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Biolarvacidal and Antioxidant Activity of *Cyclamen parviflorum*

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Aim of the study: Plants and plant products are rich antioxidant sources and epidemiological studies have revealed the relationship between plant antioxidants, chronic and oxidative diseases. *Cyclamen* genus from the Primulaceae family are using as medical treatment and in folk medicine. The aim of this study was to investigated the antioxidant, biolarvacidal activity of *Cyclamen parviflorum* tubers and leaves. Obtained the findings from this study can increase the overall value of the medical potential of the plant.

Material and Methods: Leaves and tubers of *C. parviflorum* were collected from their habitats in Trabzon, Turkey, in May-June 2015, identified from the book of Flora of Turkey. Each parts (tubers and leaves) were dried at the shadow, room temperature and low humidity. The dried samples are broken up by blender so as to separate small pieces. 10 g of sample was taken and was added to 250 ml of erlenmeyer, then ethanol was added and erlenmeyer's mouth was closed. Erlenmeyers were put in shaker water bath at 49 °C and for 6h, then mixture of plant with ethanol were filtered with Whatmann No:1 paper. This shaking and filtration was repeated three times. The alcohol separated with Rotary evaporator at 48-49 °C then the water drawn out with freeze-dryer at -54 °C. ABTS radical cation scavenging activity, determination of antioxidant activity by β–carotene-linoleic acid, determination of total phenolic contents, determination of total flavonoid contents and biolarvacidal activity against *Musca domestica* and *Culex pipiens* experiments were performed on *C. parviflorum* extract.

Results: In all experiments leaves was found to have higher activity than tubers of *C. parviflorum*. In biolarvacidal activity against *Cx. pipiens*, we found LC_{50} and LC_{90} values of extract were 173.44 and 291.50 ppm and against *M. domestica*, we found have no biolarvacidal activity. This is the first study to report on antioxidant and biolarvacidal activity of the extract of *C. parviflorum* against *Cx. pipiens* and *M. domestica*.

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Keywords: *Cyclamen parviflorum*, Antioxidant Activity, Biolarvacidal Potential Effect, *Musca domestica*, *Culex pipiens.*