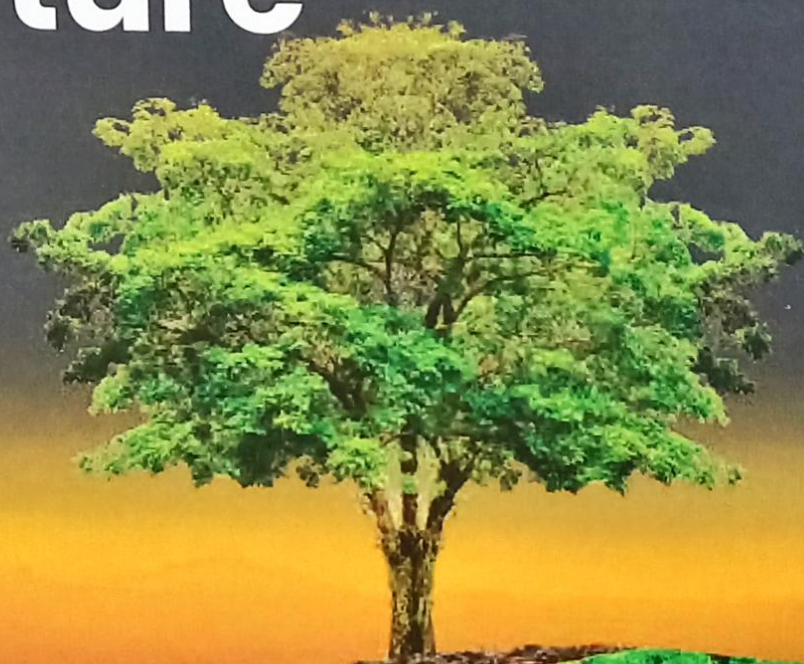




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Life Science For A Sustainable Future



General Editor

Meera George, Ph.D



RPH

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**Impact of herbicide (Altrazine) on the reproductive
biology of *Bilobella braunerae*
(Collembola: Neanuridae)**

NISHA THOMAS

Abstract :

Soil collembolans plays decisive role to boost up soil fertility. Collembola is a group that functions as a bio- indicator of the soil condition. Unmethodical use of herbicide for controlling undesirable vegetation in rubber plantation has harmful effects on the fecundity of Collembolans. Laboratory toxicity tests were carried out, to evaluate the effects of Altrazine (Herbicide) on fecundity and moulting intervals of an edaphic collembolan *Bilobella braunerae* (Collembola) grown in sub lethal concentration of agrochemical. The safe and sublethal concentration of agrochemicals was very low indicating high vulnerability of these collembolans to altrazine. The Collembola feeding on leaves of jackfruit containing sub lethal concentration agrochemical exhibited trends of increased days in moulting and decreased fecundity rates. Both moulting and fecundity rates were significantly affected by the herbicide presented as food to the collembola. Even short duration exposure to agrochemicals treated food for 24 or 72 hours, was found to delay the egg-laying and decrease the fecundity of the species. It is concluded that population responses and reproductive sensitivity in non-target soil microarthropods, are potential eco-