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Traditional Knowledge of Ethnomedicinal Plants of Girnar Ranges

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Abstract:

The indigenous people have helped to conserve unique biodiversity which come as great ecological legacy to the modern civilization. Poor and illiterate men and women had such a sense of conservation of biodiversity and knew its importance thousands of years ago. Which the modern environment scientists are realizing today. Some of the genetic resources especially those of food and medicinal crop plants conserved by the Indian tribal have proved highly valuable in improving the quality of human life and contributing to agriculture growth and economy. The research site, Girnar mountain is located in Junagadh, Gujarat, India. The present work makes a humble attempt to combine secondary information with primary field observation to provide comprehensive document related to the medicinal plants, their habitats, regional distribution, and Ethnobotanical practices in Gujarat. Data was collected about the informants, the local names of plants, medicinal value etc.

Key words: Ethnobotany, Traditional knowledge, Ethnomedicinal plants

Introduction

The 1978 technical report of the WHO discusses the role of traditional medicine in treating the masses in traditional ways.

It says…. " (The traditional method is) the sum total of all the knowledge and practices whether explicable or not, used in diagnosis, prevention and elimination of physical, mental and social imbalance and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing." The aim is to study the information possessed by ethnic groups either remained buried or forgotten and lost in antiquity. The listing of plants of ethnobotanical value is important for evaluating human-plant relationship and for understanding the regional human-ecology relations to their environment. Maintaining such traditional knowledge in the face of sweeping modern medicine and diminishing folk medicine is imperative and should be encouraged. Therefore ethnobotanical uses of plant species of the area is enumerated. This information gives a beneficial idea to the research scholar's investigation of the plant kingdom for chemical and pharmacological study is the prime activity of pharmaceutical research and to develop a new formation which will be pharmacologically active and free from the side effects.

Materials and Methods

Research site Girnar Mountain is located in the Junagadh. Junagadh district is one of the Saurashtra region of the Gujarat State. India. The District lies between $20^0$44' and $21^0$40' North latitude and $69^0$40' and $71^0$05' East longitude. It is surrounded on the east by the Amreli district and on the north by Rajkot and Jamnagar districts. It is bounded on the south and west by Arabian Sea. The mount Girnar is made up of Dalaraite or Bauxite types of rocks. Peaks are made up of Granite and lower part and base is of lime stone. The climate of research site is sub tropical monsoonal and can be eco-climately classified as semi arid type. The area is markedly affected by the Southwestern monsoon. The three distinct seasons that can be observed here are Summer (March to mid June), Monsoon (mid

June to mid September) and Winter (Mid of November to February). The colour of the soil ranged between dark brown and very dark greyish brown and varied slightly from depth to depth and site to site soil texture ranged from sandy loam to clay loam. As a whole the soil was neutral to slightly alkaline in nature. There is not much variation in PH during the different seasons. However, pH decreased with increase in depth during monsoon, maximum pH value was observed during summer season. Present work is based on the carefully planned trips in the study area. Field work selected on the basis of the available information on the areas to be visited and the people to be studied taking aid of maps, floras, icons, literature and discussion with personnel.

The area has been surveyed on foot in their various parts on a monthly basis with increasing frequency of visit during the monsoon months. Plants have been collected in the flowering and fruiting stages. They were identified on the spot and those plants which could not be identified were brought to the Department of Marine Science, Bhavnagar University, Bhavnagar. The identification was finally confirmed by matching with the help of authentic herbarium specimens available at S.P.University herbarium, Vallabh Vidyanagar and Saxton & Sedgwick herbaria Gujarat College, Ahmedabad. After identifications were confirmed all the herbarium sheets were labelled and arranged according to Bentham & Hooker system of classification of angiosperms. During the field studies habit, habitat, height of plant, colour of flower, association and other prominent features were also recorded. The purpose of the study was not only the collection of first hand information about the relationship of plants with the folk, but also to verify the already published data. The procedure of interview, discussion night meeting, dialogue was organized between people. Last step was to contact knowledgeable informants forest officers in the tribal area or medicine man who were taken to the field. Information was noted in the field on plant

species. Data were collected about the informants the local names of plants, for food medicines and other materials relationship as also culture of the folk. To collect ethnomedicinal data from tribal people questionnaire was prepared in local language. Information regarding various uses of the plants was collected with the help of the questionnaire for tribal individual administered to the actual forest dwellers in the tribal regions.

