SOME MEDICINAL PLANTS OF GOPESHWAR – TUNGNATH REGION OF UTTAR PRADESH

KIMOTHI, G.P and SHAH, B.C.L.
Department of Pharmacognosy, Maharishi International, Research Institute, Maharishi Nagar, (Noida), Ghaziabad 201 304 India

Received: 8 February 1988 Accepted: 20 September 1988

ABSTRACT: This paper deals with medicinal plants of Gopeshwar-Tungnath region of Chamoli district of Uttar Pradesh based on the exploration. In all, 45 species are enumerated in this study.

Introduction

The use of medicinal plants for curing diseases in human society is almost as old as man himself. In India the earliest mentioned uses of medicinal plants are found in Rigveda, after Vedas, there is no information on the development of this science in India for a period of about 1000 years.

The study of Indian indigenous drugs was first begun in the early part of the century and it was then confined to the collection of available information with regard to various medicinal plants growing in different parts of the country. Dutt (1877), Watt (1889-1893), Dey (1896), Kirtikar and Basu (1935), Chopra & Chopra (1955), Bishwas (1956), Chopra et al (1956), Dustur (1970), Usher (1974) and Jain (1975), Nadkarni (1954) have described the medicinal plants.

A good deal of work has been done by the survey of medicinal plants of Garhwal by Uniyal (1964)-1977) Uniyal & Issar (1969). By the survey of literature it is learnt that there is lack of information about he medicinal plants found in Gopeshwar region. To supplement at this study makes a survey of that region and reports their local names and uses.

Location, Topography & Vegetation of the Area

Himalayas have been an interesting cynosure of global curiosity, observation, and exploration. In the silent sentinel of Northern India is the “Uttarakhan” region which means the kingdom of God.

The area Gopeshwar – Tungnath comes under Dist Chamoli, and is surrounded by huge mountains and deciduous temperate and alpine forest. The topography of the area is completely hilly with gradual slopes.
forming alpine meadows. Small streams are also quite common.

Gopeshwar region is located approximately in an altitude of 1450 mt. a.s.l., while Tungnath region is situated at an altitude of 3250 mt. a.s.l., and Chandra shila at 3850 mt a.s.l In general the area is monsoonic; the maximum temp. at Gopeshwar recorded as 35°C, and 12°-22°C at Tungnath. The minimum temperature in the region ranges between 3°C and 8°C. Snow fall occurs very commonly in winter and in Tungnath it takes a very long duration.

The vegetation is mostly found in farmlands, forest, meadows and alpine. The forest of Nuercus Incana, N. semicarpifolia, and tall trees of Pinus spp. C. deodara, Abies pindrow are very dense. The mosaic type vegetation are found in Tungnath and Chandrasila.

**Method of Study**

The region of Gopeshwar-Tungnath was surveyed during 1984-85 and medicinal plants were collected from the localities. Tungnath (3250 mt) Chandrasila (3850 mt), Mandalgoun (2400 mt) Chopta 2700 mt.), Dhotidhar (2600 mt). the medicinal plants material collected were dried in shade and identified. During the course of survey, first hand information on the medicinal uses of the plant was gathered from local people and Vaidyas.

**Result**

The medicinal plants have been arranged in an alphabetical order, locality, local name, used part of the plant and local medicinal uses (Folk-lore). The Specimen of the plants are preserved in the Dept. of Botany, Govt. P.G. College, Gopeshwar (Chamoli).
## ENUMERATION OF THE PLANTS

