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Sub-lethal ill effects of some selected pesticides on *Cyphoderus javanus* in laboratory experiments

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Abstract :

Soil is regarded as a pool of different soil faunal biodiversity and provides ecosystem services crucial for the maintenance and development of life. Soil collembolans are predominant microarthropods seen in soils rich in organic residues and under decaying barks and logs. *Cyphoderus javanus* are commonly found heteropagus detritivore species and a suitable biomarker species for ecotoxicological studies. Previous investigations on various pesticides have been reported on lethal concentration but the knowledge on sublethal concentration ill effects are remain unclear. In the present study, the lethal and sub-lethal concentrations of selected agrochemicals (Cyfluthrin, Oxadiargyl and Fytran) were studied under laboratory conditions and results showed that that may adversely affect the life-history parameters of *Cyphoderus javanus*. The sampling of studied collembolan *Cyphoderus javanus* were conducted every month from June 2020 to May 2021. Fecundity and bioassay studies were analyzed by using standard procedures. The current study results revealed that fecundity rates, incubation period, survival success, juvenile hatching and life-span of *Cyphoderus javanus* were noticed to