



EFFECT OF HOST-BARK EXTRACTS ON SEED GERMINATION IN *TILLANDSIA RECURVATA*, AN EPIPHYTIC BROMELIAD.

ABSTRACT

Tree species are potential hosts for epiphytes; however in some forests epiphytes have a biased distribution among hosts. In a tropical dry forest of Mexico, previous research showed that there are trees with few epiphytes. It is possible that the bark of these hosts contain allelochemicals that influence epiphyte seed germination. The aims of this study were (1) to determine whether hosts with low epiphyte abundance (*Ipomoea murucoides*, *I. pauciflora* and *Lysiloma acapulcense*) would inhibit seed germination of *Tillandsia recurvata* through aqueous and organic bark extracts, (2) to determine whether germination of *T. recurvata* would differ among the hosts with low epiphyte abundance and a host with high epiphyte abundance (*Bursera copallifera*) and (3) to relate the chemical composition of organic bark extracts with inhibition of *T. recurvata* seed germination. Hexanic and dichloromethanic extracts were partially chemically characterized. Total phenolics and flavonoids concentrations of methanolic extracts were analysed. Aqueous and organic bark extracts from hosts with few epiphytes inhibited *T. recurvata* seed germination. Aqueous and dichloromethanic extracts of *B. copallifera* inhibited slightly the germination of *T. recurvata*. There was a positive correlation between concentration of flavonoids and inhibition of seed germination. Results suggest that a combination of compounds may be responsible for affecting the germination of *T. recurvata*. This study demonstrates the chemical effect of aqueous and organic bark extracts from hosts on germination of an epiphytic bromeliad.

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