| Sl. No. | Botanical/Vernacular Name | Description | Distribution | Parts used | Local uses |
|---------|---------------------------|-------------|--------------|------------|------------|
| 1       | Abies pindrow, Spach (Taxaceae), Raga. | A large tree, Fl.A Apr.-May | Abundant sub-alpine zone on exposed hill scopes, 1500-2800 mt. | Leaves | The leaves in the form of decoction are used in chronic bronchitis and other pulmonary effections. |
| 2       | Acorus calamus, Linn (Araceae) Vacha. | A Perennial, rhizomatus aromatic herb | Abundently found at Sagar, Gangolgoan & Batarni-dhara, 1200-1500 mt | Rhizome 1 | Useful in disease of nervous system loss of memory. In case of irritation of the throat, the rhizome simple chewed, produce copious salivation and an agreeable sensation of warmth. |
| 3       | Achyranthus aspera, (L) (Amaranthaceae) Latzira. | Small herb, Leaves thick, flower green violet, Fl. July – August. | Commonly found at road aside of Pathali-Dhar. Gopeshwar. | Leaves and Root | According to local Vaidyas “Root taken on Sunday conjoined with pushy nakshtra is tied to waist this fastnes labour pains. |
| 4       | Adhatoda vasica, Nees (Acanthaceae) Vasinga. | An exact shrub, flower long, dotted, streaked with pink fl. Dec-April. | Commonly found at road side of Gopeshwar, Pathali-Dhar, Gwargoush 900-1200 mt. | Leaves | Juice of fresh leave missed with ginger juice used in cough and asthma. |
| 5       | Aegle mermelos, Corr, | A small tree | Commonly found | Fruit, Root, & | Fruit is useful in chronic dysentery |
| **6** | **Anaphalis contorta, Hook. (Asteraceae) Bubula** | Small aromatic herb, stem branched from the case, flower white-yellow, Fl Aug-Sept. | Commonly found at Gopeshwar, Dhotidhar, 1200-12500 mt. | Leaves | Juice or decoction of leaves is useful in cut injuries and infection |
|---|---|---|---|---|---|
| **7** | **Artimisia parviflora, Roxb (Asteraceae) Kunja** | Small aromatic shrub leaves wedge shaped tip toothed, floral leaves similarly Fl Aug-Oct. | Abundently found at Gopeshwar-Mandal-goun, Sagar, 1200-2400 mt. | Leaves | The leaves juice used in cut injuries Decoction of the leaves is used as vermifuge. |
| **8** | **Bauhinia Variegata, Linn (Caesalpiniaceae) Gwiral** | A medium size tree, flower small light paper and white colour, Fl Feb-April | Abundently found at Gopeshwar Chamoli road side, 900-1200 mt. | Bark & root flowers-bud | Buds are used as vegetable. Of buds is applied foe bleeding pil Bark decoction used in skin diseases. |
| **9** | **Berberis aristeta, DC. (Berberidaceae) Kirmora (Rasaut)** | A shrub, with pink or yellow flowers and deep red colour fruit Fl. March-June. | Commonly found in all hill region, 900-13000 t. | Root bark extract, stem. | A Crude extract known as Rasaut, prepared from the root & root used as a local application in effection of the eye lids and in opthalmia, Externally, the decoction of the root-bark is used to wash the ulcers, to improve their appearance. |
|   | Name | Description | Commonly Found | Whole Plant | Uses |
|---|------|-------------|----------------|-------------|------|
| 10 | Centella asiatica, Linn (Apiaceae) Brahmi | Small herb growing in wet places, flower an umbel white-purple | Commonly found in all in hill region, on the wet places, Fl. May-August. | Whole plant generally leaves. Up to 1500-2000 mt. | The leaves juice is used as a nervine tonic, and blood purifier. |
| 11 | Cinnomonum tamala Nees, Lauraceae)Tejpat. | Small evergreen tree with greenish flowers. Fl. March-Sept. | Commonly found in the valley of Mandel, forest of Dhotidhar, 1200-1800 mt | Bark & leaves. | Leaves are largely used as a Condiment Leaves when powdered are useful in fevers; and U.T.I. |
| 12 | Chenopodium album, Linn (Chenopodiaceae) Bathuwa. | Errect annual herb, flower greenish colour, Fl Feb-March | Commonly found in all crop filed up to 2400 mt. | Whole plant | Leaves are used as vegetable, Local Vaidyas use in hepatic disorder and in splenomagali. |
| 13 | Corydalis gavaniana, Wall, (Fumariaceae) | An aromatic rhinometric herb, flower bright yellow, Fl. June-July | Common between 2500-4000 mt.at Tugnath, Rudernath grass meadow | Whole plant | The paste of the root is applied for boils and wounds, the juice of the plant is employed in the treatment of eye disease. |
| 14 | Curcuma aromatic, Salish, (Zingiberaceae) Jangli huldi | Perennial herb, root stem rhizomatous, flower C Yellow – pink Fl May-June. | Commonly found at forest of Dhotidhar, chopta up to 2500-3000 mt. | Rhizome | Juice of the fresh rhizome is applied to injuries. |
| 15 | Cuscuta reflexa Roxb (Convalvulceae) Akashbel. | Annual parasitic, leaf-less herb. Stem succulent, flowers, | Commonly found in Valley of Mandel, Sagar | Plant juice | The juice of plant is useful in hookworm infestations, and in diphtheria. |
| No. | Name                                      | Description                                      | Commonly found in | Part Used | Use                  |
|-----|-------------------------------------------|--------------------------------------------------|-------------------|-----------|----------------------|
| 16  | Cynodon dactylon, person (Poaceae) Doob. | Perennial grass, fragrant, waxy white. Fl July-Oct | all region up to 5000 ft. | Whole plant | The juice is used as a soother |
| 17  | Cyperus rotanus, Linn (Cyperaceae) Motha. | Perennial herb, spikelets red brown, short spikes. | river bank of Alakananda (Chamoli) | Bulbous root (Tubers) | Tubers are used as infusion or soup for fever. The paste is also applied in Scorpion bite. |
