

shed light on the presence of bioactive compounds in seaweeds that is important for anti-cancer therapy. Further studies will be focused on cytotoxic effect and anti-cancer properties of selected seaweed species on an animal model.

Keywords: Seaweed, Cytotoxicity, Anti-cancer, *in-vitro*

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Biological Sciences

Effects of kerosene and citronella oil on the worker ants of *Tetraponera rufonigra* Jerdon (Formicidae, Pseudomyrmecinae), a medically important ant species, in tropical Asia

R. K. S. Dias and K. S. S. D. Fernando*

*Department of Zoology and Environmental Management,
Faculty of Science, University of Kelaniya, Sri Lanka
dinushifernando6@gmail.com*

Serious medical conditions due to sudden outbreaks of *Tetraponera rufonigra* and increase of its stings in urban localities were reported recently in Sri Lanka. Control methods appropriate for suppressing *T. rufonigra* workers in such situations were investigated using kerosene or citronella oil in the laboratory. Toxicity tests were conducted with appropriate control experiments and in three replicates, by applying 10 μ l, 12 μ l, 14 μ l, 16 μ l, 18 μ l and 20 μ l of citronella oil on dorsal prothorax of each of the acclimatized ten workers used in each treatment. Number of dead ants observed with each treatment was recorded after 10 minutes of each application. Probit analysis performed with the percentage mortality of workers resulted 6.38 mg/mg body weight of ant of citronella oil as LD₉₉ of the workers.

For field simulating experiments, citronella oil containing (100%) sprayer bottle and a common hand sprayer were bought and spray volume of each sprayer was calculated. Increasing volumes 0.6 ml, 1.2 ml, 1.8 ml, 2.4 ml and 3.0 ml of kerosene or 0.64 ml, 1.28 ml, 2.56 ml, 3.84 ml and 5.18 ml citronella oil based on the calculated spray volumes, were applied separately to ten acclimatized workers in a plastic bottle in three replicates; time period until ten worker ants died since spraying was recorded for each treatment. Appropriate control set up was maintained for each treatment. Spraying of 3.0 ml of kerosene or 5.2 ml of citronella oil, as minimum volumes, is recommended for the temporary suppression of ten worker ants.

Keywords: Arboreal ants, Kerosene, Citronella oil, Medically important ants, Ant control

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