE (Stonecrop Family)**

Succulent herbs and sometimes woody at base. Flowers are in cymes, corymbs or panicles, actinomorphic, (3 – 4) 5 (- 6) - merous, bisexual or unisexual. Sepals shortly united at base into a tube. Petals free or  $\pm$  connate, sometimes forming a tubular corolla. Stamens as many or twice as many as petals free or united with them. Carpels superior or semi-inferior, as numerous as petals, free or united at base, 1 –celled. Nectar glands scale-like, alternating with carpels and inserted at their base. Fruit a cluster of follicles often surrounded by persistent perianth parts. Seeds few or numerous. Leaves are alternate, opposite or subverticillate, sometimes forming a basal rosette, simple, sometimes compound, pinnately veined, estipulate.





**Botanical name:** *Rhodiola crenulata*  
(Hook.f. & Thomson) Ohba.

**Common name:** Tsu –Lu-Marpo (Dz),  
Golden root (Eng)

**Brief Description:** Leaves are elliptic  
arranged in upper parts of stem,  
obtuse or subacute with cuneate base.  
Flower petal dark violet and linear  
elliptic.

**Flowering time:** May - July

**Elevation ranges:** 4570 - 4880 masl

**Part used:** Roots.

**Uses:**

- Relieves skin diseases, bad breath.
- Strengthen lung.

**Photographed Location:** Gangkar  
Puensum



## **SAXIFRAGACEAE (Saxifrage Family)**

Herbaceous plants found mainly in the northern temperate zone. Flowers are regular usually with 5 sepals and petals and sometimes 4 sepals and petals. Stamens equals to petals in number or twice as many. Ovary with 2 carpels and rarely more and fused at base tapering into stigmas with flat or cup-shaped. Fruits are capsule splitting along the inner edges of the carpels. Leaves are simple often forming rosette.





**Botanical name:** *Chrysosplenium forrestii* Diels.

**Common name:** Indian poke or American pokeweed (Eng), Kashakani (Dz)

**Brief Description:** Leaves elliptic, acute, attenuate base, entire margins with purplish erect stems. Pinkish racemes with depressed- globose and dark purple.

**Flowering time:** April - September

**Elevation ranges:** 900 - 2500 masl

**Part used:** Roots.

**Uses:**

- Used as analgesic, anti-dote and for cough and cold.
- Remedies poisoning and lowers fever due to poisoning.
- Treats ascites due to cirrhosis of liver and pestilential kidney fever.

**Photographed Location:** Bribdungla.



## **ROSACEAE (Rose Family)**

Herbaceous plants, shrubs and trees. Flowers are showy and large with 5 sepals and petals and numerous stamens. Ovary is with many carpels and rarely one. Fruits are very varied, dry or fleshy with one or many carpels which are either free or fused together. Leaves are alternate, simple or compound with stipules; thorns and prickles occur in some genera on leaves and stems.





**Botanical name:** *Fragaria nubicola* (Hook.f.) Lacaita.

**Common name:** Strawberry (Eng), De-Ta-Zin (Dz)

**Brief Description:** Leaves obovate or entire, obtuse, base cuneate, sharp serrated margins with whitish pubescent beneath. Flowers petals with broad obovate white Acehnese borne on succulent red globose receptacle with sharp and pleasant flavour.

**Flowering time:** April - June

**Elevation ranges:** 2000 - 3600 masl.

**Part used:** Whole plants.

**Uses:**

- Relieve neurological disorders, chest infection and lungs inflammation.
- Remedy for serious fluid and blood in the chest, drains mucus from the lungs and lowers fever entering the veins.

**Photographed Location:** Lamai Goempa.





**Botanical name:** *Cotoneaster microphyllus* Lindley

**Common name:** Rock Spray cotoneaster or Chinese Spray

**Brief Description:** Leaves elliptic or obovate with glabrous above and appressed pubescent beneath. Flowers petal are white or tinged pink with subglobose and scarlet fruit.

**Flowering time:** April - July

**Elevation ranges:** 2100 - 4570 masl

**Part used:** Fruits.

**Uses:**

- Stop excessive blood loss during menstruation. Cure bile disorders.

**Photographed Location:** Ura.





**Botanical name:** *Potentilla arbuscula*  
D. Don.

**Common name:** Penma (Dz)

**Brief Description:** Leaves pinnate, elliptic, acute or obtuse, apiculate, rounded base, with entire margins, sparsely or densely silky pubescent on both surfaces. Flowers are solitary on short lateral shoot and yellow with rounded and obovate petal.

**Flowering time:** May - August

**Elevation ranges:** 3050 - 4100 masl

**Part used:** Aerial parts.

**Uses:**

- Effective for cough and cold.

**Photographed Location:** Gangkar  
Puensum.





**Botanical name:** *Rosa macrophylla* Lindley.

**Common name:** Tse-Go (Dz), Himalayan rose (Eng)

**Brief Description:** Leaves ovate – elliptic, acute, rounded base with finely serrate margins and glabrous above, sparsely pubescent beneath. Flowers are purplish densely covered with short stalked glandular bristles and lanceolate lobes.

**Flowering time:** June - July

**Elevation ranges:** 2100 - 3800 masl

**Part used:** Fruits.

**Uses:**

- Relieves constipation, cough and cold.
- Use for liver and bile disorder.
- Heals abscess.

**Photographed Location:** Ura.





**Botanical name:** *Rosa sericea*  
Lindley.

**Common name:** Sew Shing (Dz)

**Brief Description:** Leaves oblong or narrowly obovate, acute or rounded, base cuneate, margin usually serrate near apex otherwise entire, glabrous or pubescent above and fine sericeous beneath. Flowers are solitary on short lateral shoots. Calyx tube turbinate with lanceolate lobes. Petal is yellow or creamy and free style.

**Flowering time:** April - June

**Elevation ranges:** 1220 - 3800 masl

**Part used:** Flowers.

**Uses:**

- Treats bile and air related disorders.

**Photographed Location:** Ura





**Botanical name:** *Rubus biflorus* Smith.

**Common name:** Tak-Tse-Metog (Dz)

**Brief Description:** Gland-tipped hairs restricted mostly to petioles; some leaves are occasionally pinnately 5-foliolate; terminal leaflet often deeply lobed; flowers and pedicels subglabrous and glandular; calyx cup without prickles, lobes ovate, short pointed, glabrous; petals white; fruit orange.

**Flowering time:** May - July

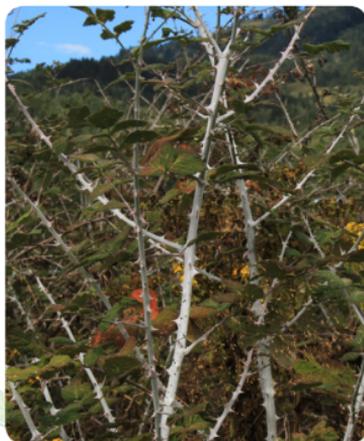
**Elevation ranges:** 2300 - 3500 masl

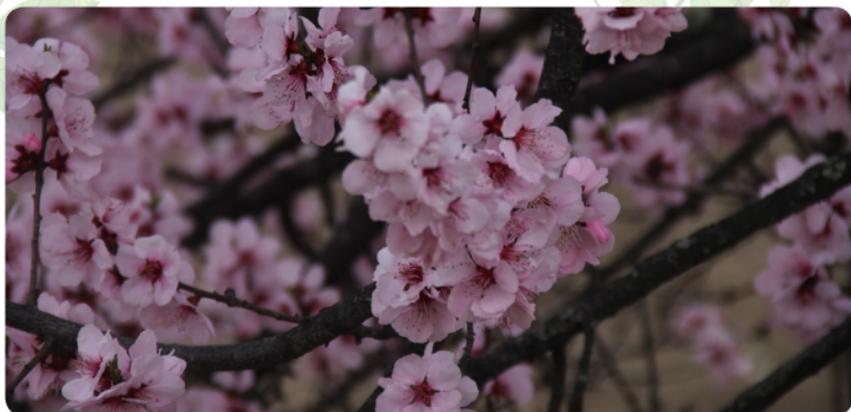
**Part used:** Stem without bark.

**Uses:**

- Reduce blood pressure, common cold, and pleural effusion.

**Photographed Location:** Lamai Goempa





**Botanical name:** *Prunus persica* (L.) Batsch.

**Common name:** Kham (Dz), Peach (Eng)

**Brief Description:** Leaves lanceolate, acuminate, rounded base, serrated margins and pubescent beneath. Flowers are usually solitary and pink or red.

**Flowering time:** February - April

**Elevation ranges:** 250 – 2800 masl

**Part used:** Fleshy part of the fruit, kernel and flowers.

**Uses:**

- Use to treat hair loss.
- Heals sores and dries pus.
- Balance internal and external fluid in the body.
- Remedies constipation.

**Photographed Location:** Lamai Goempa.



## LEGUMINOSAE (Pea Family)

Herbaceous plants, shrubs, trees and climbers. Divided into 3 sub-families with flowers which appear to be different but has the same floral pattern. The inflorescence is usually a raceme with clustered flowers. Sepals are often fused 5, petals 5 and stamen usually 10. Ovary is with a single carpel and style. Fruit is valve with dry or fleshy pod and split into 2 with 1 or many seeds. Leaves are usually compound with stipules and sometimes with tendrils.





**Botanical name:** *Thermopsis barbata*  
Royle.

**Common name:** Losi Metok (Dz)  
Golden banana (Eng)

**Brief Description:** Leaves elliptic – oblanceolate, acute with cuneate base and decurrent lateral leaflets on petiole and covered with densely pale coloured hairs. Flowers are dark purple, long and broad wings, oblong petals, rounded at apex.

