

Ethnopharmacology, Phytochemical and Antioxidant Study of *Urtica Dioica* L. in Hodna Region (Northeast of Algeria)

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Abstract—This work aims to make an ethnopharmacological, phytochemical and antioxidant study of the methanolic extract and the flavonoid fractions of the aerial part of *Urtica dioica* L. from Hodna région. The results of the ethnopharmacological survey showed that *U. dioica* is a medicinal plant with multiple uses and more particularly in the treatment of inflammatory diseases. Leaves are the most used part. The majority of remedies are prepared as a decoction. Phytochemical tests have revealed polyphenols, flavonoids, tannins, leucoanthocyanins, saponosides and traces of quinons. The total phenol content is variable and the chloroformic fraction has the highest content however the crude methanolic extract has the highest content of flavonoids. Qualitative analysis of the crude methanolic extract and the three flavonoid fractions by TLC revealed the presence of phenolic acids, anthocyanidin-3,5-diglycosides, anthocyanidin-3-glycosides, flavones, isoflavones, Flavonones, flavonols and aurones. The antioxidant activity study by the DPPH method showed that the extract and the different fractions have a very important anti-free radical activity to will be confirmed the traditional uses of plant in this region as a good anti-inflammatory.

Keywords— *Urtica dioica*, Ethnopharmacological. Methanolic extract, Flavonoid fractions, Phytochemical composition, antioxidant activity.

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