

Humidity Impact on Insect Infestation in Leather-Bound Science Journal Collection of Rubber Research Institute of Sri Lanka Library

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The Rubber Research Institute of Sri Lanka (RRISL) has been located at Dartonfield of the Kalutara district in the Western province since 1909 and it is an agroforestry area. The Library of RRISL was established in 1953 with the responsibility of providing the information needed for the rubber sector. The objective of the study is to investigate the impact of humidity on insect infestation in the leather-bound science journal collection. The researchers used sticky traps, photographs, and visual observations to collect the data on the insects and excel sheets of the Microsoft office package to process the data and used meteorological data as secondary data. The researchers used Pascal Querner's indoor climate response model for the analysis of the data. The study showed that the high humidity level of the indoor climate of the library caused a high infestation of insects in the leather-bound science journal collection and other printed materials. The mean humidity level suitable for hatching eggs of drugstore beetles was between 60% and 90%. The infestation of drugstore beetles (*Stegobiumpaniceum*) was highlighted. Through visual observation, researchers were able to find larvae stages of some insects with frass and dust inside of the library materials. The conservation plan for the library should be planned under the supervision of the National Library of Sri Lanka collaborating with the National Archives and contacting with the management of the RRISL. Findings suggest that, regular checking and cleaning of library materials with proper methodology, using suitable insect control methods such as fumigation and traditional methods. Through this research, researchers attempt to reveal that the humidity of the library should be controlled to control the infestation of the insects in the library. Moreover, the cleanliness of the library impacts the reduction of insect infestation in the library environment. Also, the contribution of the authorities of the institute is important to implement relevant mechanisms.

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