

ETHNOBOTANY OF THE HILL TRIBES OF UTTARKASHI—II. WILD EDIBLES

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ABSTRACT

The floristic studies of the Uttarkashi District carried out during the year 1983-1986, reveal that the Jaads and the Khos are the major tribes of district Uttarkashi, which still use plants extensively as edibles and for the preparation of beverages. This paper describes the traditional culture of these tribes and their use of wild edibles. 124 different plant species and their edible uses are appended in a list.

INTRODUCTION

Plants have played a vital role in human civilization since times immemorial by providing the most essential requirements of the human beings for their sustenance and well being since the prehistoric days. This relationship has become more and more close with the advancement of civilization. The Indian sub-continent represents one of the most important region all the world over from economic and ethnobotanical point of view (Jain, 1981).

Ethnobotany, the term coined by Harshburger (1896), a branch of Botany which is applied in context with economic aspects of plant species by aboriginal or the primitive society. Schultes (1960, 1962) has expressed the importance of ethnobotany in finding out several new aspects of plant utilization. Ethnobotany is penetrating into several domains of natural sciences such as Archaeology, History, Anthropology and Pharmacology.

Throughout the world, enormous studies have been carried out on various aspects of ethnobotany by several workers such as Harshburger (1896), Woodward (1956), Wren (1956), Schultes (1956), Vidal (1960, 1961), Mangelesdorf (1961), Martin (1971), Wildon

& Mariah (1979), Zotla (1980), Morgon (1981), Anderson (1986) and others.

Nestling in the foot hills of the Himalayas is the fabled Garhwal, a land of rishies, sages and ashrams, which is also the traveler's delight and a naturalist's paradise. Although there are some floristic reports from the Garhwal Himalayas (Gupta, 1956; Ghildyal, 1957; Rau, 1963; 1964; Naithani, 1967; Dey *et al.* 1968; Som Deva 1978a, 1978b, 1980; Semwal & Gaur, 1981; Bhattacharyya & Malhotra, 1982; Hajra & Jain, 1983; Negi *et al.* 1985) but studies on ethnobotanical aspects are still scarce.

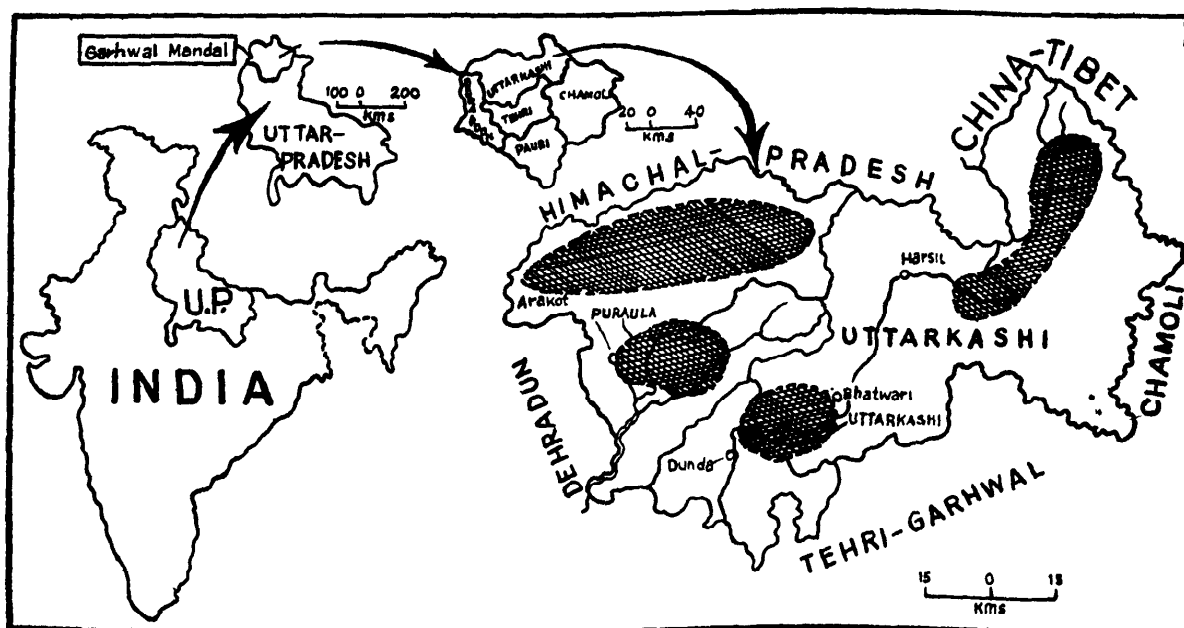
As regards the present work, during the years 1983-1986, the floristic studies have been carried out in the Uttarkashi District. Uttarkashi one of the five districts of Garhwal Himalayas, is situated in 30° to 32° North latitude and 78° to 79° East longitude, having an area of 8,016 sq. km (26.6% of the Garhwal Himalayas). It is one of the most backward regions of all the hilly districts of U.P. This is obviously due to the control of native rulers for nearly 1300 years, merely as a privilege of the racial inheritance which continued till 1949, when the latter was merged in the Union of India and continued to be so till 1960. Again on February 24, 1960 it was further separated from Tehri and carved out as an independent district with