**Flowering time:** May - July

**Elevation ranges:** 3,400 – 4, 250 masl

**Part used:** Entire plant.

**Uses:**

- Reduce bile fever, epidemic diseases and worm diseases.
- Eases swelling of serious diseases.
- Relieve acute and severe pain.
- Effective against hypertension.
- Treats rabies.

**Photographed Location:** Gangkar  
Puensum



## **GERANIACEAE (Geranium Family)**

Annual and perennial herbaceous plants and some shrubs found mostly in temperate and sub-tropical regions. Flowers are regular, solitary or sometimes in flat – topped clusters. 5 sepals and petals with 2-3 whorls and 5 in each whorl. Ovary superior, of one –seeded carpels fused round a central axis which with the styles forms a beak. And carpels split off from the beak. Leaves are usually lobed with stipules.





**Botanical name:** *Geranium refractum*  
Edge worth & Hook.f.

**Common name:** Storks bills (Eng),  
Lha-gang (Dz)

**Brief Description:** Leaves basal  
cordate divided into rhombic lobes with  
dissected teeth, and short pubescent  
with upper leaves broadly oblong –  
ovate. Flowers are white or pale pink.

**Flowering time:** June - August

**Elevation ranges:** 3650 - 4600 masl

**Part used:** Roots.

**Uses:**

- Allays diarrhea and small intestine  
disorder.

**Photographed Location:** Bribdungla.



## **EUPHORBIACEAE (Spurge Family)**

Large and important family of trees, shrubs and herbaceous plants mainly found in the tropics regions. Inflorescences are variable and complex. Flowers are regular, unisexual with usually 5 perianth segments. Stamens, 1 or numerous. Ovary superior with 3 fused carpels, 3 chambers and each chamber with 1-2 ovules. Fruit is capsule or drupe. Leaves are simple or palmate.





**Botanical name:** *Euphorbia wallichii*  
Hook.f.

**Common name:** Wallich Spurge,  
Himalayan Spurge (Eng), Thar-Ru  
(Dz).

**Brief Description:** Leaves are green,  
lanceolate and entire. Flowers cluster  
and yellow with kidney shaped.

**Flowering time:** May - August

**Elevation ranges:** 4000 - 4800 masl

**Part used:** Roots.

**Uses:**

- Use for edema, eczema, pimples  
and fungal infections.

**Photographed Location:** Bribdungla.





**Botanical name:** *Euphorbia griffithii*  
Hook.f.

**Common name:** Spurge fire glow  
(Eng), Dhurji (Dz)

**Brief Description:** Leaves linear or lanceolate, acute with cuneate base. Flowers orange or red.

**Flowering time:** May - August

**Elevation ranges:** 2300 - 3500 masl

**Part used:** Root barks.

**Uses:**

- Use as purgative and anti-inflammatory.

**Photographed Location:** Lamai  
Goempa.



## **MALVACEAE (Mallow Family)**

Herbaceous plants, trees and shrubs widely distributed family. Flowers regular with 5 sepals fused at the base and outer set 3-8 sepal-like segments, 5 petals free and numerous stamens. Filaments are united to form a tube surrounding the ovary and styles. Ovary with 4 or more carpels and similar number of styles. Fruits are dry capsule or splitting into one seeded units. Leaves are alternately arranged and usually simple with stipules with often star-shaped hairs.





**Botanical name:** *Malva sylvestris* L.

**Common name:** Niga (Dz), Common mallow (Eng)

**Brief Description:** Leaves sub orbicular with shallow lobes, cordate base and crenate margin, sparsely pubescent. Flower petals pink to purple in dense auxiliary.

**Flowering time:** September

**Elevation ranges:** 3650 - 4200 masl

**Part used:** Aerial parts.

**Uses:**

- Regenerate kidney.
- Heals wound.

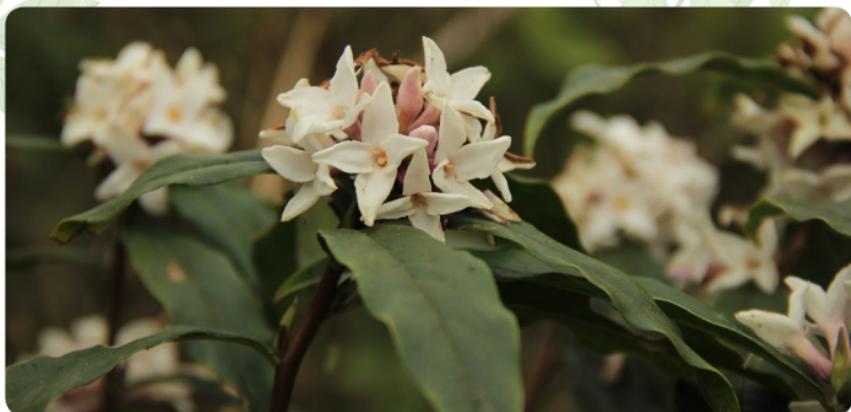
**Photographed Location:** Ura.



## **THYMELAEACEAE (Daphne Family)**

Medium – sized family found mainly of shrubs found in both temperate and tropical regions. Flowers are regular with parts in four or five. Petals –like lobes borne on the rim and appearing continuously with it. Stamens inserted in the receptacle-tube, half to twice as many as the lobes. Nectar – disk often present. Ovary is at the base of the receptacle-tube usually with one or two fused carpels and each with one ovule. Fruit an achene, achene, drupe, or berry. Leaves are entire, alternate and without stipules.





**Botanical name:** *Daphne bholua* D. Don.

**Common name:** De Shing (Dz)

**Brief Description:** Leaves elliptic – oblanceolate, acute or acuminate and clustered at branch ends with cuneate base. Flowers are pink or purplish with white lobes and strongly fragrant.

**Flowering time:** February - May

**Elevation ranges:** 1980 – 3400 masl

**Part used:** Barks and roots

**Uses:**

- Used to treat fever

**Photographed Location:** Lamai Goempa.



## **ELAEAGNACEAE (Oleaster Family)**

A small family of shrubs. Flowers are regular bisexual or unisexual with 2-8 lobe perianth and fused in a single whorl. Petals is absent, stamens 4-8, receptacle flat or tubular. Ovary is with one carpel and one ovule and long style. Fruit one- seeded unit and often enclosed by thickened lower part of the persistent perianth. Leaves and stems are covered with distinctive silvery, brown, or golden scaly or flat-topped hairs. Leaves are leathery, entire and without stipules.





**Botanical name:** *Hippophae salicifolia*  
D. Don.

**Common name:** Tari caum, Tarbu  
(Dz), Sea buckthorn (Eng)

**Brief Description:** : Leaves linear-oblong with upper surface hairy and lower surface tomentose, whitish with reddish brown midrib with white flowers. Fruits are orange yellow to greenish brown.

**Flowering time:** April - June

**Elevation ranges:** 2133 - 2755 masl

**Part used:** Fruits.

**Uses:**

- Useful to treat tuberculosis and liver diseases

**Photographed Location:** Chamkhar.



## **VIOLACEAE (Violet Family)**

Herbaceous perennial plants found mainly in the temperate regions. Flowers are usually solitary, regular or irregular. Sepals 5, free and persistent, 5 free petals and 5 stamens united by base in a ring around the ovary. Ovary with 3 fused carpels with one chamber and many ovules. Fruits are in a capsule which splits explosively into 3 valves.





**Botanical name:** *Viola biflora* L.

**Common name:** Ngotamik (Dz), Dog violet (Eng)

**Brief Description:** Leaves broadly ovate, obtuse or subacute and cordate base and shallowly serrate margins and pubescent on upper surface. Flower petals yellow.

**Flowering time:** June - September

**Elevation ranges:** 2,285 – 3,350 masl

**Part used:** Leaves, stems, flowers and seeds.

**Uses:**

- Heals sores and joint fracture bones.
- Controls haemorrhage.
- Relieves headaches.

**Photographed Location:** Wangthangla.



## **CUCURBITACEAE (Gourd or Cucumber Family)**

Herbaceous climbing plants and wide spread in tropical and sub-tropical regions and poorly represented in the temperate regions. Flowers are one –sexed usually with yellow petals and inferior ovary. Usually present 5 sepals and petals borne on a cup-shaped or tube –like extension of the receptacle and fused petals. 3 petals fused by different parts in different genera. Ovary inferior with one chamber. Fruits are either firm-walled berries or dry capsules. Leaves are palmately veined, simple or lobed leaves and usually with tendrils.





**Botanical name:** *Herpetospermum pedunculatum* (Seringe) Clarke.

**Common name:** Nata lily or bush lily  
Natal lily or bush (Eng), Sergi-meto (Dz)

**Brief Description:** Leaves ovate, slightly lobed, acuminate, cordate base, serrated margins, pubescent on both surfaces. Flowers yellow with ellipsoid fruit.

**Flowering time:** August –October

**Elevation ranges:** 2133 - 3050 masl

**Part used:** Seeds

**Uses:**

- Lowers fever and remedy hemorrhoids.
- Relieve bile and intestinal disorders.

**Photographed Location:** Ura.



## **ONAGRACEAE (Willow-Herb Family)**

Family of annual or perennials plants which is rarely shrubs with simple leaves. Flowers are borne in racemes, regular or weakly asymmetrical. Sepals usually 4 and free, 4 free petals with 8 stamens. Ovary inferior of 4 fused carpels. Fruits are in capsule splitting longitudinally with many seeds.





