



ANTIMICROBIAL ACTIVITIES OF SELECTED PLANTS OF FAMILY ASCLEPIADACEAE AND APOCYNACEAE

A Research Presented to The College of Science and Computer Studies Graduate Studies De La Salle University-Dasmariñas City of Dasmariñas, Cavite

> In Partial Fulfilment of the Requirements for the Degree of Master of Science in Biology

KATHRYN IDRISHA K. ALDEA

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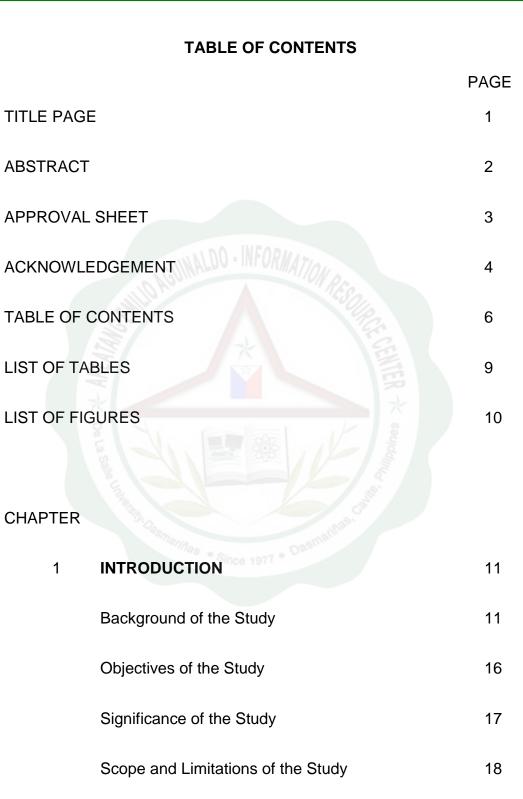
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The crude leaf extracts of selected plants of Family Asclepiadaceae: Calotropis gigantea (Willd) Dryand ex Aiton, Dischidia oiantha Schltr., Hoya sp. and Family Apocynaceae : Nerium oleander L., Plumeria obtusa L, and Allamanda cathartica L. were prepared using 95% ethyl alcohol. The crude extracts were screened for antimicrobial activity using paper disk diffusion, minimum inhibitory concentration and minimum bactericidal concentration against Escherichia coli Migula, Castellani and Chalmers, Pseudomonas aeruginosa Schroter, Bacillus cereus Frankland and Frankland, Staphylococcus aureus Rosenbach, Candida albicans C.P. Robin, Berkhout and Trichophyton sp. The result showed that among selected plants of Family Asclepiadaceae, crude leaf extracts of D. oiantha showed the highest antimicrobial activity on B. cereus followed by the crude leaf extracts of Hoya sp. on B. cereus. The crude leaf extracts of D. oiantha and Hoya sp. were very active in inhibiting the growth of B. cereus, with 29 mm and 26 mm zone of inhibition respectively; both extracts showed a minimum inhibitory concentration of 50 mg/ml and a minimum bactericidal concentration of 100 mg/ml on B. cereus. Among selected plants of Family Apocynaceae, the crude leaf extracts of P. obtusa showed the highest antimicrobial activity against S. aureus. P. obtusa crude leaf extracts were very active in inhibiting the growth of S. aureus with zone inhibition of 26 mm, a minimum inhibitory concentration of 50 mg/ml and minimum bactericidal concentration of 50 mg/ml.



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FIGURE PAGE Disk diffusion of selected crude leaf extracts of Family Asclepiadaceae and Apocynaceae on: A. Escherichia coli Migula, Castellani and Chalmers, B. Pseudomonas aeruginosa Schröter, C. Bacillus cereus Frankland and Frankland, D. Staphylococcus aureus Rosenbach, E. Candida albicans C.P. Robin, Berkhout, F. Trichophyton sp 32