Phenolic Content, Antioxidant Potential and Aedes Aegyptii Ecological Friend Larvicidal Activity of Some Selected Egyptian Plants.

Nature is the ever evolving source for compounds of medicinal importance, polyphenols among these compounds constitute ubiquitous group with wide range of physiological activities i.e. antioxidant, immune-stimulant, antitumor and antiparasitic. Yellow fever and dengue fever are mosquito-borne infectious diseases transmitted by bites of Aedes aegyptii, the presence of yellow fever in sub-Sahara of Africa and dengue fever in Saudi Arabia are threats to Egypt with the re-emerging of Aedes aegyptii in Aswan and Toshka districts and hence, larvae control is more feasible than flying adults' control. This work was conducted targeting estimation of the relative levels of total phenolic content, antioxidant potential and larvicidal activity of one hundred and ten selected Egyptian plant species. The highest total phenolic contents were estimated in aqueous extracts of Coronilla scorpioides L., Forsskaolea tenacissima L., Crataegus sinaica Boiss., Pistacia khinjuk Boiss. and Loranthus acacia Benth.; they were 916.70±4.80, 813.70 ±4.16, 744.90±4.93, 549.00 ±3.93 and 460.80±4.02 mg% while those of methanol extracts were estimated in Coronilla scorpioides L., Forsskaolea tenacissima L., Crataegus sinaica Boiss., Loranthus acacia Benth. and Pistacia khinjuk Boiss.; they were 915.60±4.86, 664.60±4.16, 659.30±4.80, 590.80±4.49 and 588.00±3.85 mg% respectively. Investigation of the antioxidant potential revealed that the most potent plants were Coronilla scorpioides L., Forsskaolea tenacissima L., Crataegus sinaica Boiss., Pistacia khinjuk Boiss. and Loranthus acacia Benth. with calculated values of 454.80±4.83, 418.40±4.16, 399.10±4.90, 342.50±2.72 and 239.70 ±2.91% for aqueous extracts and 452.90±4.94, 389.60 ±4.60, 378.48±3.84, 352.30 ±3.06 and 346.50±2.98% for methanol extracts respectively while screening of