Uttarkashi as its headquarters. The district comprises four tehsils viz. Bhatwari, Dunda, Barkot and Purola. The lururiant Bhagirathi, Yamuna and Har-ki-dun valleys as well as the entire route from Gangotri to Vashukital and from Barnali to Chiangsheel of this district have a backdrop of snow mountains/peaks and forests of *Abies pindrow*, *A. spectabilis*, *Aesculus indica*, *Betula alnoides*, *B. utilis*, *Cedrus deodara*, *Cupressus torulosa*, *Morus serrata*, *Pinus excelsa*, *P. roxburghii*, *Quercus leucotricophora*, *Q. himalayense*, *Q. semicarpifolia*, *Rhododendron arboreum*, *R. campanulatum* etc., besides the alpine vegetation. The forests are also rich in wild life which is evident from the fact that the Govind Pashu Vihar, a natural sanctuary in the Garhwal Himalayas, has been founded here. The present studies have revealed that the district is rich in folklore vis-a-vis the plant wealth. Much less is known about plants in folk-life from this region and whenever such information is available, concerted efforts are called for to verify the claims. Furthermore, although this hilly district has

several road links, there are some isolated patches in the interior valleys which can not be approached easily except by trekking and the aboriginals are largely dependent on natural wild resources of the forests around them for their day-to-day requirements. The use of plants is mostly popular in the areas of Jaad and Khos tribes, where the developmental activities are isolated from so-called advanced societies and lead a hard but contented life. The present paper on the wild edibles and plants used in the preparation of beverages by these tribes, forms our second communication in the series; the first one on medicinal plants has already appeared elsewhere.

THE USE OF WILD EDIBLE PLANTS BY THE TRIBES

Most of the materials being used as food by the tribal people of this district originate from plants. Some tubers and rhizomes are either eaten raw or roasted and cooled after a thorough wash to get rid of the bitterness and pungency. In some instances, these may even be powdered to make flour



Location of Uttarkashi in India and Uttar Pradesh. The stippled areas in the outline of the Uttarkashi district show the regions covered in the present study.

for preparation of various types of puddings. Furthermore, the leaves and shoots of the certain wild plant species comprising herbs, shrubs and trees are gathered and eaten either raw or cooked as vegetables. Apart from their use as vegetables, the tender leaves being acidic, are employed as sauce as well as to flavour the dishes. The flowers of certain wild plant species are either eaten raw or cooked as vegetable and pickled or in the preparation of cool-drinks. The unripe or semiripe fruits of some plant species are taken raw, used as vegetable or in some cases made into pickles. The ripe fruits of certain wild species are gathered and eaten as raw or cooked, widely because of their sweet pulp and/or their succulent aril. Even insipid acidic fruits are eaten. These are also used as seasoning materials or to prepare sweet drinks. The seeds of some wild plant species are made into coarse flour (sattu), substitutes of coffee or tea or cooked as pulse and mainly eaten during the time of scarcity of staple diet. In addition to the common cultivated species like *Allium cepa*, *A. sativum*, *Brassica juncea*, *Capsicum frutescens*, *Coriandrum sativum*, *Curcuma longa*, *Zingiber officinalis*, the tribals add paste of some wild plant species in their food to improve flavour and piguency. Various roots, leaves, flowers and fruits, which serve as good stimulant and laxative, are made into non-alcoholic drinks either by mixing with water, milk, as such or even soaking the plant part over-night in the water to use as a substitute for tea.