**Botanical name:** *Epilobium latifolium* L.

**Common name:** Willow-Herb (Eng)

**Brief Description:** Leaves narrow-elliptic and hairy beneath with spreading stems. Flowers are purplish-pink borne in the axis of leafy bracts with rounded short-stalked petals.

**Flowering time:** July - August

**Elevation ranges:** 3600 - 4500 masl

**Part used:** Entire plants except roots.

**Uses:**

- Remedy for water retention in the body and dysuria.
- Lowers fever arising from rheumatoid arthritis and effective against painful ache.

**Photographed Location:** Rodungla.



## **ARALIACEAE (Ivy Family)**

Medium-sized trees, shrubs, climbers and herbs found mainly in tropical regions. It is also found in temperate regions. Flowers are small, often greenish or whitish in small umbels. Calyx 4-5 or absent. 5 petals and 5 stamens borne on a disk and situated above the ovary. Ovary is with 5 fused carpels with 5 chambers. Fruits are a drupe and contain 5 seeds. Leaves are alternate, often large and compound with small stipules and often with star-shaped hairs.





**Botanical name:** *Panax pseudo ginseng* Wall.

**Common name:** Pseudo ginseng (Eng), Ginseng (Dz)

**Brief Description:** Leaves palmate, ovate or lanceolate, acuminate, rounded or cuneate base with serrated margins. Petals white with scarlet fruits.

**Flowering time:** May – September

**Elevation ranges:** 1500 - 3650 masl

**Part used:** Rhizomes

**Uses:**

- Cure dropsy and body swelling.
- Enhance physical (including sexual) and mental performance and increases energy and resistance to the harmful effects of stress and aging.

**Photographed Location:** Gangkar Puensum





**Botanical name:** *Hedera nepalensis*  
K. Koch.

**Common name:** Ivy (Eng);

**Brief Description:** Leaves ovate–lanceolate, acuminate with rounded or cuneate base and usually 3–lobed on prostrate rooting stems and unlobed on flowering stems. Fruits orange and bright yellow with tiny yellowish–green in stalked globular umbels.

**Flowering time:** April - July

**Elevation ranges:** 1800 - 3000 masl

**Part used:** Leaves and fruits.

**Uses:**

- Applied on ulcers.
- Leaf juice useful for dyspepsia.

**Photographed Location:** Bim –  
Tharpaling.



## **UMBELLIFERAE (Umbellifer Family)**

Herbaceous plants with distinctive inflorescences and fruits. Flowers are typically in flat-topped umbels which are of two types either simple or with bracts at the base, and with several stalks, primary rays each terminating in a flower; or compound which consist few or more primary rays subtended by bracts and each rays ending in a secondary umbels of flowers. Each secondary has bracteoles at its base. Present 5 tiny sepals or absent, 5 petals often notched and 5 stamens. Ovary inferior with 2 celled. Fruits of 2 and one –seeded units. Usually hollow stem and leaves mostly compound and sheathing at the base.





**Botanical name:** *Pleurospermum amabile* Craib & W.W. Smith.

**Common name:** Paper cup flower (Eng), Tsedpa (Dz)

**Brief Description:** Leaves pinnately divided with distinctively winged petiole. Lamina of upper leaves shorter than winged petiole, ovate with linear segments. Petal is dark purple and silvery - white bracteoles. Stylopodium purple - black; style yellow – green. Fruits are small and oblong.

**Flowering time:** July - September

**Elevation ranges:** 3950 - 4700 masl

**Part used:** Aerial parts

**Uses:**

- Used as anti-dote, febrifuge and for indigestion.
- Cure sinuses.

**Photographed Location:** Bribdungla





**Botanical name:** *Selinum wallichianum* DC.

**Common name:** Bam – Po (Dz)

**Brief Description:** Leaves pinnate, ultimate segments ovate – oblong, deeply pinnatifid, lobes acute and finely pubescent. Flowers umbel rays densely to moderately white papillose- puberulent.

**Flowering time:** July - September

**Elevation ranges:** 2300 – 4000 masl

**Part used:** Aerial parts.

**Uses:**

- Use as anti-tumor and anti-inflammatory.

**Photographed Location:** Gathrak.

## **ERICACEAE (Health Family)**

A large cosmopolitan family, that is mainly of shrubs, or shrublets. Flowers are regular, calyx 4-5 fused at the base, petals 4-5 fused to form a funnel-shaped, flask-shaped, or bell-shaped corolla with short lobes and stamens usually 8-10 borne on the receptacle. Ovary is superior or inferior with 4-5 fused carpels usually with 1-5 chambers with many ovules. Fruits are in capsule. Leaves are simple usually alternate and evergreen without stipules. Inflorescences are variable ranging from umbels, racemes to solitary flowers.





**Botanical name:** *Cassiope fastigata* (Wall.) D. Don.

**Common name:** Himalayan Heather (Eng)

**Brief Description:** Leaves ovate-oblong with white membranous and ciliate margins. Sepals are with tinged-red, papery and ciliate margins with white petals, glabrous and pilose filament.

**Flowering time:** May – September

**Elevation ranges:** 3650 - 4570 masl

**Part used:** Entire plants except roots.

**Uses:**

- Effective against inferno-like epidemic fever.

**Photographed Location:** Bribdungla.





**Botanical name:** *Lyonia ovalifolia* (Wall.) Drude.

**Common name:** Fetterbush (Eng)

**Brief Description:** Leaves ovate, acuminate apex and rounded to cordate base. Flowers corolla cylindrical white, sometimes tinged pink towards apex.

**Flowering time:** May - August

**Elevation ranges:** 1500 – 2600 masl

**Part used:** Leaves and seeds.

**Uses:**

- Applied on wounds and boils.

**Photographed Location:** Ura.





**Botanical name:** *Rhodendron anthopogon* D. Don.

**Common name:** Bha - Lu (Dz), Dwarf Rhododendron (Eng)

**Brief Description:** Leaves ovate, rounded, mucronate, and rounded base with sparsely scaly above, densely scaly beneath. Flower corolla white, pink, or yellow.

**Flowering time:** May - August

**Elevation ranges:** 3650 - 4700 masl

**Part used:** Flowers.

**Uses:**

- Heals body and face swelling caused by phlegm disorder.
- Regain health of a weak person.

**Photographed Location:** Gangkar Puensum.





**Botanical name:** *Rhododendron setosum* D. Don.

**Common name:** Tsu - Lu (Dz), Dwarf Rhododendron (Eng)

**Brief Description:** Leaves oblong-ovovate, rounded, truncate or shallow retuse, rounded base, with yellow scaly above. Flowers are corolla pale to deep purple and deeply lobed and glabrous outside.

**Flowering time:** June - August

**Elevation ranges:** 2770 - 4800 masl

**Part used:** Leaves.

**Uses:**

- Use as ingredient in incense making.
- Relieves *grang – ba and gag – lhog*.

**Photographed Location:** Bribdungla.





**Botanical name:** *Rhododendron arboretum* Smith.

**Common name:** ETO Meto (Dz), Dwarf Rhododendron (Eng)

**Brief Description:** Leaves elliptic – oblanceolate, acute or acuminate, cuneate base, white, silvery or tomentose surface. Flowers corolla tubular – campanulate, bright red, pink or rarely white with dark spots and nectar pouches.

**Flowering time:** March - June

**Elevation ranges:** 1200 - 3000 masl

**Part used:** Flowers.

**Uses:**

- Treats diarrhea, dysentery and dyspepsia.
- Prepare jams, jellies and local brew.

**Photographed Location:** Lamai Goempa.



## **PRIMULACEAE (Primula Family)**

Herbaceous plants mainly found in north temperate regions. Flowers are borne on leafless stems, solitary and in umbels or in branched clusters. 5 Sepals fused into a calyx –tube with 5 pointed lobes or teeth, 5 petals fused into a short or long corolla –tube with usually 5 spreading or reflexed lobes, 5 stamens fused to the corolla tube. Ovary with 5 carpels fused into a single chamber with many ovules arising from the central column and single style. Fruit in 5 valved capsule. Leaves are commonly rosette, entire and often bearing simple or compound glandular hairs.





**Botanical name:** *Primula sikkimensis*  
Hook.f.

**Common name:** Shang-del-serpo  
(Dz), Primrose (Eng)

**Brief Description:** Leaves  
oblongate, obtuse apex, long  
attenuate base and sometime narrow  
base. Margin is finely dentate, and  
glabrous. Flowers are yellow and  
campanulate and rarely creamy or  
white.

**Flowering time:** May - August

**Elevation ranges:** 2745 - 4420 masl

**Part used:** Aerial parts.

**Uses:**

- Use for cardio-vascular disorder.

**Photographed Location:** Lamai  
Goempa.





**Botanical name:** *Primula dickieana* Watt.

**Common name:** Primrose

**Brief Description:** Leaves elliptic to obovate or oblanceolate with acute apex, wedge – shaped below, entire margins and toothed. Flowers are yellowish – white or purplish with yellow or orange eye.

**Flowering time:** May - August

**Elevation ranges:** 3200 – 4260 masl

**Part used:** Flowers

**Uses:**

- Control fevers.

**Photographed Location:** Gangkar Puensum.



## **GENTIANACEAE (Gentian Family)**

Herbaceous plants mainly found in northern and mountain regions. Flowers are usually in branched clusters or solitary. 4-5 calyx and corolla which are lobed and fused at its bases into a tube. Corolla is bell-shaped or saucer –shaped and stamens are attached to corolla –tube. Ovary is superior and 2 fused carpels with usually one chamber and many ovules borne on the walls of the ovary. Styles are simple with 2 lobed stigma. Fruits are usually a capsule. Leaves are usually opposite, and entire without stipules.





