

**PRELIMINARY PHYTOCHEMICAL SCREENING AND CYTOTOXIC ACTIVITY
EVALUATION OF *DREGEA SCHIMPERI* CLARK (ASPELIDIACEAE) AND
COMBRETUM TANAENSE (COMBRETACEAE) USING BRINE SHRIMP TEST
ASSAY**

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ABSTRACT

Dregea schimperi is a plant from the family of Asclepiadaceae and well documented for use in several diseases in Tanzania including diarrhoea in children, snake bites, indigestion problems, aphrodisiac. *Dregea schimperi* (Bullock) occurs in also in Cameroon and widely in East Africa. Crushed burned stems are mixed with fat and given to children to improve digestion. In Somalia it is considered a poisonous stock causing animals to stand stiffly, shake and diarrhoea. In Kenya the wood is used to make tool handles. *Combretum tanaense* is a shrub from Combretaceae family which is a large family of herbs, shrubs and trees, comprising about 20 genera and 600 species with tropical distribution around the globe and centres of diversity in Africa and Asia. Some *Combretum* species are extensively used in traditional medicine against inflammation, infections, diabetes, malaria, bleeding, diarrhoea and digestive disorders and others as a diuretic .i.e. *combretum tanaense*. The objective of the study was to carry out phytochemical screening and bioactivity studies of the two plants so as to certain the presence of any phytochemicals and their biological activity. The plant materials were collected and dried under shade in the laboratory benches. The ground materials were used for preliminary phytochemical studies and revealed the presence of tannins, saponins, alkaloids, glycosides. Extraction was achieved by sequential maceration using petroleum ether, chloroform and methanol respectively. Aqueous extract was prepared separately. The organic solvent extracts were dried in *vacuo* while the aqueous extracts were lyophilized. The brine shrimp lethality tests were carried out and for *Combretum tanaense* the petroleum ether extracts exhibited moderate cytotoxicity against brine shrimp with LC₅₀ value of 398 µg/ml. while extreme toxicity was recorded with methanolic and dichloromethane methanol extract both have LC₅₀ being less than 1µg/ml. On the other hand moderate toxicity for *Dregea schimperi* were recorded with dichloromethane, sequential and direct methanolic extracts as 444.6µg/ml, 446.8µg/ml and 446.6µg/ml respectively. The varied groups of chemicals reported in these plants suggestively indicate lay scientific evidence for the herb use in various ailments and moderate toxicity against brine shrimp is preliminarily justify the reason to embark on evaluating the herb fractions for bioactivity. Key: Brine shrimp, *Combretum tananaense* and *Dregea schimperi*, Cytotoxicity, bioactivity