

ABSTRACT

Many microorganisms are responsible for causing serious diseases of bacterial origin. Development of drug resistance in animal and human pathogens against commonly used antibiotics has necessitated a search for new antimicrobial substances from other sources including plants. The present study reports on the antimicrobial and brine shrimp lethality of *Piliostigma thonningii* leaves collected from two geographical regions, Kenya and Malawi. Both aqueous as well as organic extracts from leaves of *P. thonningii* were screened for antibacterial activity against bacteria of human and veterinary importance using agar well diffusion and evaluated for acute toxicity using brine shrimp bioassay. Except for chloroform extract of *P. thonningii* from Malawi, all of the plant extracts demonstrated remarkable antibacterial activity against the five test bacteria at concentrations tested (250 µg/ml) in agar well diffusion method. In brine shrimp bioassay, all the crude extracts from Kenya and Malawi exhibited varying degrees of toxicity against *Artemia salina* larvae. Nevertheless, further evaluation of the *in vivo* toxicity and *in vivo* antibacterial activity of the crude plant extracts should be carried out.