**Botanical name:** *Gentiana algida*  
Pallas.

**Common name:** Whitish gentian, Artic  
Gentian (Eng), Pang-Goen (Dz)

**Brief Description:** Leaves linear  
forming papery sheath with finely  
glandular-serrate margin. Flowers  
creamy white, striped and spotted dull  
green or slaty blue.

**Flowering time:** August - October

**Elevation ranges:** 4260 - 5030masl.

**Part used:** Aerial parts.

**Uses:**

- Use as febrifuge and sore throat.

**Photographed Location:** Chokhortoe.





**Botanical name:** *Gentiana robusta*  
Hook.f.

**Common name:** Dwarf Gentian,  
Gentianella, Amarella (Eng), Ki-Chu  
(Dz)

**Brief Description:** Leaves  
coriaceous, lanceolate, with attenuate  
to broad petiole base. Flowers white,  
greenish or yellow tinged brown.

**Flowering time:** June - September

**Elevation ranges:** 2740 - 4420masl

**Part used:** Flowers.

**Uses:**

- Cures wound, swelling and  
inflammation of stomach and liver.

**Photographed Location:** Ura.





**Botanical name:** *Gentiana urnula*  
Harry Smith.

**Common name:** Gentian (Eng),  
Gangchu (Dz)

**Brief Description:** Leaves rosette or  
mat-forming and obovate with upper  
parts loosely overlapping, broadly  
narrow, pale, smooth, and base  
forming tube. Flowers are papery,  
white or blue-violet with dark stripes  
and spots.

**Flowering time:** July - October

**Elevation ranges:** 4570 - 4880 masl

**Part used:** Whole plants.

**Uses:**

- Cures coughing, and also it  
is hydagogue, deobstruent,  
attenuant, and anti-diarrheal.

**Photographed Location:** Bribdungla.





**Botanical name:** *Halenia elliptica*  
D. Don.

**Common name:** Spurred Gentian  
(Eng), Chaktig (Dz).

**Brief Description:** Leaves elliptic and ovate, acute, and obtuse. Flowers are blue, mauve. White or purple, tube campanulate, spurred at the base of each lobe.

**Flowering time:** May - September

**Elevation ranges:** 1829 - 4877masl

**Part used:** Aerial plants (ITMS, 2009), and the entire plant.

**Uses:**

- Heals wound, relieve cold, cough and headaches caused by the disturbances in the blood and the bile.
- Lower fever due to sores, pestilential fever of bile and liver. Relieve severe headaches due to disturbed blood and bile, treats cough and cold.

**Photographed Location:** Lai Goempa.





**Botanical name:** *Megacodon stylophorus* (Clarke) H. Smith.

**Common name:** Yellow Gentian Lily (Eng)

**Brief Description:** Leaves broadly elliptic or ovate and acute. Lower leaves long – stalked with elliptic blade. Flowers large pale yellow bell – shaped netted with green within.

**Flowering time:** June - August

**Elevation ranges:** 3048 – 4267 masl

**Part used:** Roots

**Uses:**

- Applied on wounds and swelling.

**Photographed Location:** Bribdungla.





**Botanical name:** *Swertia multicaulis*  
D. Don.

**Common name:** Zang – tik Da – Wai  
Chag.tik (Dz)

**Brief Description:** Leaves all basal,  
rosulate, narrow oblong, linear or  
spathulate, acute or rounded, almost  
petiolate. Corolla lobes are slaty blue  
or deep purple.

**Flowering time:** July - October

**Elevation ranges:** 3660 – 5030 (-  
5180) masl

**Part used:** Leaves, stems, flowers  
and seeds.

**Uses:**

- Lowers infectious fever arising  
from sores and fever accompanied  
by wind.

**Photographed Location:** Bribdungla.



## **RUBIACEAE (Madder Family)**

This family is one of the largest families mainly of tropical trees, shrubs and some are temperate herbaceous plants. Flowers are usually regular and in branched clusters. 4-5 free sepals, tubular corolla with 4-5 spreading lobes, 4-5 stamens attached to corolla. Ovary is inferior with 2-celled and one to many ovules. Fruits are in capsule separating into one seeded nulets. Leaves are opposite or whorled, simple and entire with stipules.





**Botanical name:** *Gallium aparine*  
L.var.*echinospermum* (Wallroth).

**Common name:** Sticky jack, grip grass, sticky willow, sticky wily, clivers, goose grass, catch weed, robin-run-the edge, cleavers (Eng), Zangtse-karpo (Dz).

**Brief Description:** Leaves linear-oblongate, shortly cuspidate with attenuate and petiole-like base and glabrous nodes. Flowers cream, pale green or whitish.

**Flowering time:** July - September

**Elevation ranges:** 2600 - 4270 masl

**Part used:** Aerial parts.

**Uses:**

- Cures bile disorders and jaundice.  
Relieves migraine and sinusitis.

**Photographed Location:** Ura.



## **BORAGINACEAE (Borage Family)**

Herbaceous plants, some trees and shrubs mainly found in temperate and sub-tropical regions. These plants are usually hairy. Inflorescence consists of paired outward –coiled branches and flowers on the upper side. 5 sepals fused into a tube, 5 stamens attached to corolla –tube. Corolla –tube is saucer-shaped or bell-shaped with 5 lobes and often with scales in the mouth. Ovary is superior with 2 fused carpels and 2 or 4 chambers with 1 ovule in each chamber and style is usually simple. Fruits are of usually 4 nutlets or a drupe. Leaves are simple, entire and alternate without stipules.





**Botanical name:** *Onosma hookeri*  
Clarke.

**Common name:** Onosma (Eng),  
Demo (Dz)

**Brief Description:** Leaves numerous  
liner - oblong, subacute, base  
gradually attenuate with no distinct  
petiole. Upper surface greyish with  
dense, loosely appressed setiform  
hairs and lower surface with dense  
tuberculate, setiform hairs. Corolla  
reddish - blue or purple, campanulate.

**Flowering time:** May – September

**Elevation ranges:** 2834 - 5800 masl

**Part used:** Root barks

**Uses:**

- Allays asthma, hypertension and pneumonia.
- Cures lung diseases, purify blood and stop vomiting.
- Used to prepare red dye for the ritual cake prepared for religious ceremonies and to colour butter.

**Photographed Location:** Gangkar  
Puensum



## **LABIATACEA (Mint Family)**

Herbaceous plants or small shrubs and rarely trees mainly found in temperate regions. Flowers are mostly irregular with 2 lips. 5 fused sepals and sometimes 2 lipped. Corolla is funnel or bell-shaped conspicuously with 2 lipped. 2 or 4 sepals attached to the corolla-tube. Ovary is superior with 2 fused carpels and 4 distinct one-seeded units and a style arising from the base. Fruits are of 4 nutlets. Leaves are opposite placed at the right angles to each other.





**Botanical name:** *Mentha spicata* L.

**Common name:** Spear mint (Eng)

**Brief Description:** Leaves are oblong- elliptic to oblong-lanceolate and glabrous or sparsely hairy, widest near base, but less smooth or reticulate. Flowers are white or lilac.

**Flowering time:** July - September

**Elevation ranges:** 2285 - 3000 masl

**Part used:** Leaves, stems, flowers and seeds.

**Uses:**

- Restores digestive warmth.
- Relieve stomach pain due to over eating.
- Cures halitosis and protect from worms and bacteria.

**Photographed Location:** Ura.





**Botanical name:** *Eriophyton wallichii*  
Bentham.

**Common name:** Pangtshen  
Puroo(Dz), Mian Shen(Eng)

**Brief Description:** Leaves broadly ovate to sub orbicular, obtuse, cuneate base with serrate – dentate. Flower corolla red, pink or purple.

**Flowering time:** July – October

**Elevation ranges:** 4000 – 5460 masl

**Part used:** Whole plants.

**Uses:**

- Heals wound infection in the lung.
- Relieves fever.
- Regenerates nerves.
- Rupture blood arteries and veins.

**Photographed Location:** Bribdungla.





**Botanical name:** *Elsholtzia fruticosa* (D.Don).

**Common name:** Shubby Mint (Eng)

**Brief Description:** Leaves sessile, lanceolate to ovate – elliptic, acute or acuminate, base attenuate. Margin serrate or crenate – serrate with both surfaces pubescent and densely sessile. Corolla white or cream.

**Flowering time:** August - October

**Elevation ranges:** 2130 -3505 masl

**Part used:** Roots.

**Uses:**

- Relieve headache.

**Photographed Location:** Ura.





**Botanical name:** *Dracocephalum tanguiticum* Maxim.

**Common name:** Dragonhead or Dragon's head (Eng), Tee Yang (Dz)

**Brief Description:** Leaves sessile, pinnatifid, and narrowly linear with pubescent upper and lower parts. Flowers blue-violet or purple.

**Flowering time:** August

**Elevation ranges:** 3900 - 4200 masl

**Part used:** Aerial parts.

**Uses:**

- Treatment for bleeding and wounds.
- Allays fever arising from lungs, liver and stomach disorders.

**Photographed Location:** Ura.





**Botanical name:** *Origanum Vulgare* L.

**Common name:** Pot marjoram or Oregany (Eng)

**Brief Description:** Leaves ovate, acute, base rounded with entire margin and sparsely villous and punctate gland. Flowers corolla are pink.

