

**AN ANALYSIS ON THE TOLERANCE OF THE DIFFERENT
TYPES OF LICHEN TO MULTIPLE ACID RAIN
CONCENTRATIONS**



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ABSTRACT

This study determined the effects of the different concentrations of sulfuric acid to the lichen types crustose and foliose in terms of their onset of degradation, bleaching, thallus deformation, thallus size, and thallus mortality upon exposure of the said lichen types to multiples acid rain concentrations. The study also determined which of the two lichen types is more susceptible to degradation as a result of exposure to different concentrations of sulfuric acid. Lichen samples of each type were obtained from a relatively pollution-free environment, specifically the De La Salle University – Dasmariñas campus, and fumigated with different concentrations of aqueous sulfuric acid with pH 5.67, 4.39 and 2.69. This was done three times a week for five weeks. The above parameters were observed and noted. Although both lichen died after repeated exposure to low pH treatments, the onset of degradation occurred earlier with foliose lichen as compared to the crustose lichen. Also foliose lichen are more susceptible to deformation as compared to the crustose lichen wherein foliose lichen bleach earlier than crustose lichen and at a higher pH. Although both types decrease in size, deform and eventually die at pH 4.39 and below.

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