SUMMARY

In the present study, about 16 wild edible tubers/corms/rhizomes reported to be eaten by the tribal Kanikkars of Kanyakumari district, Western Ghats, were collected and documented. The collected 16 wild edible plants belong to 5 families. Among the edible plants collected, the tubers of *Dioscorea* species are harvested in large quantities and consumed almost all over the year.

The chemical analyses of the various edible parts reveal that most of them appear to be good sources of crude protein, crude lipid, crude fibre, NFE, starch and minerals like potassium, calcium, magnesium, zinc and iron. The anti-nutritional factors such as total free phenolics, tannins, hydrogen cyanide, total oxalate, amylase inhibitor and trypsin inhibitor activity were detected in all the collected samples.

The proximate composition reveals that most of the investigated plant parts appear to be good sources of crude protein and crude lipid. Among the investigated edible parts, the starch content is found to be high in the tubers of *Manihot esculenta* var. M-4. The maximum calorific value is registered by the tubers of *Dioscorea bulbifera*. The data on mineral profiles reveal that potassium is the predominant element in the tubers of *Dioscorea alata*, *Dioscorea esculenta* and corms of *Xanthosoma sagittifolium* and *X. violaceum* vis-à-vis RDA's value of NRC/NAS (1989). All the investigated plant parts exhibited *in vitro* protein and *in vitro* starch digestibility. Tubers of *Dioscorea bulbifera* and *Manihot esculenta* var. H-226 showed high *in vitro* starch digestibility.
Different processing methods of the edible parts showed that autoclaving for 45 minutes reduces the amount of anti-nutrients to a maximum level thus improving the \textit{in vitro} protein and \textit{in vitro} starch digestibility.

Based on the chemical evaluation of the wild edible plant parts used by the Kanikkars, the tubers of \textit{Dioscorea esculenta}, \textit{D. oppositifolia}, \textit{D. wallichi}; corms of \textit{Xanthosoma sagittifolium} and \textit{X. violaceum} and rhizomes of \textit{Maranta arundinacea} and \textit{Canna indica} may be advocated for the popularization and large scale cultivation so that these excellent foods can be made readily available for the increasing population.