**Flowering time:** June - September

**Elevation ranges:** 2130 - 3660 masl

**Part used:** Leaves.

**Uses:**

- Prevent, weaken or reduce the severity of a disease and common cold.

**Photographed Location:** Ura.





**Botanical name:** *Salvia nubicola*  
Sweet.

**Common name:** Himalayan Cloud  
Sage

**Brief Description:** Leaves triangular –  
ovate, acute to acuminate and hastate  
-sagittate base. Flowers pale yellow  
with light purplish molting on upper lips  
and streaks on lower.

**Flowering time:** August - October

**Elevation ranges:** 12440 – 2600 masl

**Part used:** Entire plants.

**Uses:**

- Heals toothache, oral diseases.
- Lowers fever of liver.

**Photographed Location:** Bribdungla.



## **SOLANACEAE (Potato Family)**

Herbaceous plants and it is large cosmopolitan family. Flowers are regular and rarely solitary and inflorescence is usually flat-topped and clusters. 5 sepals fused at the base and enlarge in fruit, 5 fused petals, and 5 stamens attached to corolla-tube. Corolla is flat with spreading lobes to bell-shaped or tubular. Fruit is either berry or a capsule. Leaves are variable, entire or compound and alternate without stipules.





**Botanical name:** *Scopolia luridus*  
(Sprengel) Dunal.

**Common name:** Deadly nightshade,  
Dwale, Black cherry (Eng), Thang –  
Throm (Dz)

**Brief Description:** Leaves ovate or  
elliptic, subacute or obtuse, pubescent  
and obtuse or cuneate base, glabrous  
above, densely creamy – tomentose  
beneath. Flowers are broadly  
campanulate, corolla yellowish – green  
to brownish – white with pinkish or  
purplish lobes.

**Flowering time:** June - July

**Elevation ranges:** 2,285 – 3,960 masl

**Part used:** Seeds.

**Uses:**

- Useful for sinusitis and colic.

**Photographed Location:** Chamkhar.



## **SCROPHULARIACEAE (Figwort Family)**

Herbaceous plants typically found in northern temperate regions. Flowers are irregular with inflorescence spike-like or a flat –topped cluster with bracts and bracteoles. 5 lobed calyx, 5 lobed corolla with 2 lipped, 4 stamens attached to corolla –tube. Ovary is superior with 2 carpels and with 2 or many seeded chambers. Fruits are usually dry capsule splitting in a numerous ways and persistent calyx. Leaves are opposite or alternate, simple and lobed or dissected.





**Botanical name:** *Neopicrorhiza scrophulariiflora* (Pennell) D. Y.Hong.

**Common name:** Figwort Picrorhiza (Eng), Puti sing (Dz)

**Brief Description:** Leaves rosette, obovate-oblong, oblanceolate or narrowly spatulate with serrated margins. Densely short-pilose with brownish - white thin hairs. Corolla pale blue to dark violet-purple.

**Flowering time:** May – July

**Elevation ranges:** 3500 - 4880 masl

**Part used:** Tuber or Rhizomes

**Uses:**

- Cure headaches, remedy of stomach illness and expel intestinal worms.
- Cure asthma, jaundice and coughs.
- Used as incense in Bhutan.
- Allays anti-coagulant, anti-diarrheal, haemantinic, depurative and febrifuge.

**Photographed Location:** Bribdungla.





**Botanical name:** *Verbascum thapsus* L.

**Common name:** Common mullein, big taper, flannel mullein, flannel plant, great mullein (Eng), Shingiserje or Kachum (Dz)

**Brief Description:** Leaves ovate to oblong crenate to subentire, tomentose. Cauline leaves oblanceolate to obovate, acute, and acuminate. Sweet-scented and clustered flowers with yellow corolla and whitish-yellow filament.

**Flowering time:** June - October

**Elevation ranges:** 1220 - 3048 masl

**Part used:** Seeds

**Uses:**

- Stupefying fish, for pulmonary disease, asthma, diarrhea, and bleeding of lungs and bowel.
- Relieve fever, excessive bleeding from wound, sprains, rashes, water retention and lower the fever due to poisoning.
- Cure kidney disorders and clear blockages of urinary tract.

**Photographed Location:** Ura.





**Botanical name:** *Pedicularis longiflora*  
Rudolph.

**Common name:** Lhuk –Ru- Serpo  
(Dz), Long Tube Lousewort (Eng)

**Brief Description:** Leaves lamina  
linear to oblong with alternate or upper  
sometimes sub opposite and clustered.  
Flower corolla bright golden yellow  
with chocolate or purple comma – like  
marks in throat and pale yellow tube.

**Flowering time:** June - October

**Elevation ranges:** 3050 - 5560 masl

**Part used:** Aerials parts.

**Uses:**

- Cures intestinal disorder.

**Photographed Location:** Bribdungla





**Botanical name:** *Pedicularis oederi* Vahl.

**Common name:** Lousewort (Eng), Dhukzer (Dz)

**Brief Description:** Leaves oblong or oblong – lanceolate in outline, radical or sub-basal with narrow crenate wing and pubescent above. Flowers are lemon-yellow with deeper yellow throat and deep yellow streak down middle of ventral side, tip of galea streak dull red or purple with crimson spot.

**Flowering time:** May - July

**Elevation ranges:** 4115 - 4870 masl

**Part used:** Stems, leaves, flowers and seeds.

**Uses:**

- Heals water resistant and breathlessness.
- Useful for malnutrition, infection of the bone and marrow.
- Heals sores and relieves pain due to serous fluids.

**Photographed Location:** Gangkar Puensum.





**Botanical name:** *Pedicularis siphonantha* D.Don.

**Common name:** Dre Lang (Dz), Tube Lousewort (Eng)

**Brief Description:** Leaves alternate, linear – oblong, mostly radical and narrowly winged rachis. Flower corolla bright rose – purple or pink with white throat and whitish base of galea.

**Flowering time:** May - September

**Elevation ranges:** 3200 - 4270 masl

**Part used:** Aerial plants.

**Uses:**

- Use as anti-dote, anti – diarrheal and febrifuge.

**Photographed Location:** Bribdungla.





**Botanical name:** *Pedicularis megalantha* D.Don.

**Common name:** Lhug Ru Marpo (Dz), Lousewort (Eng)

**Brief Description:** Leaves alternate, narrowly winged, glabrous, sparsely pilose sometimes, and linear – lanceolate or ovate – lanceolate. Flower corolla deep reddish – purple or cerise with white galea and throat. Erect galea in the center of the lower lip forming deep cup around it, twisted and forms complete rings.

**Flowering time:** June - September

**Elevation ranges:** 2440 - 4420 masl

**Part used:** Aerial plants.

**Uses:**

- Use as anti-dote
- Cures intestinal disorder.

**Photographed Location:** Gangkar Puensum.





**Botanical name:** *Pedicularis ingens* makin.

**Common name:** Lousewort (Eng),  
Lug-nag-karpo (Dz)

**Brief Description:** Leaves linear – oblong with erect, hollow and pubescent stem with oblong scales at base. Flower corolla yellow and slender tube.

**Flowering time:** June - September

**Elevation ranges:** 3000 - 4200 masl

**Part used:** Leaves, flowers, stems, and seeds.

**Uses:**

- Relieves swelling in the limbs.
- Relieves severe pain due to wind disorders.

**Photographed Location:** Gangkar Puensum.





**Botanical name:** *Euphrasia melanosticta* R.R. Mill.

**Common name:** Eyebright (Eng), Shimtheley (Dz)

**Brief Description:** Leaves broadly ovate-orbicular. Flowers white with upper lip purple streak. Lower lips with central yellow blotch and purple streaks on ventral side.

**Flowering time:** July - September

**Elevation ranges:** 2800 - 4270 masl

**Part used:** Whole plants.

**Uses:**

- Ant-septic, antimicrobial and conjunctivitis.

**Photographed Location:** Ura.



## **CAPRIFOLIACEAE (Honeysuckle Family)**

This family is small mainly of trees and shrubs and some climbers which has cosmopolitan distribution. Flowers are mostly flat-topped and in clusters or in pairs and with partly fused ovaries. Calyx fused to ovary. 4-5 small sepals Corolla with long or short tube with 5 spreading lobes and often 2 lipped. 5 fused stamens attached to the corolla-tube. Ovary is inferior with 3-5 fused carpels and single ovule in each chamber and style is simple. Leaves are opposite and simple.





**Botanical name:** *Triosteum himalayanum* Wall.

**Common name:** Horse-gentian or feverwort (Eng)

**Brief Description:** Leaves obovate to oblong. Flowers corolla greenish blotched red or purple inside with deflexed lower lip.

**Flowering time:** June

**Elevation ranges:** 3048 - 3962 masl

**Part used:** Dry and rosette fruits and Roots.

**Uses:**

- Substitute for coffee and also valued for its medicinal properties.
- Roots of the American species have been used as an emetic and mild cathartic.

**Photographed Location:** Ura.



## **SAMBUCACEAE (Elder Family)**

This family is distinguished from the Caprifoliaceae family by small botanical characters which include the rotate and broadly campanulate corolla and ovule in each cell of the ovary. Style is short with 2 lipped stigma.





**Botanical name:** *Sambucus adnata*  
DC.

**Common name:** Elderberry (Eng)

**Brief Description:** Leaves opposite or alternate, oblong with terminal leaflet broader than lateral ones, acuminate and serrate. Flowers cream or white to pink and red berries.

**Flowering time:** June - September

**Elevation ranges:** 305 – 3962 masl

**Part used:** Leaves, flowers, stems and seeds

**Uses:**

- Treats skin disease and wounds.