Crude alcoholic beverage, locally known as Chhang in Jaad tribes, is prepared from grain of *Eleusine coracana* (Mandwa), *Hordeum vulgare* (Jau) etc. The preparation of alcoholic beverages is a long process and consists of several steps viz. preparation of Balma, preparation of Jaan and extraction of Agyar. In the preparation of Balma—grain of barley and phaphar are put into process and are covered with the leaves of

Cannabis sativa and *Cupressus torulosa* for 6-9 days. Jaan, a crude solution, used for the extraction of Agyar is made either from rice or from millets. For the extraction of Agyar from Balma and Jaan, a number of plants are added to the entire system such as *Berberis asiatica* and *Rubus niveus*. The process of fermentation leaves behind some unpleasant smell in the liquid. As such the tribal use some plants for good aroma and coloration. The species for adding the flavour are : *Cupressus torulosa*, *Micromeria biflora*, *Valeriana hardwickii*, *Viola biflora* and *Taxus baccata*. The plants added to impart the colour are *Berberis asiatica*, *Bergenia ciliata* and *Myrica esculenta*.

The 'Sur' or country wine is a very important drink in day-to-day life of the Khos. It is served as drinks to the guest and relatives during kingship calls, fairs, festivals and other special occasions. There are primarily two kinds of 'Sur' prevalent here, viz. *ghengti* and *pakoi*. *Ghengti* is the distilled sur and prepared throughout the year. It is specially effective against tiredness and is generally consumed in little quantity and before meal as a rule. *Ghengti* could be made from sugars, honey, Mandwa (*Eleusine coracana*). On the other hand, *pakoi* is a red coloured fermented liquor, especially prepared for the winter days. Although it is regarded as having cooling effect but used in winter to remove the heat of meat from the body, as meat is regularly consumed during Magh (January-February) months. *Pakoi* is taken after meal and has somnific effects. The main catalyst of sur is made up of nearly forty different plant species (given in Appendix). These species are collected in the monsoon months, when they are found in plenty.

MATERIALS AND METHODS

The present study involved extensive literature search, examination of the herbarium material at the Forest Research Institute,

Dehradun. Herbarium (DD); The National Botanical Research Institute, Lucknow (NBG); Botanical Survey of India, Northern Circle, Dehradun (BSD) and the Garhwal University Herbarium Srinagar (GUH), and interviews through interpreters with local tribals during field studies. In fact this formed a part of the wider floristic studies that have been carried out during the year 1983-1986 in the several localities of district Uttarakashi. For this purpose, collections made of the various plant species were identified at DD, BSD and GUH, and are being deposited at CAL (Central National Herbarium, Calcutta), BSD (Botanical Survey of India, Northern Circle, Dehradun), and GUH (Garhwal University Herbarium, Srinagar).

APPENDIX

The following are amongst the most common wild edible plants of Jaad Bhotiya and Khos. The information for each species deals with the botanical name and family, its common English name (if any), the vernacular name (in bold face), initials of the collectors (AKB), the collection number, the herbarium where it is deposited and the use of the species by the tribals.

Adhatoda zeylanica Medic. (Acanthaceae) Malabarnut; **Barha**. AKB 146. GUH.

Tender leaves and flowers are boiled for more than one and half an hour. The boiled leaves are kept under running water for over night to remove the bitterness and then used as vegetable. The nectar of the flowers is also sucked by the children.

Aesculus indica Colebr. (Hippocastanaceae) Indian horse chest nut. **Pangar**. AKB 1021. GUH.

The seeds are roasted and powdered into coarse flour which is used during the time of scarcity of staple diet.

Allium humile Kunth (Alliaceae) **Laadu**. AKB 71. GUH.

The paste or the dried powdered of the herb is added to foods for improving flavour and piguency.

A. stracheyi Baker (Alliaceae) **Jambo**. AKB 190. GUH.

The dried powder of the herb is used as spices and condiment. It is also sold by the Jaads in the markets.

A. wallichii Kunth (Alliaceae) **Gobhkha**. AKB 270. GUH.

The young leaves are used as vegetable and the dried leaves are used as spices.

Alpinia galanga (L.) Sw. (Zingiberaceae) Greater Galangal; **Kalijau**. AKB 224. GUH.

Inflorescence and rhizomes are cooked as vegetable. Rhizomes are dried to be used as spices.

