

Ethnomedicinal Value, Phytochemical Evaluation, and Pharmacotoxicological Profiling of *Cipadessa baccifera* (Roth) Miq. among Communities of Bokod, Benguet

Heronima D. Sanchez

<https://orcid.org/0000-0003-1327-1515>

herondsanchez@gmail.com

Benguet State University-Bokod Campus
Ambangeg, Daklan, Bokod, Benguet, Philippines

Abstract

Cipadessa baccifera (Roth) Miq was studied for its traditional use, phytochemical properties, and pharmacotoxicological properties. The descriptive qualitative method was used in this study to describe the traditional use of the medicinal plant, and the experimental quantitative method was used to determine the plant's components and capabilities. Assays such as Thin Layer Chromatography (TLC), Chorioallantoic Membrane Assay (CAM), Brine Shrimp Assay, and Zebrafish Embryotoxicity Assay were done to profile the *C. baccifera*. Based on the results, traditionally, the plant parts were used as a treatment for diarrhea, toothache, cough, colds, indigestion, flu symptoms, dysmenorrhea, urinary tract infection, bleeding and swelling of gums, skin rashes, lowering blood sugar, dandruff, natural family planning, animal farm deworming and skin diseases. Its phytochemical contents include anthraquinones, anthrones, alkaloids, flavonoids, fatty acids, triterpenes, steroids, phenols, and essential oils. Furthermore, the CAM vascularity inhibition of *Cipadessa baccifera* concentrations increased with concentration, indicating that the inhibition of vascularity increased with concentration. Similarly, the brine shrimp cytotoxicity test revealed that the number of shrimp deaths increased as the concentration of plant extract increased. Furthermore, the plant extract's calculated LC50 was 434ppm. Microscopic analysis of the zebrafish embryo exposed to the ethanolic extract of the plant sample, on the other hand, revealed malformation in the larvae exhibiting scoliosis at 100ppm extract concentration. Additionally, at plant extract concentrations ranging from 250ppm to 1000ppm, retarded and coagulated embryos were observed. Given the findings of the research study, it is highly recommended that future studies include the ecology and biology of *C. baccifera* in the Philippines to establish a further taxonomic classification of *C. baccifera* endemic to the country.

Keywords: Pharmacotoxicological properties, phytochemical analysis, CAM Assay, Embryotoxicity, Philippines