PHYTOCHEMICAL SCREENING AND LARVICIDAL ACTIVITY OF *Murraya koenigii* LEAVES EXTRACTS AGAINST THE MOSQUITOES LARVAE

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ABSTRACT

PHYTOCHEMICAL SCREENING AND LARVICIDAL ACTIVITY OF *Murraya koenigii* LEAVES EXTRACTS AGAINST THE MOSQUITOES LARVAE

Murraya koenigii, known as curry leaf is popular in traditional medication to cure many disease. The Green House effect increase the world temperature becoming more optimum for mosquito breeding. Exploring new approaches to prevent this situation make this study important. Phytohemical screening of the extracts was conducted to determine the active compounds using hexane and methanol solvent. The LC_{50} and LT_{50} value of *M. koenigii* leaves of hexane and methanol extract against mosquitoes larvae was determined. This study was comprised of several methods namely collection of leaves of *M. koenigii*, extraction *M. koenigii* leaves with hexane and methanol sequentially, phytochemical test and larvicidal bioassay on third instar larvae using three different concentration (250, 500 and 750 ppm). Phytochemical screening revealed the presence of alkaloids, saponins, tannins, flavonoids and glycoside for methanol extract while negative result for hexane. Larvicidal bioassay revealed that methanol crude gave lowest LC_{50} and LT_{50} values of 250ppm with 36 hours. Hexane crude extract gave the LC_{50} and LT_{50} with 450 ppm and 36 hours respectively. The plants extract showed larvicidal activity against mosquito larvae at 0.05 level of significance in term of concentration for hexane and duration for methanol. High larvicidal activity of *M. koenigii* leaves is supported by the presence of phytochemicals which show synergestic effects in terms of larvicidal action to mosquito larvae. This study show that the *M. koenigii* can be an effective mosquito larvicides.