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Insect toxicity and repellent activity of phytochemicals from flea killer, *Boenninghausenia albiflora* against black garden ant, *Lasius niger* of Pakistan

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A study was conducted to evaluate the insecticidal activity of essential oils obtained from root, stem and leaves of *Boenninghausenia albiflora* (Sapindales: *Rutaceae*) against black garden ant *Lasius Niger* L. (Hymenoptera: *Formicidae*). The major compounds in these essential oils were identified using gas chromatography-mass spectrometry and their insecticidal activity was tested at three concentrations i.e. 1, 5 and 10% in ethanol. All essential oils showed similar insecticidal and repellent activity at each concentration but significantly different at $p \leq 0.05$ from controls with LC_{50}=12.35 µl, while dose dependent effect was significant with R_2=0.803. It can be concluded that the three essential oils in this study have both insecticidal as well as repellent effect.

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