**Photographed Location:** Lamai  
Goempa



## **VALERIANACEAE (Valerian Family)**

Herbaceous perennials plants characterize found in north temperate regions. Flowers are in flat-topped and clusters. Calyx is situated on top of a rim of the ovary. Corolla is tubular with 5 lobes. 3-4 stamens attached to the corolla –tube. Ovary is inferior with 3 fused carpels and 1 chamber and 1 ovule. Fruit is dry and 1 seeded with persistent calyx. Leaves are opposite and pinnately lobed.





**Botanical name:** *Nardostachys jatamansi* (D. Don) DC.

**Common name:** Pang-Poe (Dz), Jatamansi, Muskroot, Jatamansi, Balchar (Eng)

**Brief Description:** Leaves basal linear to narrow spathulate, glabrous or pilose main veins and margins and entire or serrated. Flowers are pink to purple.

**Flowering time:** June - September

**Elevation ranges:** 3810 - 5155 masl

**Part used:** Whole plant.

**Uses:**

- Relieves chronic periodic fever, body swelling and spleen disorder.

**Photographed Location:** Bribdungla



## **DIPSACACEAE (Scabious Family)**

Herbaceous plants mainly found in temperate regions. Flowers are in clusters or in dense heads. Calyx is cup-shaped or divided into 5 to many bristles lobes. Corolla is tubular with 2-4 lobes and 2 lipped. 2-4 stamens attached to the corolla-tube. Ovary is inferior with 2 fused carpels and 2 celled with 1 ovule each. Fruit is enclosed in an epicalyx and often topped by the persistent calyx. Leaves are opposite or whorled.





**Botanical name:** *Pterocepalus hookeri* (Clarke) Diels.

**Common name:** Indian poke or American pokeweed (Eng), Pangtse-Dobo (Dz)

**Brief Description:** Leaves rosette at base, linear-oblong with lobed margins and rarely entire. Flowering stem leafless, densely hairy. Corolla tubular-obconical, white or cream with obtuse lobes and elliptic fruit.

**Flowering time:** August - October

**Elevation ranges:** 3048 - 4877 masl

**Part used:** Whole plants.

**Uses:**

- Allays cold, cough, and chronic inflammation.
- Treats lung diseases, effective against suppuration of lungs.
- Lowers lungs fever, heals infected sores and broken veins, and cures swelling in the glands.

**Photographed Location:** Bribdungla



## MORINACEAE (Morina Family)

Perennial herbs. Flowers gamopetalous, hermaphrodite, zygomorphic, in verticillate spikes or capitate heads. Involucel present, spiny at apex, persistent. Calyx superior, 2-lipped or oblique at apex. Corolla often curved, 5-lobed, obscurely 2-lipped. Stamens 4, or 2 with 2 staminodes, attached to corolla tube. Nectaries at base corolla. Ovary inferior, 1-locular. Ovule solitary, pendulous. Style slender, stigma disc-shaped. Fruit an achene,  $\pm$  obliquely truncate at apex, enclosed in involucel and crowned by calyx. Leaves are opposite or whorled, usually spiny; petioles connate forming sheaths around stem; stipules absent.





**Botanical name:** *Acanthocalyx nepalensis* (D.Don) Cannon.

**Common name:** Changtsher-Lhoma- Thrawa (Dz), Whorlflower (Eng)

**Brief Description:** Leaves linear – lanceolate to lanceolate with prominently toothed margin and spinose teeth in groups. Flowers white becoming pink and red.

**Flowering time:** August -September

**Elevation ranges:** 3200 - 3810 masl

**Part used:** Aerial parts.

**Uses:**

- Use for indigestion and phlegm disorders.

**Photographed Location:**

Wangthangla.



## **CAMPANULACEAE (Bellflowers Family)**

Herbaceous and perennials and annuals plants rarely of shrubs and mainly found in the north temperate regions. Flowers are showy and relatively large and often blue. Calyx tube is fused with the ovary and 5 free lobes. Corolla is bell-shaped with 5 lobes and 5 stamens. Ovary is mostly inferior with 2-5 fused carpels with chambers and each with numerous ovules. Fruits are capsule and open by pores or valves. Leaves are alternate, simple and without stipules.





**Botanical name:** *Cyananthus lobatus*  
Wallich ex Benth.

**Common name:** Trailing Bellflower  
(Eng)

**Brief Description:** Leaves obovate to wedge-shaped, deeply lobed and fleshy. Flowers are bright blue-purple.

**Flowering time:** July - September

**Elevation ranges:** 3300 - 4500 masl

**Part used:** Flowers and roots .

**Uses:**

- Has cooling potency,
- Useful for drying up serious fluids
- Treatment serious disorders and constipation
- Treatment for peptic ulcers.

**Photographed Location:** Gangkar  
Puensum.



**Botanical name:** *Codonopsis clematidea* (Schrenk) C.B. Clarke.

**Common name:** Clematis Bonnet Bellflower, Asian bellflower(Eng)

**Brief Description:** Leaves short – stalked, grey – hairy with branched stems. Flowers pale blue with brown ring within with small obovate to heart – shaped leaves.

**Flowering time:** July - September

**Elevation ranges:** 2400 – 4200 masl

**Part used:** Entire plants

**Uses:**

- Remedies fit and disorders caused by malignant.
- Cures disorders of ligaments, tendons and joints due to serious fluids, arthritis and leprosy.
- Eases swelling.

**Photographed Location:** Bribdungla.



## **COMPOSITAE (Daisy or Sunflower Family)**

This is one of the largest families distributed worldwide and found mainly in the semi-arid, temperate and montane regions. Herbaceous perennials, biennials or annuals and some are evergreen shrubs. This family is characterized by distinct inflorescence the flowers heads composed of numerous small florets borne on a receptacle and surrounded by involucre of bracts. Corolla of 5 fused petals, 5 fused stamen, 2 branched styles, 1 celled inferior ovary with 1 ovule. Fruit is dry with 1 seeded nutlet. Leaves are opposite, simple and alternate and toothed.





**Botanical name:** *Aster neoelegans*  
Hand-Mazz.

**Common name:** Aster (Eng), Yu-goshing-karpo (Dz)

**Brief Description:** Leaves oblanceolate or narrowly spatulate, acute to obtuse, attenuate to sessile base, entire, and with fine pubescent. Flowers corolla tube is ligule white, mauve or blue-violet with disc corolla yellow and glandular teeth.

**Flowering time:** May - September

**Elevation ranges:** 2450 - 3200 masl.

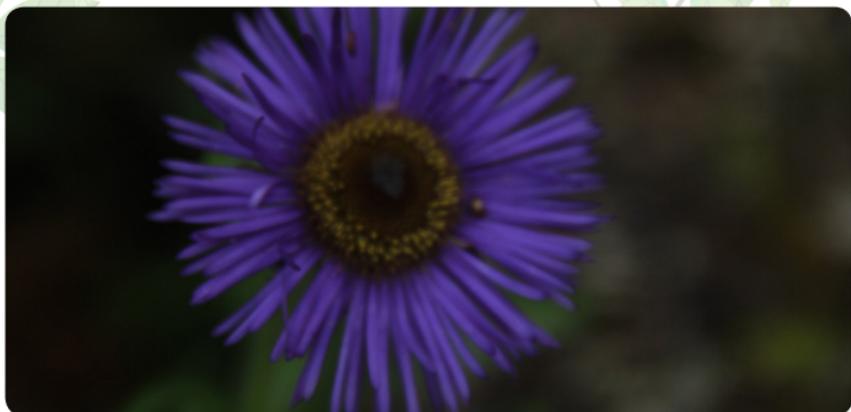
**Part used:** Aerial parts.

**Uses:**

- Heals wounds, body swelling, mumps and abates fever of poisoning.
- Tea made from roots is used to treat fevers.

**Photographed Location:** Ura





**Botanical name:** *Aster diplostephioides* (DC.)Clarke.

**Common name:** Aster (Eng), Aja (Dz)

**Brief Description:** Leaves basal lanceolate or oblanceolate, acute, attenuate at base, usually entire, sometimes denticulate, glandular or sparsely pubescent. Leaves oblong or linear. Flowers ray are numerous, ligules mauve or blue. Corolla disc blackish-purple fading to orange with glabrous teeth and whitish pubescent.

**Flowering time:** June - September

**Elevation ranges:** 3200 - 4730 masl.

**Part used:** Aerial parts.

**Uses:**

- Heals and joins fractured cranium, relieve body ache.
- Lowers pestilential fever, and nerves fever.
- Treat illness due to poisoning, gastritis, malignant spirit diseases and heals wound.

**Photographed Location:** Chokhortoe.





**Botanical name:** *Arctium lappa* L.

**Common name:** Greater burdock  
(Eng), Je-Zung (Dz)

**Brief Description:** Leaves ovate, obtuse or acute, with shallow cordate base and appressed white pubescent. Flowers are purple united in clusters. The fruits are achenes, long, compressed with short papuses.

**Flowering time:** July - August

**Elevation ranges:** 2440 - 2560 masl.

**Part used:** Seeds and roots.

**Uses:**

- Treat kidney and urinary bladder calculus and tumours of the uterus.
- Lowers unripe pestilential fever and remedy for nerve disorders.
- Useful for common cold and calculus formed in kidney and urinary bladder.
- Treats anti-tumour, anti-cancer and febrifuge.

