ETHNOBOTANICAL STUDIES IN HARAMOSH AND BUGROTE VALLEYS (GILGIT)

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ABSTRACT

This paper deals with the Ethnobotany of Haramosh and Bugrote valleys of Gilgit Agency (Northern Areas, Pakistan), including studies on geography and ethnology. This work is based upon two years field studies (2001-2002). During this period 260 species were collected and ethnobotanical uses of 20 species are described here. The present study indicates that the peoples of Haramosh and Bugrote valleys show certain similarities in the uses of plants with other people of Northern Areas. Although the Flora of Pakistan can be considered as an inventory of the plants of Pakistan, but Haramosh and Bugrote valleys contain certain such localities which have not been floristically explored to date. Besides this, no ethnobotanical work has been done before in these valleys.

Key-words: Ethnobotany, Haramosh, Bugrote, medicinal plants

INTRODUCTION

In broad terms, Ethnobotany is the study of relationship between plants and people. The two major parts of the Ethnobotany are encapsulated in the word itself: “ethno” the study of people, and “botany” the study of plants. However, the field is limited on both sides. On botanical side of the field few ethnobotanical studies are concerned with plants that have no connection to people. On ethno side, most studies are concerned with the ways indigenous people use and view plants (Balick and Cox, 1997).

The term “indigenous people” refers to peoples who follow traditional, non-industrial lifestyles in areas that they have occupied for generations. The relationship between plants and people is often clear in indigenous societies than in our own, since the link between production and consumption in more direct.

INTRODUCTION TO STUDY AREA

Haramosh and Bugrote are the most beautiful valleys of Gilgit. Both valleys lie among Gilgit, Hunza and Skardu rivers. These valleys lie 40 to 50 km to the North East of the Capital city Gilgit and comprise different villages, which have an indigenous population of about 28000 inhabitants according to 1998 census. Phytogeographically the area belongs to Eastern Irano-Turanian region.

TOPOGRAPHY

Both valleys have several mountains, glaciers, peaks, forests, cold deserts, shrub lands on different latitudes and altitudes. Following three famous Glaciers Peaks are situated in these valleys:

I) Rakaposhi 7315m b/w Nagar and Haramosh
II) Bilchartubani 6134m b/w Bugrote and Haramosh
III) Sassi Summarii 7200m b/w Haramosh and Skardu

Physiognomically the area is high land deeply cut by rushing hill torrents and rugged topography forming V-shaped valleys.

The climate varies in different areas that is micro-climate in each place. Temperature is very low in winter falling below 0ºC. Good field work is possible only from April to October as after this, the snow begins to fall. Although the Flora of Pakistan can be considered as an inventory of the plants of Pakistan, but Haramosh and Bugrote valleys contain many such localities, which have not been floristically explored to date. Beside this no ethnobotanical and inventorying work has been done before in these valleys.

ETHNOLOGY

During the period of 1840 to 1892 the independent state in the area fell to combined aggression of British India and Maharaja Kashmir forces and they established the Gilgit agency in 1889. Earlier Bugrote and Haramosh merged with Baltistan were later placed under Gilgit. After that this area was completely isolated from the British and
Indian control on 1st November 1948. The peoples of both valleys have close physical and cultural affinities with each other and other people of Northern areas. Their local language is known as ‘Shinah’. The peoples of both valleys depend on the agriculture and pastoral activities. Major livestock are sheep, goats and yak etc.

**VEGETATION**

In a broad sense the study area can be categorized in the following ecological zones.

![Vegetation zones diagram]

I) The tropical cold desert area is situated along with main Indus River. In summer the temperature of this area increases up to 45ºC but in winter it falls below -5ºC. In this area mostly *Capparis spinosa*, *Artemisia* spp., *Haplophyllum gilesii*, *Heliotropium* spp., are found, among which *Haplophyllum gilesii* is an endemic species.

II) Temperate mountain region starts from 1219 – 3000m in which all the villages of Haramosh and Bugrote are included. In this area some species of *Artemisia*, *Rosa webbiana*, *Tamaricaria elegans* and some other perennial and annual herbs are found with great diversity.

III) The sub-alpine zone start from 3000m up to 4500m, it includes almost upper reaches of the mountains of Haramosh and Bugrote valleys. In this area *Betula utilis*, *Ribes* spp., and *Pinus* spp. are found.

IV) In Alpine zone the climate is more severe than sub-alpine area. This area includes upper most reaches of the entire region from 4500 to 5500m and above. In this zone some *Salix* spp., *Gentianodes* spp, *Aquilegia* spp, *Delphinium* spp., *Rhododendron* spp. and some grasses are found.

**MATERIALS AND METHODS**

During the spring of 2001 and 2002, 260 different flowering plant species were collected from different localities of project area belonging to 57 different families of spermatophyta and identified them with the help of Flora of Pakistan (Ali, 1971; Nasir; 1972; Jafri, 1973; Kazmi, 1974; Ghafoor, 1974; Jafri, 1975; Ghazanfar, 1977; Ghafoor, 1981; Smith, 1986; Nasir, 1987; Riedl, 1991; Hedge, 1990; Omer, 1995; Qaiser, 2001; Ghafoor, 2002; Pennell, 1943.) as well as by the help of authentic specimen available in the Karachi University Herbarium. After
identification voucher specimens were deposited in the Karachi University Herbarium. During the period of study some relevant indigenous persons were interviewed for obtaining ethnobotanical information, including male and female traditional healers of different ages. Data on each species are presented in the following sequence: Botanical name, local name and traditional uses (Table 1).

Table. 1. Enumeration of medicinal plant species and their ethnobotanical uses.