Alternanthera sessilis (L.) DC. (Amaranthaceae) **Gomphan** AKB 430. GUH.

The young shoots and fleshy leaves are used as a vegetable.

Andrachne cordifolia (Decne) Muell. (Euphorbiaceae) **Bhoth**. AKB 374. GUH.

Powder of the dried leaves and stem is used as catalyst in preparation of sur.

Angelica glauca Edgew. (Apiaceae) **Chora**. AKB 343. GUH.

The dried leaves and stems are sold in the market by Jaad as spice.

Asparagus curillus Buch.-Ham. (Asparagaceae) Musli; **Jhiri**. AKB 268. GUH.

Young fleshy shoots are roasted and used as vegetable. This preparation is supposed to be highly potent. The tubers are also used as vegetable.

A. flicinum Buch.-Ham. (Asparagaceae) Musli; **Kaunia**. AKB 400. GUH.

Fasciculated roots are pickled and the shoots are used as vegetable.

Bergenia ciliata (Haw.) Sternb. (Saxifragaceae) **Dhogguluta**, **Patharchatta**. AKB 348. GUH.

The young shoots are eaten as green vegetable.

B. stracheyi (Hook. f. & Thoms.) Engl. (Saxifragaceae) **Shilphodi**. AKB 103. GUH.

The dried leaves are used as substitute of the tea.

Bosea amherstiana (Mog.) Hook. f. (Amaranthaceae) **Bhangoi**. AKB 521. GUH.

The young shoots are cooked as vegetable.

Bupleurum falcatum L. var. **marginata** (Wall. ex DC.) Clarke. (Apiaceae) **Tirmiri**. AKB 245. GUH.

The tubers are used as a vegetable and the stem and leaves are used in the preparation of sur.

Buxus wallichiana Baill. (Buxaceae) Box tree. **Papri**. AKB 250. GUH.

The leaves are made into non-alcoholic drinks to be used as a substitute for tea.

Cannabis sativa L. (Cannabinaceae) Bhang. **Bhanglu**. AKB 75. GUH.

The roasted seeds are eaten and the seed oil is edible.

Capsella bursa-pastoris Medik. (Brassicaceae) **Botlya**. AKB 240. GUH.

The leaves are used as a green vegetable frequently.

Carissa opaca Stapf (Apocynaceae) Natal plum; **Karaunda**. AKB 709. GUH.

The sour fruits are eaten raw or pickled.

Cassia obtusifolia L. (Caesalpiniaceae) **Chakunda**. AKB 528. GUH.

The leaves are edible as vegetable.

C. occidentalis L. (Caesalpiniaceae) **Chakunda**. AKB 410. GUH.

The powder of the roasted seeds is used in the preparation of the non-alcoholic beverages.

Celtis australis L. (Ulmaceae) **Kharik**. AKB 720. GUH.

The ripe fruits are eaten.

Cerastium glomeratum Thuill. (Caryophyllaceae) **Chandai**. AKB 532. GUH.

The leaves and stem are cooked as vegetable.

Commelina benghalensis L. (Commelinaceae) **Chira**. AKB 243. GUH.

The tender shoots are edible as vegetable, leaves are made into delicate preparations when fried in oil.

Cordia vestita Hook. f. (Ehretiaceae) **Bairola**. AKB 143. GUH.

The fruits are edible.

Corylus colurna L. (Corylaceae) Turkish Hazelnut; **Sharon**, **Bhotiabadam**. AKB 810. GUH.

Nuts (seeds) are edible and the seed oil is used for cooking.

Cotoneaster microphylla Wall. ex Lindl. (Rosaceae) Ruieesh; **Choturians**. AKB 69. GUH.

The fruits are frequently eaten since they are astringent.

Crataegus oxycantha L. (Rosaceae) English Hawthorn; **Chingaru**. AKB 228. GUH.

The fruits are edible.

Cymbopogon martinii (Roxb.) Wats. (Poaceae) Rosha grass; **Pirpiso**. AKB 248. GUH.

The leaves and roots are used in the preparation of alcoholic beverages. (Sur).

Datura stramonium L. (Solanaceae) **Datura**; **Dhanturu**. AKB 372. GUH.

The dried leaves and flowering tops are used as catalyst in the preparation of Sur.

Dioscorea belophylla (Prain) Voigt. ex Haines (Dioscoreaceae) **Turur**. AKB 323. GUH.