| 18  | Datura stramonium (L) (Solanaceae) Dhatura | Annual herb, Fl white, corolla funnel shaped, Fl Fed-May | the paduligoun and nearly places, 1200-2400 mt | Whole plant | Poultice of leaves is applied for spasmodic pains. Fresh juice of leaves is used for gland-ulcer swellings. |
| 19  | Droceral Lunata, Buch-Ham (Droseraceae) Mukhjali | A small herb leaves half moon shaped, flower white, Fl Ayg-Sept. | the forest of chopta, Dhotidhar, 1200-12300mt. | leaves | This plant used in the preparation of swarna bhasma. It is also used Phthisis. |
| 20  | Emblica officinalis, Gaerth (Euphorbiaceae) Aoula. | A small tree, foliage light green, flowers. Yellow-green or white Fl. March-May. | the road side of the Pathalishar, up to 4500 ft. | Fruit, leaves, root & bark | The infusion of seed is a useful as eye wash in ophthalmic diseases. |
| 21  | Euphorbia hirta, Linn. (Euphorbiaceae) Dugdhi. | A small herb, flower greenish, Fl: March, to May. | wet places, upto 2000 mts. | Leaves & Juice. | Used as an ingredient of medicines for cough & asthma. Latex applied to warts. |
| 22  | Mornia longifolia, wall. | A Spinous, aromatic, | Commonly found | Root | Root powder is applied as a pout lice |
| No. | Species                                      | Characteristics                                      | Habitat/Location                        | Uses                                                                 |
|-----|---------------------------------------------|-----------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------|
| 23  | *Myrica nagi*, Thunb (Myricaceae) Kaphal    | A small tree with greenish flower. Fl. Oct-Dec.       | Commonly found at f of chopta, Dhotidhar, Gopeshwar, 1500-2100 mt. | Bark & fruits                                                                                       |
|     |                                             |                                                     |                                        | Fruits edible, Bark useful in asthma, also it is chewed to relieve tooth-ache.                  |
| 24  | *Nardostachys jatamansi*, DC (Valerianaceae) jatamashi | A perennial rhimatic herb, with pinkish flower Fl. July-Aug. | Commonly found in the alpine zone at Rudarnath, Tungnath 2700-3500 mt | Root                                                                 |
|     |                                             |                                                     |                                        | The decoction of the roots is used for mental diseases, insomnia and cardio-vascular diseases. |
| 25  | *Oxalis corniculata*, Linn (Oxalidaceae) Bhilmora | Procumbant herb, with yellow bright flower           | Commonly found in the wet & dry places, | Leaves                                                                 |
|     |                                             |                                                     |                                        | The leaves are used in removing corns, warts, and other excrescences on skin. Leaf paste with the paste of Piaz and Chiura is used in skin eruptions. |
| 26  | *Picrorhiza kurroa*, Royle ex-Benth, (Scrophulariaceae) Katki | A hairy prennical herb with blue flower. Fl. July-Sept. | Found abundantly on rocks and slopes a tunganth, Rudernath 3000-4000 mt. | Root                                                                 |
|     |                                             |                                                     |                                        | Specially useful in fever                                                                 |
| 27  | *Pieris avalifolia*, D Don (Eriasceae) Anyar | A small deciduous tree, with white                   | Commonly found in the Mandel, Young leaf and buds | The juice of tender leaves & buds mixed with mustard oil and used as |
| | | | | |
|---|---|---|---|
| **28** | **Pinus rozburchii, sarg** *(Pinaceae) Kuaen* | yellow flower. Fl March- April | Dhotidhar and near Gopeshwar forest. 1500-2500 mt | an external application in itching. |
| | A large tree, leaves needle shaped. Fl Feb-April. | Abundant in sub tropical zone on exposed hill slopes 900-1800 mt | Resin & Bark | Resin or oil is used for head-ache. Bark paste used to relieve burning sensation due to insect stings. |
| **29** | **Potentilla fulgens, wall** *(Rosaceae) Bajerdanti* | Perunial herb, flower. Orange-yellow, Fl Aug – Oct. | Commonly found in the forest of chopta, Dhotidhar, Mandel 2000-3--- mt. | Root & leaves. | The root and leaves are used as tooth brush, for cleaning and to relieve tooth-ache. |
| **30** | **Prinsepia utalis, Royle** *(Rosaceae) Bhenkel* | A glabrous sping shrub, flower white F! April-May | Commonly found in the temperate Himalaya up to 2500 mt. | Root & Seed oil | Seed oil is used in skin diseases. Paste of the root is healer for cuts for cuts & wounds. Fresh root juice is very useful for fever. |
| **31** | **Quercus incane,** *(Fagaceae) Banj* | A large tree, forming patches in sup alpine zone, flower-white | Commonly found in the sub alpine an temperate zone up to 2500-3000 mt | Seeds & bark | The seed paste used in insect bits & decoction of the bark is used in scabies and other skin diseases. |
| **32** | **Rheum emodi, wall** *(Polygonaceae) Dolu,* | A perennial rhizomatic herb, | Commonly found on stony slope at | Rhizome | Lotion made of the root, is used in all types of skin disease, sore, eyes & |

