The indigenous people of India, for centuries, have relied on herbal medicine for all aspects of their primary health care. Medicinal plants have become the focus of intense study recently in terms of conservation and as to whether their traditional uses are supported by actual pharmacological effects are merely based on folklore. The prime objective of the present study is enumeration of ethnmedicobotanical knowledge from the Pañaiyans of Sirumalai Hills.

The study area of Sirumalai Hills harbours a rich natural vegetation with distinct forest types, viz scrub forest, deciduous forest, savannah woodland and semi-evergreen forest. These forests are the habitat for about 1,200 higher plant species, of which more than 25 are endemic species. The vegetation also includes nearly 90 common medicinal plants, some of which are endangered, viz. Cycas circinalis, Lobelia nicotianifolia, Myristica dactyloides and Entada pursaetha. Nearly 40 economically important crop plants were also recorded from this area.

The intense forest area of Sirumalai Hills is inhabited the aboriginal scheduled tribal group, namely the Paliyans. There are 26 families scattered throughout the hilly areas. All of them are illiterate and do not follow any family planning methods. The Paliyans follow the traditional mode of life which is nomadic and semi-nomadic and their occupation is honey gathering and tuber collection. Occasionally they gather and sell non-timber forest produce, including medicinal herbs. They seldom meet the people of other communities.
The ethnomedicobotanical enumeration indicates that the *Paliyan* tribe of Sirumalai Hills use different parts of around 110 plant species belonging to 107 genera and 63 families. Among these plants the angiosperms contribute a higher percentage of ethnomedical value (40%) than the other divisions of plants. Based on the use, the herbs are rated of higher medicinal value than the shrubs, the trees, the vines and the climbers. Of the parts of the plants used as medicine the leaves stand first, followed by the other parts, viz. root, bark, flower.

Out of the 115 botanical formulations used by the *Paliyans*, 110 are used to treat nearly 20 ailments and 5 are used as poisons (suicide). The present observation shows that seven plant species of medicinal values are used exclusively by the *Paliyans* tribe, in addition to the other plants that are used elsewhere also.

Of the 110 plant species used by the *Paliyans*, 38 were randomly selected for preliminary phytochemical and antimicrobial screening. The useful parts of these plants were extracted with water and with different solvents-ethanol, petroleum ether and hexane. All the four kinds of extracts of the 38 species tested showed the occurrence of 10 different phytochemicals from different parts of the tested plants. The study showed that a large number of ethnomedicinal plants possessed phenolic acids and flavonoids. The other phytochemical components included alkaloids, terpenoids, triterpenoids, flavones, phenols and saponins. Out of the 38 species tested, nine species yielded alkaloids and 12 species yielded flavonoids and terpenoids. In the ethanol extracts of *Alstonia venenata*, *Combretum alb/dum* and *Lobelia nicotianifolia*, strong inhibition of growth was observed against all the test organisms (four bacteria and one fungus). Petroleum ether extracts produced moderate inhibition while hexane and water extracts showed very poor
rate of inhibition. The ethanol extract was found to possess a broader activity spectrum than the other solvent extracts. The occurrence of different phytochemicals may be responsible for the antimicrobial activities observed in the present study.

The *Paliyan* people have much faith and belief in their gods and goddesses who are residing in the natural forest such as sacred groves. The present study has recorded seven sacred groves of the *Paliyans* that are serving as a natural gene bank of several medicinal wild plants. Continuous and indiscriminate collection of plants, coupled with deforestation activities in the diverse ecosystems, has led to the destruction of natural habitats resulting in the irreplacable loss of valuable medicinal plants. Several medicinal plants and medicinal seeds are collected by the tribals for trade purpose. A large number of valuable medicinal plants have dwindled due to over-exploitation and further propagation declines, as the seeds are used up. Due to intense deforestation activities and discontinuity of traditional knowledge, these potential medicinal plant resources are on the verge of extinction. The protection of the local knowledge and medicinal plants in their original habitat are urgent tasks to be taken up for conserving the plants for posterity.