Chapter IV

MATERIAL AND METHODS
CHAPTER-IV

Material and Methods

Methodology:

A reconnaissance survey was carried out in all 24 villages of Ratapani Sanctuary during 2002-2005. Many areas of the study region are inhabited by certain tribes including Gond, Sahariya, Bhil etc. These primitive people more or less used many local plants for the treatment of their ailments and various diseases. The deep forest and Valley localities provide a vast scop for the study of medicinal plants. The selected sites of Sanctuary were visited for the collection of plants in each season of the year. The information was collected from every elder person of each family of the Sanctuary. There are two basic approaches adopted to study the ethnomedicinal practices and knowledge in the study region.

The first one was the interview involving asking of questions about use of plants for medicines, following the details given in the proforma, which includes the name of plants, visit to forest sites with the name of informant for identification of the specific plants on the basis of local name. The second approach, which is called ‘inventory’, includes collection of plant specimens and then interviewing the informants for names and uses. These approaches were repeated with the knowledgeable people, elders, traditional healers, tribals people, villagers etc.

Method of data collection:

Total 12 field trips each of 60 day’s duration, were conducted in three season’s of the year, (Table 6).
The field trip's were so planned that in each season at least four trips were arranged for each collection site. But the end of 24 trip's, the entire region was covered and each time at least one village in each zone was conducted.

Table 6: Showing collection sites and field trips

<table>
<thead>
<tr>
<th>Season</th>
<th>Trip’s No</th>
<th>Collection sites</th>
<th>Duration (No. of Day’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>1, 2, 3, 4,</td>
<td>a, b, c, d,</td>
<td>20 day’s</td>
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<tr>
<td>Rainy</td>
<td>5, 6, 7, 8,</td>
<td>a, b, c, d,</td>
<td>20 day’s</td>
</tr>
<tr>
<td>Winter</td>
<td>9, 10, 11, 12</td>
<td>a, b, c, d,</td>
<td>20 day’s</td>
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</table>

Collection of plants and Identification:

Collection of plant materials was done following the standard methods of collection. Most of the species were identified on the spot. Species, which were not identified on the spot, brought to the Herbarium of Botany Department, Dr. H.S. Gour University, and identification was done with the help of floras and confirmed by comparing the specimens of the Herbarium.

The necessary items required during collection of plant and plant part’s in the field, (such as- Camera, Vasculum, Polythene bag, Newspaper, Blotting paper, Field press, Shoulder bag, Forceps, Pen, Pencil, Pocket lens, Thread, Field note book etc.) were carried.

Preparation of Herbarium:

The herbarium was prepared according to customary method’s (Lawrence 1951). The plant part’s were pressed immediately between blotting sheets or newspaper in a wooden field press. Specimen’s were properly dried by a number of change of blotting
paper and sprayed with saturated solution of Mercuric Chloride (HgCl₂).

These plant specimens were critically studied and identified with the help of keys of families, genera and species, and other taxonomic details given in the floras like, Cooke (1901-08); Duthie (1903-29); Gamble and Fisher (1915-36); Hooker (1872-97); Maheshwari (1963); Mukherjee (1984); Oommachan (1977); Rouxburgh (1820); Singh (1983). All the identified species were arranged as per the Bentham and Hookers systems of classification. The perennial part's like- rhizome, tubers, fruits, seeds, were also collected and preserved in any one of the fixatives prepared by the following formulae-

1) Formaline aceto alcohol (F.A.A.)
   90% Ethyl alcohol - 90.00 ml
   Glacial acetic acid - 5.00 ml
   Formaline - 5.00 ml
   ------------------------
   100.00 ml.

2) Formaline and alcohol (F.A.)
   90% Ethyl alcohol - 95.00 ml
   Formaline - 05.00 ml
   ------------------------
   100.00 ml.
PROFORMA

For
Collection of information from tribals of Ratapani Sanctuary,
District Raisen (M. P.)

Collected by
Rachana Saxena
(Research Scholar)
Department of Botany
Dr. H.S. Gour University
Sagar (M.P.) 470003

Name of tribal : 
Age : 
Occupation : 
Name of Village : 
Caste : 
Plants used for diseases : 

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Plant</th>
<th>Botanical Name</th>
<th>Family</th>
<th>Diseases</th>
<th>Parts &amp; Uses</th>
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