The tubers, lie 3-6 feet deep in soil, are frequently and used as substitute for potatoes.

D. bulbifera L. (Dioscoreaceae) Potato yam; **Garjira Genth**. AKB 440 GUH.

The warted bulbils and brown tubers are edible after boiling.

D. melonophyma Prain & Burkill (Dioscoreaceae) **Magiya**. AKB 406. GUH.

The tubers are used as substitute for potato after boiling.

D. pentaphylla L. (Dioscoreaceae) **Genth**. AKB 650. GUH.

The tubers are edible.

Diplazium polypodies Blume (Athyriaceae) **Lingura**. AKB 680. GUH.

A common fern, the young shoots of which are edible as vegetable.

Diploknema butyracea (Roxb.) H. J. Lam. (Sapotaceae) Indian butter-tree; AKB 556. GUH.

The ripe fruits are edible and seed-oil is used for cooking.

Dipsacus mitis D. Don (Dipsacaceae) **Kandar.** AKB 515. GUH.

The leaves are cooked as vegetable.

Dryopteris marginata (Wall.) C. Chr. (Aspidiaceae) **Khuthara.** AKB 807. GUH.

Young rhizomes and leaf stalk are made into vegetable which is delicious and a good tonic.

Duchesnea indica (Andr.) Focke (Rosaceae) Yellow Strawberry; **Bhuir Kaiphal.** AKB 840. GUH.

The fruits are edible and are used in preparation of cool-drinks.

Echinops niveus Wall. (Asteraceae) **Kandaru.** AKB 48. GUH.

The pith of stem is edible and is supposed to have cooling effect.

Ehretia acuminata R. Br. var. **serrata** (Roxb.) Johnston (Ehretiaceae) Heliptrope tree; **Punain.** AKB 865. GUH.

The fruits are edible and also pickled.

Elaeagnus angustifolia L. (Elaeagnaceae) Oleaster. **Ginroi.** AKB 790. GUH.

The fruits are edible.

Epilobium roseum (Schreb.) Pers. var. **indicum** Clarke (Onagraceae) **Atrasu.** AKB 148. GUH.

The leaves are made into non-alcoholic drinks by mixing milk and sugar.

Eulophia dabia (D. Don) Hochr. (Orchidaceae) **Hattajari.** AKB 412. GUH.

The tuberous roots are edible, which act as purgative and give strength.

Euphorbia royleana Boiss. (Euphorbiaceae) **Suru.** AKB 891. GUH.

Pith of the stem are boiled in water to remove latex, thoroughly washed and then cooked as vegetable.

Fagopyrum cymosum Meissin. (Polygonaceae) Perennial buckwheat; **Kanjulya.** AKB 115. GUH.

Leaves are used as vegetable.

Ficus samicordata Buch.-Ham. ex J. E. Smith (Moraceae) **Kheina.** AKB 808. GUH.

The syconia are eaten when ripe.

Fragaria vesica L. (Rosaceae) Alpine strawberry; **Bankaiphall.** AKB 571. GUH.

The ripe fruits are edible.

Gaultheria trichophylla Royle (Ericaceae) **Gheri.** AKB 106. GUH.

The fruits are edible and considered as strong stimulant.

Glycosmis pentaphylla (Retz.) DC. (Rutaceae) **Gurbheli.** AKB 660. GUH.

The fruits are edible.

Hemidesmus indicus (L.) Schult. (Periplocaceae) Indian Sarsaparilla; **Morchiyapar.** AKB 707. GUH.

The roots are used as a catalyst in the preparation of sur.

Hovenia acerba Thunb. (Rhamnaceae) **Sickala.** AKB 617. GUH.

The fleshy peduncles are edible.

Impatiens balsamina L. (Balsaminaceae) **Manjruya.** AKB 333. GUH.

I. glandulifera Royle (Balsaminaceae) **Bantil.** AKB 613. GUH.

The seeds of both the species are made into coarse flour and eaten during the time of scarcity of staple diet.

Lonicera angustifolia Wall. ex DC. (Caprifoliaceae) AKB 621. GUH.

The bright red and sweet fruits are eaten raw.

Microcystis acuminata (D. Don) Goel et Bhattacharyya (Orchidaceae) **Jhatbhak.** AKB 330. GUH.

The tuberous roots are edible which act as a purgative.

