

**Evaluation of Anti microbial activity of *Osyris lanceolata* (East African Sandalwood)**

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## ABSTRACT

*Osyris lanceolata* (East African Sandalwood) is an evergreen shrub to small tree (1 – 6m) in the family Santalaceae. The species has a relatively wide ecological distribution occurring in Eastern and Southern Africa. In Kenya, it grows in Coast, Eastern, Rift valley, Nyanza and Western provinces.

The aim of this work was to investigate anti microbial activity of the plant. The plant parts used were the roots, stem and stem bark. Polar and non-polar extracts were obtained from each plant part and these were used to screen for anti microbial activity and to obtain HPLC profiles.

Using the disc diffusion technique the extracts were screened against five bacteria and three fungi and the results showed that aqueous methanol extract and water extract had activity against *Staphylococcus aureus*. There was no significance difference in the activity of these extracts on the microorganism ( $p > 0.05$ ). The minimum inhibitory concentrations (MIC) value was a range between 294 – 301  $\mu\text{g/ml}$ . The HPLC profiles displayed very large peak areas of polar constituents in aqueous methanol and water extracts and moderate peak areas of non-polar constituents. While the hexane and dichloromethane extracts displayed only moderate peak areas of non-polar constituents.