Abstract

This study evaluated the antimicrobial activity of propolis and honey samples of stingless bee, Dactylurina schimidti collected from 4 colonies in Tana River district along the Kenyan Indian Ocean Coast. Ethanolic extract of Propolis (EEP) was extracted using 70 % ethanol. Pure honey and concentrations of 75 %, 50 % and 25 % honey in distilled water were prepared. These preparations were tested for antimicrobial activity against five different types of bacteria; Pseudomonas aeruginosa, Salmonella typhi, Escherichia coli, Staphylococcus aureus and Bacillus subtilis and two types of fungi; Aspergillus niger and Candida albicans. The disc diffusion method using filter paper discs was employed. Antimicrobial activity was determined as an equivalent of the inhibition zones diameters (in millimeters) after incubation of the cultures at 370C for 24 hours for bacterial species and 48 hours for fungal species. EEP exhibited highest inhibitory effect on Gram positive bacteria compared to all other bacterial and fungal strains. Pure honey had more effect in inhibiting bacterial growth than different dilutions of honey. Pure honey did not inhibit growth of A. Niger and C. albicans. Generally, our findings indicate that propolis from D. schimdti had higher antimicrobial activity against the microbes compared to its honey
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