Page 283-292
| No. | Name                                      | Description                                                                 | Uses                                                                                      |
|-----|-------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 33  | Rhododendron anthopoyon (Eriacceae)Kothya | A aromatic shrub with purple white flower. FI June-July                      | Leaves & flowers<br>Commonly found in the meadow slope at tunghath, Rudernath 3000-4500 mt<br>Fragrance from the flower is very attractive, but causes giddiness. |
| 34  | Rumex hastatus D.Don (polygonaccae) Chilmora | It is an erect herb with pinkish flower. FI June-July                        | Leaves, root & flower<br>Locally, paste of the flower is used a made up Chatani, the plant is used as a cooling agent and the leaves are applied to burns & cuts. |
| 35  | Sexifrega Ciliata, Royle, (Saxifragaceae) Sitphori | It is a rhizomatic herb, with pinkish white flower, Sporadically grones on rocky slopes flower Feb-April. | Rhizome<br>Locally, leaves are given to cattles as a galactagogue, root decoction is used in kidneystones. |
| 36  | Silence conoidea, Linn (Caryophyllaceae) Pyankuri (Tomarya) | An annual herb, flower Pinkish, FI Feb-March.                              | Whole plant<br>The fresh juice of whole plant is used in eye diseases. The paste of used in treatment of piles. |
| 37  | Smilax aspera, Linn (Liliaceae) Kukurdarya | A prickly Climber.                                                          | Root<br>The bark is used in treating skin eruptions and other choraic disases.          |
| No. | Scientific Name | Common Name | Description | Habitat | Part Used | Uses |
|-----|----------------|-------------|-------------|---------|----------|------|
| 38  | *Solanum nigrum* Linn (solanaceae) | Makoi | An erect branching shrub with white flower | Commonly found at gongalgoun, Mandal, Gopeshwar, up to 1200-2000 mt | Whole plant | Paulltice is used locally inflammations and to cure cough. |
| 39  | *Swertia chirata*, Buch-Ham (Gentianaceae) | Chiratu | A tall perennial shrub with purplish blue flower | It is mostly found in tungnath, Rudernath, up to 1000-12000 ft. | Whole plant | The whole plant is used as febrifuge and blood purifier. |
| 40  | *Trichosanthes palmate* Roxb, (Cucurbitaceae) | Ilarc | A large perennial climber, with white flower, fruit smooth & red colour. | Commonly found in the Valley of Atri-Ansuya Ashram, Mandel-goun up to 6000-8500 ft | Leaves & root | Abdominal pains is used to relieve leaves juice, the sees are use as a shortifecient. Root is an ingredient of a paste used on carbuncles. |
| 41  | *Urtica dioica*, Linn (Urticaceae) | Kandali | A herb with stinging hairs. | Commonly found at the all valley of hill region, ascending 7000-8000ft. | Leaves | It is also used for Jaundice and constipation. |
| 42  | *Valeriana hardwicki* wall valerianaceae (Samaiya) | | An erect aromatic herb with small white flower | Growing abundantly in moist, shady places, through out the hill region up to 3000 mt | Root | The paste is used for bright and scaly skin lesions. |
| 43  | *Viola pilosa*, wall | | An annual herb with | Commonly found | Whole plant | The decoction of the flowers is for |
|   |   |   |   |
|---|---|---|---|
| **(Violaceae) Vanfsa** | white blue flower Fl. April-May. | in the all hill region up to 3000 mt. | cough and cold. |
| 44 | **Woodfordia fruiticosa, Linn (Lythraceae) Dhoulu** | A large much branched shrub with brilliant scarlet flower. Fl March - June | Mostly found in the rocky place of hill region up to 1800 mt | flower | Flowers are used for making a drink and dare also used in dysentery. |
| 45 | **Zanthoxylum alatum, Roxb (Rutaceae) Timru** | A spiny shrub or small tree | Commonly found at Gopeshwar, sayar, up to 1200 mt. | Bark seed | The decoction of the plant gives relief in rheumatic pain. Powdered fruits relieve tooth-ache. |
REFERENCES