Observation

(001)
***Clematis gouriana* Roxb.**
Family: Rananculaceae
Vernacular name: Sanskrit: Murva
Field note: Occasionally found near Datar hill and Ambaji temple, rare.
Description: An extensive, glabrous climbers. Leaflets ovate or ovate-elliptic, sparsely hairy beneath. Flowers white or greenish –yellow, fragrant in 5-8 cm long panicles. Achenes ovoid compressed rufous –hairy.
Part Used: Leaves and roots.
Biological Activities: Bitter, astringent, alternative,sedative.
Ethnomedicinal uses:- Leaves paste is applied on scabies, blisters,eczema,boils,eczema etc. Infusion of leaves is used in sore throat, leprosy, fever and leukoderma. Decoction of root is given food poisoning, fever, skin disorders, piles, obesity, eye disorders, swellings etc.

(002)
***Michelia champaca* L.**
Family: Magnoliacae.
Vernacular name: Sanskrit : Champaka.
Field note : Cultivated Jinabavanimidhi, Bordevi temple.

Description: Evergreen trees with greyish, brown, rough bark. Leaves elliptic – oblong or elliptic – lanceolate, coriaceous, glabrous or finely hairy beneath, shortly petiolate. Flowers bright – yellow, fragrant, axillary solitary. Follicles oblong, grey with brown spots. Seed angular brown, shining.

Chemical composition: Palmitic acid, oleic acid, carbonyl acid, volatile oil, tannin, resin and fat.

Part used: Whole plant.

Biological activities: Purgative, emmenagogue, astringent, febrifuge, diuretic, bitter, acrid, digestive, carminative, stomachic, stimulant, antipyretic.

Ethnomedicinal uses:- Root and root bark is used in the treatment of constipation, inflammation. Stem bark is used in fever, cough, bronchitis. Flower, flower buds and fruits are used in dyspepsia, nausea, vertigo, opthalmia, bronchitis, malarial fever etc.

(003)

***Annona squamosa* L.**

Family: Annonaceae

Vernacular name : Sanskrit : Sitaphalam

Field note: Common in study area.

Description: A deciduous tree, with light black, rough, longitudinally fissured bark. Leaves glabrous, elliptic – oblong or oblong lanceolate, rarely obovate, petiolate. Flowers solitary or 2 – 3 fascicled, axillary or leaf opposed. Fruits globose or cordate – ovoid, with projecting areoles.

Chemical composition: - anonaine, roemerine, corydine, glaucine, catechin, borneol, saponin, starch, sugar, pectin.

Part used: Root, leaves, fruits, seeds.

Biological activities: Purgative, insecticidal, sweet, haematinic, cooling, sedative, stimulant.

Ethnomedicinal uses: Roots are useful in mental depression and spinal disorders. Paste of leaves used in boil and wound. Decoction of leaves given to patient of diabetes. Juice of leaves

and seeds is applied to cure dandruff. Fruits are useful in curing anaemia.

(004)

***Polyalthia longifolia* (Sonn.)**

Family: Annonaceae

Vernacular name: Sanskrit: Ulkatah, Kashtadaruh.

Field note: Cultivated,bordevi, jambudi.

Description: 7-12 m tall trees; bark light –balckish-brown, leaves lanceolate, glabrous petiolate. Fruit ovate-oblong, glabrous pale-yellow. Seeds glabrous shining.

Chemical Composition: Tannin, iron.

Part Used: Bark, leaves.

Biological activities:

Bitter, acrid, febrifuge, astringent, thermogenic, styptic, antipyretic, expectorant.

Ethnomedicinal uses:- Bark is useful in diabetes, hypertension, diarrhoea, bleeding piles etc. Decoction of bark is given in fever, leucorrhoea. Paste of leaves is applied on wound, cuts, boils, piles.

(005)

***Cissampelos pareira.* L.**

Family: Menispermaceae

Vernacular name: Sanskrit: Shveta patha, piluphala

Field note: Common in study area.

Description:- A slender twiners, somewhat woody at base, glabrous but for pubescent younger parts. Leaves alternate silky-pubescent beneath, minutely mucronate at apex, petiolate. Flowers greenish yellow, males axillary panicles, females pendulous racemes. Fruit drupes.

Chemical composition: Sepeerine, cissampeline, hyatin, quercitol.

Part Used: Roots, leaves.

Biological activities: Sedative, suppurative, astringent, antidote, diuretic.

Ethnomedicinal uses: Plant is used as blood purifier and in treatment of dysentery, fever, cough, swelling, malaria, vomiting, indigestion, colic pain. Decoction of root is used in diarrhoea. Leaves paste is applied externally on cuts, wounds and at the place of animal bites.

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