



**TOXICITY SCREENING OF LEAF EXTRACTS OF *Datura arborea* Linn.  
(Angel's Trumpet) AND *Allamanda cathartica* Linn. (Yellow Bell)  
USING BRINE SHRIMP ASSAY**



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### ABSTRACT

The toxicity of *Datura arborea* and *Allamanda cathartica* was studied using Brine Shrimp Assay. This experiment was a randomized controlled trial experiment which uses plant leaf extracts that were diluted in different concentrations (10%, 1%, 0.1% & 0.01%) and then were tested on the Brine shrimp. After 24 hours, the mortality of the brine shrimp for each concentration was accounted for. Each treatment had three trials. The leaf plant extracts of *D. arborea* and *A. cathartica* were both determined to be toxic. The highest concentration that affected the mortality of the brine shrimp from both plants was the 10% concentration. The lethal concentrations ( $LC_{50}$ ) of the two plants were determined in order to figure out at what point does the concentration become poisonous. The  $LC_{50}$  of *D. arborea* was 6.92%. The  $LC_{50}$  of *A. cathartica* was 5.27%. *A. cathartica* is more potent in terms of lethal concentration than *D. arborea*. The potency of *A. cathartica* is due to the allamandin toxin found in the plant. *D. arborea*'s toxicity depends on the combination of toxins of atropine, hyoscyamine, and scopolamine. The mortality of the brine shrimp was significantly affected by the toxicity of the *D. arborea* and *A. cathartica*.



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