Limonoids as Larvicidal Components against Mosquito Larvae (*Aedes aegypti* Linn.)

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The study focussed on four limonoids (calodendrolide, harrisonin, pedonin and pyroangolensolide) as larvicidal components against mosquito 2nd instar larvae of the species *Aedes aegypti* Linn. *senso stricto*. Since pyroangolensolide is close to calodendrolide in structure, it was synthesized through reduction of calodendrolide with chromium(II) chloride in acetone. Harrisonin and pedonin were extracted with cold methanol from the root bark of *Harrisonia abyssinica* while calodendrolide was extracted with the same solvent from the root bark of *Calodendrum capense*. The structure of pyroangolensolide was elucidated using physical and spectroscopic techniques. 25, 50, 75, and 100 μM of each compound were tested against the mosquito larvae. Calodendrolide was the most toxic since 100% mortality was registered at all concentrations, while pyroangolensolide showed 100% mortality up to 50 μM and for contents of 25 μM, a mortality of 70% was registered. As a result of this toxicity, lower concentrations (5, 10 and 15 μM) were tested for both calodendrolide and pyroangolensolide. Toxicity of harrisonin and pedonin was lower. The relative toxicity was in the order: calodendrolide > pyroangolensolide > harrisonin > pedonin with LC_{50} values of 13.2, 16.6, 28.1 and 59.2 μM, respectively.

Key words: Aedes aegypti, Limonoids, 2nd Instar Larvae