Moghania tuberosa (Detz.) Oltz. (Orchidaceae) **Cheena.** AKB 448. GUH.

The tubers are used as a vegetable.

Myrica esculenta Buch.-Ham. ex D. Don (Myricaceae) Bay-berry; **Kaphal.** AKB 780. GUH.

The fruits are edible. The ripe or green fruits are used in the preparation of refreshing drinks.

Olea glanduliflora Wall. ex G. Don (Oleaceae)

Gair. AKB 503. GUH.

The fruits yield an oil which is chiefly used as the salad oil.

Origanum vulgare L. (Lamiaceae) Potmarjoram; **Bantulsi.** AKB 543. GUH.

The tender shoots are edible.

Oxyria digyna (L.) Hill. (Polygonaceae)

Kailashalmoru. AKB 580. GUH.

The leaves of this alpine herb are used in the preparation of sauce or mixed with the other vegetables.

Paeonia emodi Wall. ex Royle (Paeoniaceae)

Himalayan Peony; **Tankamya.** AKB 752. GUH.

The tender leaves are boiled and thoroughly washed to make vegetables. The leaves are stored for off season use after boiling and washing. The preparation is supposed to be useful after delivery.

Phytolacca latbenia (Mag.) Walter (Phytolaccaceae) **Jagra.** AKB 490. GUH.

The fleshy leaves are cooked and used as green vegetable.

Pilea scripta (Buch.-Ham. ex D. Don) Wedd. (Urticaceae) **Chaulu.** AKB 385. GUH.

This aquatic herb is very much preferred as a green vegetable.

Polygonum polystachyum Wall. ex Meissn. (Polygonaceae) **Amahaldi, Khelya.** AKB 50. GUH.

The young shoots are used as a salad and green vegetable.

Polygonum verticillatum (L.) All. (Liliaceae) Solomon's Seal; **Khirkyanali.** AKB 463. GUH.

The green foliage of the young plant are used as a nutritive vegetable.

Prinsepia utilis Roule. (Rosaceae) **Bhenkuli.** AKB 55. GUH.

An edible oil is obtained from the seeds.

Prunus armeniaca L. (Rosaceae) Apricot. **Chullu.** AKB 172. GUH.

The fruits are edible and oil obtained from the seeds is used for cooking and burning as well as for applying on the scalp.

Prunus cerasoides D. Don (Rosaceae) Wild.

Himalayan Cherry; **Phaza.** AKB 30. GUH. The fruits are edible.

Prunus cornuta Steud. (Rosaceae) Himalayan bird cherry; **Jamnai.** AKB 390. GUH.

The fruits are edible and also used for brewing the liquors. The oil from the kernels is used as an edible material.

Pueraria tuberosa (Roxb. ex Willd.) DC. (Fabaceae) **Saral.** AKB 418. GUH.

The tubers and leaves are edible.

Pyrus pashia Buch.-Ham. ex D. Don (Rosaceae) **Mohal.** AKB 697. GUH.

The over-ripe fruits are edible.

Quercus dilatata (Fagaceae) **Moru.** AKB 689. GUH.

The insect galls produced on the leaves are eaten.

Reinwardtia indica Dumort. (Linaceae) Yellow Flax; **Pengul.** AKB 201. GUH.

The young leaves are used as vegetable.

Rhamnus pentapomica Parker. (Rhamnaceae) **China.** AKB 897. GUH.

The fruits are edible.

Rheum emodi Wall. ex Meissn. (Polygonaceae) Himalayan Rhubarb; **Archa.** AKB 555. GUH.

The young leaves are used as vegetable and the flower peduncles are also used in the preparation of the sauce.

Rhododendron arboreum Smith (Ericaceae) Rose tree; **Burans.** AKB 824. GUH.

The flowers are used in the preparation of sauce and cool drinks.

R. anthopogon D. Don (Ericaceae) **Bhotia Chai, Kodya.** AKB 236. GUH.

A substitute of tea is prepared from its leaves.

Rhus parviflora Roxb. (Anacardiaceae) **Tungla.** AKB 846. GUH.

The fruits are edible.

Rhus punjabensis J. L. Stew. ex Brand. (Anacardiaceae) **Almora, Titrai.** AKB 672. GUH.

The fruits are edible and are used in the preparation of cool drinks.

Ribes rubrum L. (Saxifragaceae) The Red Currant; **Kimkolia.** AKB 797. GUH.

