

The Effects of Different Types of Herbicides Used for Lawn Maintenance on the Dynamics of Weeds in an Urban Environment

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Abstract : This study investigates the effect of aggressive application of herbicide on weed succession in an urban environment in Ile-Ife, Osun State. An inspection of the communities was carried out to identify sites maintained by herbicides (test plots) and those without herbicide history (control plots). Four different experimental plots located at Olasode, Eleweran, Ife City and Parakin within Ile-Ife town were monitored during the study. Comprehensive enumeration and identification of plant populations to species level was carried out on each of the plots and at every visit to determine the direction of succession. Index of similarities was used to determine the relationship in plant species composition between plots treated with herbicide and the untreated plots. The trend of increasing plant species was observed in all the study plots. Low Similarity Index between the treated plots and the control vegetation was observed at all visitations. Low similarity was also observed between the above-ground vegetation and the seed bank in all the plots. The study concluded that the weed population observed from the experimental plots showed an increase in species richness and diversity when the plots were left to recover compared to the control plots.

Keywords : herbicide, index of similarity, population, soil seed bank, succession

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