Anonymous. Wealth of India, Vol 1 to XI, C.S.I.R., New Delhi (1980).

Biswas, K. Common Medicinal plants of Darjeeling & the Sikkim Himalayas supdt Govt. printing press, Calcutta. (1956).

Chopra, R.N & chopra, I.C. A review of work on Indian Medicinal plants, I.C.M.R., New Delhi (1955).

Chopra, R.N et.al Glossary of Indian Medicinal plants, I.C.M.R., New Delhi (1956).

Chopra, R.N et.al chopra’s Indigenous Drugs of India, U.N Dhar & Sons Ltd, Calcutta (1958).

Collett, H. Flora Similensis, Thacker Spink & Co. London. (1921).

Dastur, J.F Medicinal plants of India & Pakistan, D.B. Taraporevala Sons & Co., Pvt., Ltd., Bombay (1970).

Dey, K.L The Indigenous Drugs of India, Thakker, spink & Co., Calcutta (1956).

Dutt, U.C. The Meteria-Medica of the Hindus, Calcutta (1877).

Hooker, J.D Flora of British India, Vol.I to VII, L. Reeves & Co. London (1875-97).

Jain, S.K. Medicinal plants, National Book trust, India (1975).

Joshi, D.M. Spring Flora of Rudranath Bugyal (Distt. Chamoli) B.MEBR 3, I pp 27-42, C.C.R.A.S., New Delhi (1977).

Kirthikar, K.R. & Basu, B.D. Indian Medicinal Plants Vol. I to VI, Allahabad (1935).

Nadkarni, A.K Indian Materia-Medica Bombay (1954).

Uniyal, M.R. Medicinal Plants collecte form Bilangna Valley during 1963-1964, Sachitra Ayurveda, 17(5), 385-368 (1964).

Uniyal, M.R. & Issar, R.K Commercially & traditionally important medicinal plants in mandakini vallely Jour. Res Ind Med 4,1, (1969).

Uniyal, M.R. Uttarakhand Vanoushidhi-Dharshika pub No. 28 C.C.R.I.M.H. New Delhi (1977).

Usher, G. A dictionary of plants used by man, constable, Calcutta (1974).

Watt, G. A dictionary of Economic Products of India, Vol I to VI, Calcutta (1889-93).

Local people & Vaidy's.