<table>
<thead>
<tr>
<th>S/n</th>
<th>BOTANICAL NAME</th>
<th>LOCAL NAME</th>
<th>FAMILY</th>
<th>TRADITIONAL USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Berberis pseudoumbellata</em> Parker</td>
<td>Ishkeen</td>
<td>Berberidaceae</td>
<td>for wounds, pain in joints, internal body infections.</td>
</tr>
<tr>
<td>2</td>
<td><em>Capparis spinosa</em> L.</td>
<td>Kavir</td>
<td>Capparidaceae</td>
<td>Seed oil is used for gout, skin diseases</td>
</tr>
<tr>
<td>4</td>
<td><em>Artemisia maritima</em> L.</td>
<td>Zoon</td>
<td>Compositae</td>
<td>for pneumonia, cough, fever, and abdominal pains.</td>
</tr>
<tr>
<td>5</td>
<td><em>Saussuria simpsoniana</em> Field &amp; Garden. Fig. 1</td>
<td>Boushe. Phooner</td>
<td>Compositae</td>
<td>for respiratory problems, pneumonia, cough and asthma.</td>
</tr>
<tr>
<td>6</td>
<td><em>Ephedra gerardiana</em> Wall. ex Stapf.</td>
<td>Soom</td>
<td>Ephedraceae</td>
<td>Asthma, respiratory problems and cough.</td>
</tr>
<tr>
<td>7</td>
<td><em>Rhododendron hypenanthon</em> Balf.</td>
<td>Talaherchum</td>
<td>Ericaceae</td>
<td>for allergy, asthma and cough.</td>
</tr>
<tr>
<td>8</td>
<td><em>Euphorbia cornigera</em> Boiss.</td>
<td>Foton</td>
<td>Euphorbiaceae</td>
<td>Constipation</td>
</tr>
<tr>
<td>9</td>
<td><em>Swertia petioluta</em> D.Don</td>
<td>Plamuth</td>
<td>Gentianaceae</td>
<td>Fever, asthma, headache, gout and insect repellent</td>
</tr>
<tr>
<td>10</td>
<td><em>Mentha royleana</em> Benth.</td>
<td>Bonoh</td>
<td>Labiatae</td>
<td>Indigestion, cough, fever.</td>
</tr>
<tr>
<td>11</td>
<td><em>Thymus linearis</em> Benth. Fig. 2</td>
<td>Tumoro</td>
<td>Labiatae</td>
<td>Digestion, blood pressure, headache, flu and cough.</td>
</tr>
<tr>
<td>12</td>
<td><em>Plantago major</em> L.</td>
<td>Kanh-kapiyi</td>
<td>Plantaginaceae</td>
<td>Indigestion, eye redness and thirst problems.</td>
</tr>
<tr>
<td>13</td>
<td><em>Rheum australe</em> D. Don. Fig 3</td>
<td>Jaroo-chotal</td>
<td>Polygonaceae</td>
<td>Gout, backache, all pains in body.</td>
</tr>
<tr>
<td>14</td>
<td><em>Delphinium brunonianum</em> Royle Fig. 4</td>
<td>Makhoti</td>
<td>Ranunculaceae</td>
<td>Hair elongation, cough, sore throat, fever, asthma, typhoid and malaria.</td>
</tr>
<tr>
<td>15</td>
<td><em>Bergenia stracheyi</em> Hook. f. and Thoms.</td>
<td>Sapser</td>
<td>Saxifragaceae</td>
<td>Pneumonia, cough, fever and wounds.</td>
</tr>
<tr>
<td>16</td>
<td><em>Verbascum thapsus</em> L.</td>
<td>Masugut</td>
<td>Scrophulariaceae</td>
<td>Wounds, swellings, abdominal pains.</td>
</tr>
<tr>
<td>17</td>
<td><em>Ferula narthex</em> Boiss.</td>
<td>Sup</td>
<td>Umbelliferae</td>
<td>Asthma, ulcer, cough, anxiety, fever.</td>
</tr>
<tr>
<td>18</td>
<td><em>Urtica dioica</em> L.</td>
<td>Jamii</td>
<td>Urticaceae</td>
<td>Ulcer, pain in joints.</td>
</tr>
<tr>
<td>19</td>
<td><em>Peganum harmala</em> L.</td>
<td>Ispundur</td>
<td>Zygophyllaceae</td>
<td>Asthma, eye inflammation, liver pains, allergy.</td>
</tr>
<tr>
<td>20</td>
<td><em>Tribulus terrestris</em> L.</td>
<td>Showo khono</td>
<td>Zygophyllaceae</td>
<td>Dyentery and stomach problems.</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

Ethnobotanical studies of Haramosh and Bugrote valleys are of considerable interest because the area is categorized on several ecological zones, along the elevation gradients, which are known by local names. These ecological zones contain a quite rich flora with a great species diversity. The medicinal plants are more abundant at higher elevation. In this paper only those plant species are described which are extensively used by everyone for different purposes. Specimens of 260 species were collected during the spring of 2001 and 2002. Of these, twenty species (in 16 families) are medicinally used by the indigenous people (Table 1). The peoples of both valleys use maximum number of species for medicinal purposes. Almost everyone knows about the importance of plants, but young generation totally depends upon allopathic medicines. The data was collected mostly from aged persons who themselves have used that particular species for different purposes. To compare the data collected from project area with other areas of Gilgit, some other persons of different areas were interviewed about the above mentioned plant
species. They also gave the same information about them because these plant species are commonly used in most parts of Gilgit particularly for curing respiratory problems, asthma, joint pain and abdominal disorders.
REFERENCES


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