CHAPTER-3. MATERIAL AND METHODS

Ethnobotanical Survey and the study

In the present study, repeated field trips are conducted in villages of the five talukas of vijayapur district. The main emphasis is given to intensive field work in Vijayapur district from February 2014 to June 2016 to collect the ethnobotanical information and plant specimen of every season of the year. Totally more than 10.000 kms of field trips are conducted to approach the traditional practitioners and beneficiaries in Vijayapur district. Photographs of medicinal plant species and interactions of research investigator with traditional practitioners and beneficiaries are taken. Video clips of beneficiaries in presence of traditional practitioners with research investigator are shot.

Collection of plant specimen:

The medicinal plant species and parts of the plants are collected from all four corners of the Vijayapur district. Plant specimens are collected with flower or fruits, or preferably both. Herbaceous plants were picked up entirely. Proper care is taken to collect the underground parts of the plants, twigs of about 25 cms lengths with flower and fruits are chosen.

Data sheet:

A questionnaire (Data sheet) is prepared to collect information from traditional practitioners. Data sheet which includes Name of Traditional practitioner, age, occupation, date of visit, knowledge (Aquired/ Ethnic), locality, vernacular names of plants, botanical name, family, habit, dosage etc, and field study note book is also maintained to record the more information during the interactions and in the field.

Preparation of Herbarium:

The specimens are either pressed in the field or else they are kept in thick quality polythene or gunny bags of assorted sizes. The extra leaves or branches, etc are removed. The pressing sheets with specimens are placed one over the other and then tightly bound in a plant press, applying uniform pressure. The plants dried by using conventional dry method. The pressed sheets are changed every day till they are
perfectly dried up. The succulent plants were sprayed with 4% alcoholic formalin or dipped in boiling water in order to kill the tissue to avoid the fungal infections. The plant specimens with tags are then kept in the newspaper folds for mounting and labelling.

The pressed plant specimens were then mounted on the herbarium sheets of standard size measuring 11½ x 16½ inches or 28x42 cm. For sticking the specimens to the sheet, glue sticks with hot-melt adhesive (HMA) or glue was used. The mounted specimens were stitched from the back at points to hold the specimens better. Loose (detached) plant parts such as fruits and seeds were placed in a paper packet and pasted to the mounting sheet. At the bottom of the herbarium sheets at right corner, labels are made and which carries information about the mounted specimens. The information gathered which include Habit, Family, Genus, Species, Local name, Place of collection, Morphological characters, Date of collection and Name of collector. The plant materials like seeds, fruits, roots and leaves also collected and drieded up.

**Identification of Medicinal Plants:**

The tentative identification of plant species are done in the field, in some cases where it is not possible, the specimens are brought in to the laboratory and they are identified by referring the flora such as “Flora of Gulbarga District” (Seetharam et al., 2000), “The Flora of the Presidency of Madras” (Gamble, 1984). “The Flora of the presidency of Bombay” (Cooke, 1903). Some of the plant specimens which could not identified up to the species level is later confirmed by experts and compared with the specimens deposited in the Dept of P.G studies and Research in Botany Gulbarga University, Kalaburgi.

During the identification the morphological characters such as habit, habitat, stem, leaves, flowers, inflorescence, calyx, corolla, stamens, anthers, carpels, ovary, ovules, fruit, seed and cotyledons are taken into consideration for easy identification.

**Enumeration of Ethnomedicinal plants:**

In the enumeration, plant species of ethnobotanical interest are arranged alphabetically with ICBN name, synonym (if any), and family and followed by vernacular names in Kannada. A brief description of the species reflecting the
distinguishing characters, flowering and fruiting season (phenology) are mentioned. The Angiosperm Phylogeny Group APG I-1998, APG II-2003, APG III 2009 and APG IV 2016 followed. On the basis of this research, medicinal uses are reported and compared with the other literature (Research areas).

The present accepted author citation, new name of plant species, synonym, and new name of family is written and old family name is kept in bracket.

After the survey, the symptoms and ailments, correct form of the English terms for particular disease or disorder are discussed, collected and written with consultation of doctors. For example leucorrhoea – white discharge in women.