

In dicotyledons, the percentage of living cells gradually decreases from the apex to wad the root collar. Our previous results show that in *Calophyllum cordato-oblongum*, the amount of coumarins present and the percentage of living cells in distinct plant has a significant correlation. Further we have observed that buds contain the highest amount of coumarins. Based on the distribution of pyranocoumarins in *C. cordato-oblongum* we have come to following conclusion. As the young plant tissues are more vulnerable to external microbial attacks, antimicrobial active coumarins may be synthesized in the young plant tissues as a defence mechanism.

In Sri Lanka, ten endemic *Calophyllum* species have been reported and of them coumarins are detected only in *C. mooni*, *C. cordato-oblongum* and *C. bracteatum*. As a first step, we have decided to check whether there are any coumarins in the buds of coumarin bearing *Calophyllum* species. Our present investigation of *C. moonii* and *C. bracteatum* indicated the presence of pyranocoumarins in the buds of both of the species.

It is interesting o note that, in all the three coumarin bearing *Calophyllum* species in Sri Lanka pyranocoumarins are present in higher amounts in the buds which are highly vulnerable to the external microbial attacks. This observation further confirms our hypothesis regarding the defence mechanism of *Calophyllum* species.