

Abstract

Mistletoe is a well-known group of parasite belong to angiosperms which have their own photosynthetic capability and may be root parasites or shoot parasites. Three major types of mistletoes are common in southern part of West Bengal i.e. *Loranthus parasiticus*, *Viscum album* and *Macrosolen cochinchinensis*. The extensive survey from this area concluded their interaction as well as their distribution pattern with respect to different host specificity. It has also observed that the non-disturbed zone with respect to pollution are more preferred by those mistletoes for flourished. They used different way out to intermingle their haustorium with the host branches to get nourishment and for survive. Their micromorphology and anatomy helps to clarify lots of data on the basis of leaf surface, stem texture, internal orientation of cells and tissues, stomata types and pattern, leaf powder character, organoleptic characters etc. The potent anti-microbial activity in-vitro exhibit a new hope for future medicinal roadway. Side by side, its alpha-amylase inhibitory property also draw an attention towards anti-diabetic effect of these plant extract. The synthesis of nano-particles by these mistletoes is also a significant role as the particle is very much useful for medicinal treatment. The phytochemicals and different types of active principles present within it lead to new era towards future drug development. So, the overall study focused mainly on the phytochemistry and different medicinal aspects of these three miostletoes in respect to present scenario in this part (southern region) of West Bengal.