**Photographed Location:** Ura.





**Botanical name:** *Artemisia dubia*  
Besser.

**Common name:** Mugwort or common  
wormwood (Eng), Khempa (Dz)

**Brief Description:** Leaves pinnatisect  
sparsely pubescent above, whitish  
araneous-pubescent beneath with  
lanceolate lateral segments. Alternate  
and narrowly oblong-elliptic in  
outline. Stems are erect with minutely  
appressed pubescent. Disc flowers  
are bisexual with tubular-campanulate  
white corolla.

**Flowering time:** August

**Elevation ranges:** 2130 - 2400 masl

**Part used:** Leaves.

**Uses:**

- Effective when the immune system  
has become weak.
- Artemisia tea is also effective for  
disease caused by parasite such  
as malaria.
- Effective when conventional  
antibiotics fail.
- Cure bone fracture, swelling,  
headache, cough and cold.

**Photographed Location:** Bribdungla.





**Botanical name:** *Aster himalaicus*  
Clarke.

**Common name:** Aster (Eng)

**Brief Description:** Leaves obovate-elliptic, obtuse or acute, entire or remotely denticulate, sparsely pubescent with scattered glands beneath. Erect stem arising laterally from base leaf rosette. Purplish-blue flowers are sparsely pubescent and glandular. Disc corolla are yellow or purplish and pubescent at base.



**Flowering time:** August – October

**Elevation ranges:** 3750 - 4900 masl

**Part used:** Roots.

**Uses:**

- Used to cure hemorrhage, malaria, and pulmonary ailments.
- Used for poisoning animal.

**Photographed Location:** Bribdungla.



**Botanical name:** *Gnaphalium hypoleucum* DC.

**Common name:** White Leaved Cudweed (Eng)

**Brief Description:** Leaves linear long – pointed stalkless with green and hairless above and woolly – haired beneath. Flowers heads yellow in dense rounded clusters massed into branched flat – topped inflorescence.

**Flowering time:** May – September

**Elevation ranges:** 1500 - 2400 masl

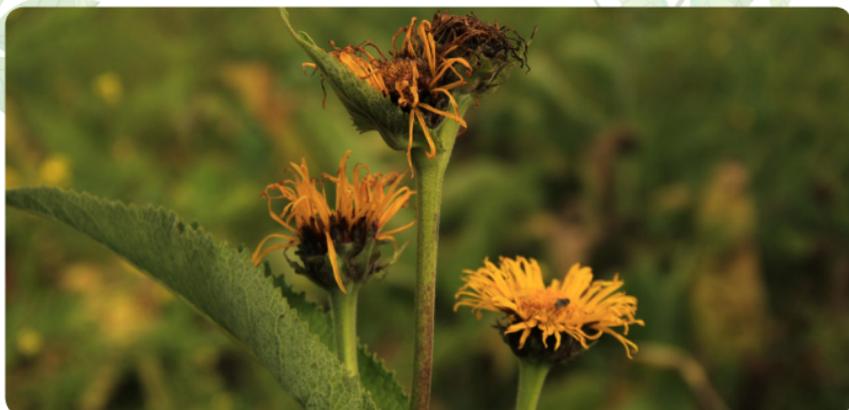
**Part used:** Flowers and leaves.

**Uses:**

- Used for gastroenteric and vomiting.
- Applied on cuts and wounds.
- Juice is believed to increase in lactation.
- Has positive effect on memory.

**Photographed Location:** Tangsibi.





**Botanical name:** *Inula racemosa*  
Hook.f.

**Common name:** Ma-nu (Dz), Inula  
(Eng)

**Brief Description:** A tall stout perennial with large short –stalked flower-heads borne in a spike –like clusters, or inflorescence branched with one or two flower-heads at the ends of the branches. Ray-florets slender; outer involucre bracts broad-triangular somewhat leafy, woolly-haired, the inner oblong blunts, the innermost linear. Lower leaves narrowed to a winged leaf-stalk, blade elliptic –lanceolate, the upper leaves lanceolate, half –clasping stem with large basal lobes, all leaves with rounded teeth and densely hairy beneath; stem rough and grooved.

**Flowering time:** July - September

**Elevation ranges:** 2000 - 3200 masl

**Part used:** Roots.

**Uses:**



- Use for Allays Inflammation of stomach, nausea and premature cough and cold.
- Remedies disorders arising due to blood and wind.
- Treat indigestion due to loss of digestive heat, disorder in cardiac sphincter, loss of appetite.
- Lowers fresh pestilential fever.

**Photographed Location:** Ura.



**Botanical name:** *Ligularia amplexicaulis* DC.

**Common name:** Stem clasping Ligularia, Ligularia (Eng)

**Brief Description:** Leaves broadly ovate, acute and shallow cordate or cuneate at base. Wing sometimes dentate-winged and upper leaves with large sheaths. Yellowish ray flowers.

**Flowering time:** July - September

**Elevation ranges:** 3350 - 4400 masl

**Part used:** Shoots, leaves and roots.

**Uses:**

- Useful for emetic of case of bile and phlegm diseases.
- Heals sores, dries serous fluid, and cures old epidemic diseases.
- Cures disorders arising from poisoning and wind disorders.

**Photographed Location:** Bribdungla.





**Botanical name:** *Leontopodium himalayanum* DC.

**Common name:** Himalayan Edelweiss (Eng), Tra - Wa(Dz)

**Brief Description:** Leaves liner – spatulate sometimes brown apiculate, acute or sub obtuse. Flower corolla densely white, yellowish – grey or tawny.

**Flowering time:** June – October

**Elevation ranges:** 3800 – 5500 masl

**Part used:** Leaves.

**Uses:**

- Use as ingredients for moxibustion.

**Photographed Location:** Gangkar Puensum.





**Botanical name:** *Saussurea obvallata* (DC.) Edgeworth.

**Common name:** Za-dok-Nakpo (Dz)

**Brief Description:** Leaves oblanceolate, acute, dentate and pubescent. Flowers are whitish or pale green.

**Flowering time:** July - September

**Elevation ranges:** 3660 - 4880 masl

**Part used:** Leaves, stem, seeds and flowers.

**Uses:**

- Relieves pain.
- Heals sores and wounds.
- Assuage epilepsy and paralysis.

**Photographed Location:** Bribdungla/  
Lamai Goempa.





**Botanical name:** *Saussurea gossipiphora* D.Don.

**Common name:** Jago - Sugpa (Dz)

**Brief Description:** Leaves cauline linear – oblanceolate, acuminate, denticulate to deeply pinnatifid, woolly on both surfaces. Stem is solitary, hollow and cup-shaped. Flowers are whitish woolly.

**Flowering time:** August - September

**Elevation ranges:** 3950 - 5000 masl

**Part used:** Aerial parts.

**Uses:**

- Use for blood and liver disorder.

**Photographed Location:** Bribdungla.





**Botanical name:** *Saussurea lappa*  
(Decne.) Sch. Bip.

**Common name:** Ru – Ta (Dz),  
Costus, Kut root (Eng)

**Brief Description:** Leaves are dense  
and curl spirally towards the flowering  
stem. Flowers are white or purple  
arranged in the form of small capitula.

**Flowering time:** August - September

**Elevation ranges:** 3000 - 3900 masl

**Part used:** Roots.

**Uses:**

- Relieves oesophagitis, numbness,  
skran-nad, dysphoria and  
dyspepsia.

**Photographed Location:** Ura.





**Botanical name:** *Tanacetum nubigenum* DC.

**Common name:** Khenkar (Dz)

**Brief Description:** Leaves pinnatisect, oblanceolate to linear, arranged subpalmately. Flowers yellow.

**Flowering time:** August - September

**Elevation ranges:** 3,650 – 4,720 masl

**Part used:** Aerial parts.

**Uses:**

- Relieve abscess, swelling of limbs, tumour, and kidney disorders.

**Photographed Location:** Ura.





**Botanical name:** *Taraxacum eriopodum* DC.; *T. officinalis* Wiggers

**Common name:** Khur-mung (Dz),

**Brief Description:** Leaves shallowly lobed with pair lateral lobes, triangular, obtuse, entire and sparsely dentate. Flowers yellowish and pappus dirty white.

**Flowering time:** July - October

**Elevation ranges:** 3,000 – 4,250 masl

**Part used:** Whole plants.

**Uses:**

- Effective for disorders that affect stomach.

**Photographed Location:** Ura.





**Botanical name:** *Anaphalis busua*  
(D.Don) DC.

**Brief Description:** Leaves linear – lanceolate, acuminate with decurrent base, green and sparsely tomentose above with moderately tomentose beneath. Flowers white above.

**Flowering time:** February - November

**Elevation ranges:** 300 - 4080 masl

**Part used:** Entire plants

**Uses:**

- Treats epidemics, illness caused by compound poison.
- Controls loss of blood.
- Relieves swelling.

**Photographed Location:** Ura.



## TRILLIACEAE (Trillium or Bunchflower Family)

Rhizomatous perennials. Stem unbranched bearing a whorl of 3-6 simple leaves. Flowers terminal, solitary, 3-10 merous, sepals in two whorls, all similar or outer sepaloid and inner either petaloid or filiform. Stamens equal in number to petals; anthers basifixed, dehiscent inwards or outwards; connective. Sometimes prolonged upwards. Ovary superior, of 3-6 (-8) locules or  $\pm$  unilocular, apex sometimes with thickened rim; style divided at apex into stigmatic lobes. Fruit a berry or capsule. Seeds sometimes with fleshy sarcotesta.





