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The Phenolic Chemistry of *Lappula squarrosa*(Retz.) Dumort., *L. barbata* (Bieb.) Gurke and *L. microcarpa*(Ledeb.) Gurke Species

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Abstract: The aim of this research was to study the phenolic chemistry of *Lappula squarrosa* (Retz.) Dumort., *L. barbata* (Bieb.) Gurke and *L. microcarpa* (Ledeb.) Gurke. The specimens were sorted into three groups according to their general morphological features. Nine morphological characters were determined in each group and measured. According to Fisher's test, four of these characters which belong to fruit morphology had a difference of 95 %. Each group was diagnosed and were found to belong to *L. squarrosa*, *L. barbata* and *L. microcarpa*. The specimens were hydrolyzed in hydrochloric acid and were extracted with isoamyl alcohol, ethanol and ethylacetate. The extracts were analyzed by paper chromatography. It was found that phenolics from fruits can be important characters in the distinction of these species and good evidence was obtained to determine the relationships between these species.

Key Words: *Lappula*, Chemotaxonomy, Phenolic substances, Boraginaceae, Turkey.

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