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Analysis of essential oil of *Capparis spinosa* L. leaves and interaction between *Pieris brassicae* L. (Lepidopteran) which attack caper and natural enemy *Cotesia glomerata* (L.)

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Abstract : The investigation was carried out during 2015 - 2016 at the laboratories of Plant Protection Dep., Faculty of Agriculture, Damascus University. the constituents of essential oil extracted from leaves of *Capparis spinosa* L. Capparidaceae family, growing wild in Damascus, Syria,. The essential oil were prepared from dried and powdered leaves with steam distillation .The essential oil were analyzed by gas chromatography coupled with mass spectrometry (GC-MS). A total of 12 components were identified. The major constituents of the *C. spinosa* leaves oil was Thymol, Octanoic acid, methyl isothiocyanate and 2-hexenal. This is the first report of *Pieris brassicae* L. feed on *Capparis spinosa* plants growing wild In Syria. addition, the results indicated that the natural enemy *Cotesia glomerata* (L.) was able to suppressed the *P. brassicae*, where, the parasitism rate varied from 84.25% to 87.54%. Finally, the results suggest that *Pieris brassicae* L. not harmful to *C. spinosa* plants growing wild in Damascus, Syria.

Key words: *Capparis spinosa* L., GC/MS, *P. brassicae*, *C. glomerata*.

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