**PLANT BIODIVERSITY AND ETHNOBOTANICAL PROPERTIES OF VARIOUS PLANTS IN AMEDI (DUHOK-NORTHERN IRAQ)**

**(M.Sc. THESIS)**

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# ABSTRACT

This study was conducted at Amedi District (Duhok / Northern Iraq) to investigate flora, life forms, geographical distributions an ethnobotanical property of vascular plants. Settlement centre of Amedi is a plain and the district totally has an area of 2723,7 km2. It is located in the far north of Iraq also is in the north-eastern part of Dohuk province, just about 50 km away according to air distance. The Study area is situated between the latitudes (37º07'30.0" & 37º00'50.4" N) and (43º32'40.0" & 43º32'55.9" E) longitudes, with an altitude between 1000-1700 meters.

The complicated topography and habitat heterogeneity, in addition to influencing the plain by cold semi-arid climate and precipitation regime of Mediterranean climate type caused variable environmental formations, landscapes and distinctive flora which included by diverse vegetation types including mountain and riparian forests, and steppe grasslands. Local inhabitants directed us to describe plant taxa that are traditionally used as medicinal, edible, forage, ornamental and poisonous plants. Plant samples were collected from the district including 21 villages.

In the present study, 294 plant taxa belonging to 182 genera and 67 families were identified and geolocated. Of the total taxa, 247 are herbaceous (84.0 %), and 20 trees (6.8%), 25shrubs (8.5%), 1 fern (0.3%) and one parasitic taxon (0.3%). The life form spectrum was determined using Raunkiaerʼs classification system and compared with the normal spectrum.

The families with the greatest number of species were *Asteraceae* with 29 plant taxa (18.4%), *Fabaceae* with 26 plant taxa (16.5%), *Brassicaceae* with 18 plant taxa (11.4%), *Lamiaceae* with17plant taxa (10.8%), *Poaceae* and *Rosaceae* with 13 plant taxa (8.2%) for each, *Apiaceae* with12 plant taxa (7.6%), *Boraginaceae* with 11 plant taxa (7.0%), *Ranunculaceae* and *Scrophulariaceae* with 9 plant taxa (5.7%) for each.

The results revealed that the life-form spectrum in the present study was characteristic of a cold semi-arid climate region and dominated by Therophytes (40.4%), Hemicryptophytes (29.2%), Phanerophyte (15.3%), Cryptophyte-Geophyte (10.5%) and Chamaephyte (4.0%). Results showed that the ratios of Therophytes, Hemicryptophytes and Cryptophytes (Geophytes) were more than the normal spectrum, while the ratios of Phanerophytes and Chamaephytes were less than the normal spectrum.

In geographical distribution, Irano-Turanian phytogeographical region was the most frequency with the ratio 50.6%, (149 plant taxa).

**Keywords:** Plant biodiversity, ethnobotany, medicinal, edible, ornamental, poisonous, Amedi, Northern Iraq.

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