**Botanical name:** *Paris polyphylla*  
Smith var. *polyphylla*.

**Common name:** Love apple (Eng)

**Brief Description:** Leaves oblanceolate to narrowly elliptic, finely acuminate, and cuneate base. Flowers solitary, greenish and relatively inconspicuous with lanceolate long-pointed green leaf-like perianth segments and inner whorl of thread-like yellow or purple segments.

**Flowering time:** April – June

**Elevation ranges:** 1300 - 3960 masl

**Part used:** Rhizomes and aerial parts.

**Uses:**

- Cure fever, back pain, bleeding, bone fracture, fungal diseases, snake and insect bites, skin allergy, tumors and variety cancer.
- Treat febrifuge, liver and lung cancer and laryngeal carcinoma.
- Used as ornamental plant in woodland.

**Photographed Location:** Ura.



## CONVALLARIACEAE

Perennial, usually rhizomatous herbs. Leaves in basal rosettes sometimes distichous, or spiral, opposite or whorled along a stem, linear or differentiated into blade and petiole. Inflorescence a spike –like raceme on a leafless scape, or in a terminal panicle or raceme in axillary clusters on a leafy stem. Flowers bisexual, actinomorphic, hypogynous or epigynous; sepals usually 6, filaments free or fused below, commonly all similar and tubular below. Stamens usually 6, filaments free or fused below, longitudinally, inwards. Ovary usually 3-loculed, superior or partly inferior, style simple, stigma capitate or 3-lobed, ovule 2-several per locules, basal or axile. Fruit a berry or irregularly rupturing capsule; seeds sometimes with a showy sarcotesta.





**Botanical name:** *Polygonatum verticillatum* (L.) Allioni.

**Common name:** Ra- Nye (Dz), Whorl Solomon's seal (Eng)

**Brief Description:** Leaves lanceolate, subacute, narrowed to sessile base. Flowers are creamy white or pale green with darker lobes.

**Flowering time:** April - June

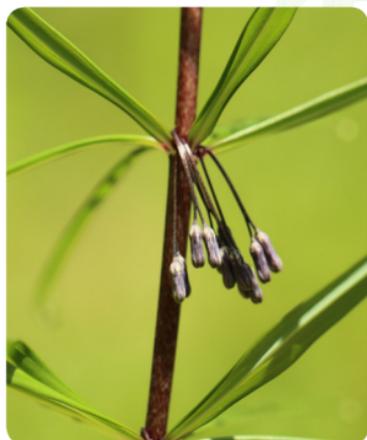
**Elevation ranges:** 1,670 – 4,200 masl

**Part used:** Rhizomes.

**Uses:**

- Relieves giddiness, blurred vision, boil. Dropsy, gout, and skin eruption.

**Photographed Location:** Bribdungla.



## **ALLIACEAE (Onion Family)**

Perennial, bulbous or rhizomatous herbs, often strongly smelling. Leaves linear to ovate, basal or sheathing lower part of scape. Inflorescence a terminal umbel or spike on a leafless scape, enclosed in bud by a spathe composed of 1 or more valves which may persist in flowers. Flowers radially symmetric, sepals 6, free or tubular at base. Stamens 6, inserted on tube or at base of sepals; filaments often flattened, anthers dehiscent longitudinally, inwards. Ovary superior, of 3 locules each with 2 or more ovules; style simple, arising from base, or apex of ovary; stigma simple or 3-lobed. Fruit a loculicidal capsule.





**Botanical name:** *Allium macranthum* Baker.

**Common name:** Blue globe onion, Blue flowered garlic (Eng), Rego (Dz)

**Brief Description:** Leaves linear and flat with laterally compressed and ridged. Flowers loose are with some pendulous. Purple flowers with green midrib.

**Flowering time:** July - September

**Elevation ranges:** 3670 - 4880 masl

**Part used:** Whole plants.

**Uses:**

- Assuage gastritis, tuberculosis and lung disorder.

**Photographed Location:** Bribdungla.





**Botanical name:** *Allium prattii* C.H. Wright.

**Common name:** Garlic (Eng)

**Brief Description:** Leaves narrowly to very narrowly elliptic, acute, and narrowed at base into short or long petiole with smooth stem. Flower pink wit umbel hemispheric.

**Flowering time:** June - August

**Elevation ranges:** 2240 - 4570 masl

**Part used:** Leaves.

**Uses:**

- Leaves used for seasoning curries in Sikkim.
- Used in traditional medicine.

**Photographed Location:** Bribdungla.



## LILIACEAE (Lily Family)

Herbaceous plants usually with swollen corms, rhizomes or bulbs. Flowers are in racemes, regular and with 6 petals in 2 whorls and free to the base or fused into a tube and 6 stamens. Ovary is superior with 3 chambers and a single style and 3 lobed and numerous ovules. Fruits are dry splitting capsule. Leaves are entire, narrow and parallel –veined.





**Botanical name:** *Lilium nanum*  
Klotzsch f.nanum.

**Common name:** Cima (Dz), Lily (Eng)

**Brief Description:** Leaves liner, blunt, sometimes wider lower than upper. Flowers single, dropping, campanulate, and deep reddish-purple to lilac.

**Flowering time:** June - August

**Elevation ranges:** 3350 - 4880 masl

**Part used:** Whole plants.

**Uses:**

- Heals head injuries.

**Photographed Location:** Tang.



## **ORCHIDACEAE (Orchid Family)**

Herbaceous plants which ranges from the high mountains to the tropical rain forest. This plant is either terrestrial growing in the soil, or epiphytic growing on trees or rocks. Both epiphytic and terrestrials orchids may have pseudobulbs. Flowers are with variable colour and unique in structure. 3 sepals, and 2-3 petals often coloured like the sepals. Stamens and ovary are united and form a column where anthers and stigma are borne. Ovary is inferior with 1 chamber. Fruits are in capsule with minute seeds. Leaves are alternate and often in 2 ranks, fleshy and sheathing at the base.





**Botanical name:** *Spiranthes hongkongensis* Hu et Barretto.

**Common name:** Ladies Tresses, Chinese Spiranthes (Eng)

**Brief Description:** Leaves narrow, oblong – elliptic to linear – lanceolate, acute and glossy dark green. Flowers long pinkish spirally arranged with a white lip.

**Flowering time:** April - August

**Elevation ranges:** 100 - 4500 masl

**Part used:** Whole plant plants

**Uses:**

- Treat cough, tuberculosis.

**Photographed Location:** Sengor.





**Botanical name:** *Gymnadenia orchidis* L.

**Common name:** Himalayan fragrant orchid (Eng)

**Brief Description:** Leaves are large, erect, oblong and pointed. Flowers are borne in dense cylindrical spike. Bracts are ovate - lanshaped and pointed. Flowers are white to rose – violet and pleasantly scented.

**Flowering time:** June - August

**Elevation ranges:** 2800 – 4400 masl

**Part used:** Roots

**Uses:**

- Rejuvenates bodily strength.
- Increase sperm count.
- Restores diminish kidney heat.
- Taken as food supplement to gain strength and enhance complexion.
- Said to be prolonged lifespan.

**Photographed Location:** Bribdungla.





**Botanical name:** *Dactylorhiza hatagirea* D. Don.

**Common name:** Marsh orchid (Eng)

**Brief Description:** Leaves oblong-lanceolate with spotted rosy-purple. Palmately lobed root-tubers, erect petals and sepals.

**Flowering time:** June - July

**Elevation ranges:** 2800 - 4000 masl.

**Part used:** Tuber or Rhizomes

**Uses:**

- Treat inflammation of the gum, teeth and bone fracture.
- Eaten raw to cure loss vigor and sexual appetite in Bhutan.
- Use for religious purposes.
- Strengthen body and increase longevity.

**Photographed Location:** Ura



## POLYPODIACEAE (Fern Family)

The genus *Lepisorus* is in the family polypodiaceae in the major group *Pteridophytes* (Ferns and fern allies). Pteridophytes are vascular plants and have leaves known as fronds, roots and sometimes true stems, and tree ferns have full trunks. Fronds in the largest species of ferns can reach some 6 meters in length. Many ferns are epiphytes and their water comes from the damp air or from rainfall running down branches and tree trunks. Pteridophytes do not have seeds or flowers either, instead they reproduce via spores.





**Botanical name:** *Lepisorus contortus*  
(Christ) Ching

**Common name:** Dak Poe (Dz)

**Brief Description:** Rhizome creeping, densely scaly throughout with dark brown scales. Margin toothed, oblong – subdeltoid narrowing towards attenuate apex. Lamina linear, attenuate towards both ends.

**Flowering time:** Not applicable

**Elevation ranges:** 3500 - 4600 masl

**Part used:** Leaves.

**Uses:**

- Heals bone fracture, burns, and wounds.
- Useful for kidney disorders.

**Photographed Location:** Chumey.



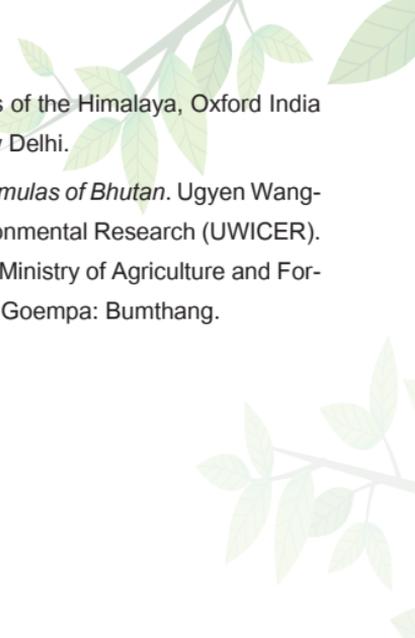
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