The ripe fruits are used in the preparation of refreshing drinks.

Rhynchosia minima (L.) DC. (Fabaceae) **Bharatbaal.** AKB 662. GUH.

The roots are used as a catalyst in the preparation of sur.

Rubus niveus Thunb. (Rosaceae) Mysore Raspberry; **Katrana.** AKB 83. GUH.

The fruits are edible. The root extract is used in the preparation of alcoholic beverage (sur).

Rorippa nasturtium-aquaticum (L.) Hayek. (Brassicaceae) **Ghaderi, Kotul.** AKB 13. GUH.

The leaves are made into delicious vegetable.

Rosa macrophylla Lindl. (Rosaceae) **Bhunra, Kajo.** AKB 376. GUH.

The fruits are edible and rich in vitamin C.

Rosularia rosulata (Edgew.) H. Obha. (Crasulaceae) **Srulu.** AKB 401. GUH.

The stem and leaves are cooked as vegetable.

Rumex hastatus D. Don (Polygonaceae) **Kilmoru.** AKB 125. GUH.

The leaves are sour in taste. These are eaten raw as *Chatni* or mixed with the other vegetables.

R. nepalensis Spreng. (Polygonaceae) **Kharas.** AKB 133. GUH.

The leaves are frequently used as vegetables.

Salvia lanata Roxb. (Lamiaceae) **Gunni.** AKB 438. GUH.

The inflorescence are cooked into vegetables.

Saurauia nepaulensis DC. (Saurauiaceae) **Retendi.** AKB 452. GUH.

The leaves are fed to the cattle and the fruits are edible.

Selenium wallichianum (DC.) Raizada & Saxena (Apiaceae) **Berhatu.** AKB 473. GUH.

The seeds are prized for condiments and are frequently used with vegetables, curries, and pickles.

Smilax glaucophylla Klotzsch. (Smilacaceae) The tender leaves and shoots are made into vegetables.

Solanum violaceum Ortega. (Solanaceae) Indian nightshade; **Upcheura.** AKB 109. GUH.

The stem, leaves and roots are used in the preparation of sur.

Stellaria media (L.) Vill. (Caryophyllaceae) **Badyala.** AKB 301. GUH.

The entire plant is used as a green vegetable. It constitutes a famine diet.

Taraxacum officinale Weber ex Wiggers (Asteraceae) Common Dandelion; **Dudheli Karhatu.** AKB 40. GUH.

The leaves and flowers are used in the preparation of the vegetable and alcoholic drinks.

Taxus baccata L. (Taxaceae) Common Yew; **Thuner.** AKB 640. GUH.

The decoction of the bark is added with the sur for providing flavour to it.

Tulipa stellata Hook. (Liliaceae) **Ghaspyaz.** AKB 363. GUH.

The bulbs are edible.

Typhonium diversifolium Schott. ex Lindl. (Araceae) **Nakdoon.** AKB 483. GUH.

The tuberous roots are edible at the time of famine, small quantity (3 gms) of root powder, mixed with honey avoids the hunger for two days. The ripe berries are edible.

Urginea indica (Roxb.) Kunth (Liliaceae) White squill; **Banpiaz.** AKB 426. GUH.

The bulbs are used as vegetable whereas the leaves make a good spice.

Urtica dioica L. (Urticaceae) Stinging nettle; **Kaali, Kondali.** AKB 344. GUH.

Thoroughly washed, roasted and boiled tender shoots and leaves are prepared into vegetable. When mixed with *Kulath* (Horsegram, *Dolichos uniflorus* Lam.), it gives a delicious taste. The preparation is highly nutritious and is supposed to regulate the menstruation cycle.

Viburnum cotinifolium D. Don (Caprifoliaceae)
Bhutnoi. AKB 461. GUH.

The ripe fruits are eaten and the seed oil is edible.

Viola canescens Wall. ex Roxb. (Violaceae)
Sweet Violet; **Bafsa, Dunde.** Barali. AKB 26. GUH.

A substitute of tea is prepared by at first boiling the leaves for an hour and then drying them for three days.

Woodfordia fruticosa (L.) Kurz (Lythraceae)

The flowers are used in the preparation of cool drinks.

Xanthium strumarium L. (Asteraceae) Cocklebur; **Dhendevriya.** AKB 561. GUH.

The roots are used in the preparation of alcoholic beverages such as sur.

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