SUMMARY AND CONCLUSION
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Ethno-medico-botany and Ethnopharmaceutics is gaining importance today particularly in the field of medicine (Sukh Dev, 1997). Many of the plants used by our indigenous tribes or rural community have brought out several useful chemical compounds and medicinal formulations. These are used to overcome many important diseases. However very little systematic scientific investigations are available on these ethno-medico-botanical claims. At the same time, the primitive societies or rural community are exposed to the modern developments resulting in the gradual diminishing of this heirarchial knowledge. Hence it is urgently required to collect all the important ethno-medico-botanical knowledge available with our primitive / rural community so that they may be utilized for the benefit of society in future. Recently the World Health Organization has been laying importance on the traditional systems of medicine which include a number of medicinal plants for serving community health care.

The present investigation on the pharmacognosy of some indigenous plants include a detailed ethno-medico-botanical investigation on the different tribes and communities of Chittoor district, besides pharmacognostical investigations on five important endemic medicinal plants of this district which are used by the ethnic community for various diseases even to-day.

The main tribal people found in the area of study are Yanadi (Y), Yerukula (Ye), Irula (I), Nakkala (N) and Sugali (S). Field investigations to the several pockets of these tribes and rural community in the study area
(Chittoor district) were carried out over a period of 6 years (1995-2000). A total number of 420 field numbers comprising of 1900 herbarium specimens were collected and deposited in the herbarium of Dept. of Botany, S.V. Arts College, Tirupati. Ethno-medico-botanical information on 157 species were gathered as per established scientific ethnobotanical protocol and analysed (Jain, 1981, 1987, 1989, 1993; Jain and Pal, 1982 and Shah, 1982). The main diseases for which these plants are used are diarrhoea, dysentery, skin diseases, piles, gynaecological disorders like leucorrhoea, menorrhagia, and dysmenorrhoea, antifertility, leucoderma, cough, cold and fever to mention a few. These species fall into 142 genera and 71 families. The correct valid name along with original citation, important references, brief botanical description, phenological data, locality and ethnomedicinal uses are presented for every species. Vernacular names which is a very important tool for local identification were also gathered and presented for every species.

The district harbours seven plants which are endemic (Rao et al., 1981; Rao and Raja Reddy, 1983a and Madhava Chetty and Rao, 1990). Out of these, five plants namely *Boswellia ovalifoliolata*, *Pterocarpus santalinus*, *Terminalia pallida*, *Syzygium alternifolium* and *Pimpinella tirupatiensis* were selected for pharmacognostical investigations in the present study. The macro- and microscopical characters of the part(s) used, histochemical tests, quantitative microscopy and phytochemical analysis including organic analysis and chromatographic studies were carried out. The macro-and microscopical characters resulted in identifying important diagnostic characters for the part used of the species.
For example the stem bark of *Boswellia ovalifoliolata* which is used by the local people can be identified easily with the following diagnostic characters: 1. presence of resin canals towards the upper region of the secondary context, 2. presence of brownish, tanniferous cells in the parenchymatous cells of secondary cortex, 3. stone cells of various size and shape with a broad lumen and 4. fibres with criss-cross striations; like wise *Pterocarpus santalinus* (wood & fruit) may be identified by the following characters. A. *Wood*: 1. presence of calcium oxalate crystals and starch grains in the medullary ray cells, 2. presence of drum or barrel shaped vessels, 3. fibres with narrow pointed ends and pitted thickenings and 4. presence of uniseriate medullary rays. B. *Fruit*: 1. presence of tannin in the parenchymatous region of wing portion, 2. groups of stone cells which are polygonal to rounded in shape, tanniferous parenchymatous cells and compactly arranged stone cells in the testa region, 4. unicellular trichomes and 5. oil globules in the parenchyma of the wing portion; *Terminalia pallida* (wood & fruit) possess the following characters. A. *Wood*: 1. presence of solitary or paired large vessels, uniseriate medullary rays and drum shaped vessels, 2. parenchymatous cells which are hexagonal or oval shaped and 3. presence of starch grains in some medullary-rays. B. *Fruit*: 1. presence of simple and compound starch grains and oil globules in the mesocarp region, 2. mature fruit shows rosette type of calcium oxalate crystals. 3. presence of abundant, elongated or polygonal stone cells in the mesocarp region and tannin in the epicarp region; *Syzygium alternifolium* (stem and fruit) can be easily identified with the help of the following characters - A. *Stem*: 1. presence of rod shaped calcium oxate crystals in some cells of the cork region, 2. presence of oil cells and group of
stone cells with concentric rings in secondary cortex and 3. presence of uni to bi seriate medullary rays in secondary phloem. B. Fruit: 1. presence of abundant, polygonal to rounded stone cells with heavily thickened cell walls with narrow lumen and pits, 2. abundant brown to chocolate coloured tannin, 3. cotyledons with abundant and simple starch grains and 4. presence of calcium oxalate crystals; and Pimpinella tirupatiensis root tuber may be identified by the following characters - 1. presence of oil cells towards the upper region of the cortex, 2. presence of rod shaped calcium oxalate crystals in the cortex. 3. sparsely distributed simple starch grains and stelar region with diarch xylem.

The taxonomical characters of the species, macro- and microscopical characters of the part used and the phytochemical analysis help in identifying the drug/plant material to overcome the use of substitutes and adulterants for these plant drugs.

In conclusion, the present studies have revealed the hither to unknown ethno-medico-botanical potential of 157 species in Chittoor district. These are used by the tribal people and rural community to overcome several important diseases even today. This work has also brought to light the macro- and microscopical characters and phytochemical parameters on five endemic plants of this district, on which very little investigations are available. This helps not only in the standardization of these drugs but also in laying down pharmacopoeial parameters for these important ethno-medico-botanical endemic plants. This study provides a treasure of information
useful in promoting the primary health care of the community not only in the
district but also elsewhere in the country and thus paving way for achieving
the goal of "health for all" in the present century envisaged by the World
Health Organisation. It also provides original scientific data on the
pharmacognostical and phytochemical investigations of 5 endemic medicinal
plants of the district helping in laying down pharmacopoeial standards.