Abir Gad, Entomol Ornithol Herpetol 2013, 2:2
http://dx.doi.org/10.4172/2161-0983.S1.004

OMICS Group Conferences
Accelerating Scientific Discovery

International Symposia on
Entomology

September 04, 2013 Holiday Inn Orlando International Airport, Orlando, FL, USA

Laboratory evaluation of some essential oils against immature stages of the filarial mosquito *Culex quinquefasciatus* (Diptera:Culicidae)

Abir Gad
Egypt

The larvicidal activity of four commercially available essential oils were tested on the 4th larval instar of *Culex quinquefasciatus* in the laboratory. These were the essential oils of *Cinnamomum osmophloeum* (cinnamon), *Matricharia chamomella* (chamomell), *Nigella sativa* (nigela) and *Sesamum indicum* (sesame) oils. The toxicity index, LC_{50} values, LC_{50} values were 26, 32, 82 and 26 ppm for cinnamon, chamomell, nigela and sesame oils, respectively after 48 hrs from treatment. All tested oils, at high concentrations, had high larvicidal toxicity. Furthermore, the increase of concentrations was directly proportional to reduction in pupation rates and adult emergence. Significant decrease in pupation rate was observed by cinnamon oil at 65 ppm. Adult emergence was 100% inhibited in cinnamon oil was used, especially at concentrations 50 and 6were5 ppm. The number of eggs/ female and eggs hatchability were also decreased by the application of all concentration of the tested oils. In addition, the tested plant oils exhibited various morphological abnormalities on larvae, pupae and adult stages The result from this study demonstrated that essential oil of cinnamon was the most potent oil and was the major cause of malformation of both larval and pupal stages.

abir_gad@yahoo.com