



Investigation of anti oxidant activity of *Fluggea leucopyrus*

Bulugahapitiya, V.P. and Madhuranga, B.K.S.

Department of Chemistry, Faculty of Science, University of Ruhuna, Matara, Sri Lanka.

✉ vajira@chem.ruh.ac.lk

This work presents the investigation of anti-oxidant activity of *Fluggea leucopyrus* to validate its anti-cancer potential as *F. leucopyrus* has been found as a good healer for cancer by traditional practitioners in Sri Lanka.

The aqueous extracts of leaves and bark of *F. leucopyrus* was subjected to anti-oxidant assay. It was the DPPH radical scavenging assay. In this method, the ability of the scavenging of DPPH radicals by different concentrations of plant extracts of leaves and bark was measured. Ascorbic acid and BHA were used as standard antioxidants in this assay. The IC₅₀ values for leaves and bark were calculated. IC₅₀ values for DPPH radical scavenging assay were determined as 54 ppm for leaves, 76 ppm for bark, 37 ppm for ascorbic acid and 82 ppm for BHA. When comparing the IC₅₀ values of leaves and bark with the IC₅₀ values of standard antioxidants, *F. leucopyrus* possesses high anti oxidant ability. This gives the assurance for *F. leucopyrus* to act as potential cancer healer. Further to this, the leaves and the bark extracts of *F. leucopyrus* were investigated for phytochemicals using phytochemical screening methods reported in literature. It was found that the plant contains huge amounts of phytochemicals which are alkaloids, saponins, cardiac glycosides, flavanoids, leucoanthocyanin, tannins and polyphenols. These phytochemicals must be responsible for the anti-oxidant potentials of the plant, *F. leucopyrus*.

Keywords: *Fluggea leucopyrus*, antioxidant, DPPH