Abstract

Studied the temporal pattern of all insects attracted to light trap from May 2015 to December 2016 at GKVK, Campus was studied. The results indicated that, both the abundance and richness of insects is high during summer seasons than winter and rainy seasons. Assessed the effect of temperature, relative humidity and rainfall on the species richness and abundance was studied through correlations and multiple regression analysis. Three kinds of analysis were attempted: impact of these parameters on (a) the day of sampling, (b) cumulated over the period of three days, and (c) cumulated over three weeks. Correlation studies indicated that the rainfall and relative humidity over three days before sampling affected the insect diversity significantly and the total insect activity (as reflected by abundance) was affected only by rainfall over three days before sampling. Temperature did not appear to impact on the insect activity and diversity. However, multiple regression analysis showed that temperature cumulated over three week period negatively impacted the species richness and diversity though the abundance was not affected. The temperature on the day of sampling or cumulated over three day period did not have any direct impact. Thus, the study demonstrates that the temperature affect insect activity over long term than short term. Other parameters did not show any direct effect on diversity and abundance of insects. In other words, the insect activity may be reduced by increasing temperatures of the globe - a concern in the context of climate change. This effect however appears to be confounded when analyzed with other parameters.