

Phenolic Profile by LC-MS of *Onopordum polycephalum* BOISS. and *Onopordum carduchorum* BORNM. ET BEAUVERD

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The Asteraceae (Compositae) family is represented by 143 genera and approximately 1484 species in Turkey. *Onopordum* L. is a genus of about 60 species of thistles belonging to the family Asteraceae, native to Europe (mainly the Mediterranean region), northern Africa, The Canary Islands, the Caucasus and South-West and Central Asia.¹ In Turkey, the genus comprises 19 species, including 2 subspecies, a total 20 taxa. Also comprise 5 endemic species and have 26,31% range of endemic species.² *Onopordum* species are using as folk medicine, as food and as animal food in Turkey. For folk medicine; the aerial part of *Onopordum* species are using to treatment of hemoroid and cancer.³ In a literature survey, it can be seen that there is not any report on the chemical properties of *Onopordum polycephalum* and *O. Carduchorum*. Therefore the aim of the current study is to determine the phenolic and flavonoid content of *O. polycephalum* and *O. carduchorum* methanol extracts by UHPLC-ESI-MS/MS for quantitative and qualitative purposes.

In five flavonoids, Quercetin, rutin and naringenin were detected and quantified. Besides that five phenolic acids (protocatechuic acid, rosmarinic acid, p-coumaric acid, caffeic acid and chlorogenic acid) were determined in these two *Onopordum* species. In the methanolic extract of two *Onopordum* species, chlorogenic acid was found to be the most abundant flavonoid compound in studied the phenolic compounds (3.760 and 2.970 mg/g for *O. polycephalum* and *O. carduchorum*, repectively). Additionally, rosmarinic and cafeic acids were found to be the most abundant phenolic acids in *O. polycephalum*.

Kaynaklar:

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