



زانكۆی سه‌لاحه‌دین - هه‌ولێر
Salahaddin University-Erbil

A Survey of Flowering Plants in Safeen Mountain during Spring Season

Research Project

Submitted to the Department of (Biology) in partial fulfilment of the requirements
for the degree of BSc. in (Plant Taxonomy)

Prepared By:

Payam Adeeb Muhammad

Supervised By:

Dr.Shilan A.Husain

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Supervisor Certification

This research project was prepared under our supervision in the Department of Biology, college of Education Salahaddin University-Erbil and hereby recommend it to be accepted in partial fulfillment of the requirements for the degree of **BSc**. In Biology-Plant Taxonomy.

Signature

Supervisor: Dr.Shilan A.Husain

Date: / 4 /2024

Chair certification

In view of the available recommendation, I am forwarding this research project for debate by the examining committee.

Signature:

Name: Prof. Dr. Sevan O. Majed

Chairman of biology department

Date: / 4 / 2024

DEDICATION

I dedicate this work to:

To my father and my mother for their constant support and unconditional love, my beloved my dear brother and sisters. To all my family, the symbol of love and giving

To my lovely supervisor, Shilan Abdulaziz Husain. She helped me a lot in my research. I will never forget her help and support. We are family and we work together, thanks to my family

Payam

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Summary

In this study, a survey of flowering plants has been done a survey of the flowering plants has been done in Safin Mountain which is located to the northeast of Erbil province. In this study (77) genera have been collected during two scientific exclusion in which they belong to (28) plant families, most of these collected plants were herbs and annual, (22) families belong to the dicotyledon plants and (6) families were monocotyledon plants. A large number of the genera that have been identified belong to Asteraceae and Fabaceae families. The other family's genera numbers were between 1- 5.

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1-INTRODUCTION

Plant taxonomy is a branch of the sciences that is concerned with describing identifying, categorizing, and naming plants, and it is the most useful classification system, If we go through the history of plant taxonomy science we can understand how people were in need to organize and classify everything in their surroundings according to their needs and uses. Gradually and with the increase in knowledge, materials, ways, and techniques of examinations and analyses, this branch of science developed gradually. Several different systems are used for plant arrangement, with the most familiar being the kingdom, division, class, order, family, genus, and species. The plant is one of the major forms of life on earth. It can produce its food but cannot move about. Plants have well-organized structures. They are beautiful and they determine local climates and are used as live fences. They phyto remediation and cool our environment. They provide us with oxygen, medicines, fuel, timber, recreation, industrial products; preservatives, and pesticides in addition to all the three necessities of life: food, clothing, and shelter. They purify the air and water bodies. It is therefore impossible to talk about life without plants because of their importance to the balance of nature. However, people have altered and often degraded their environment, though it has been taking place so gradually that its effects have not been drastically felt. Despite the enormous benefits of plants to humanity, they are disappearing at alarming rates. The reasons for this loss are many and include many anthropogenic activities. It is therefore quite imperative to ensure their effective conservation.(Rouhan and Gaudeul, 2021) .There are a few studies related to the survey of plants in Iraq because the detection of each plant needs a long time including Faris's study on Piramagron mountain plants, the study of vascular plants in the Gomaspan region by Ahmed in (2010), the study of vascular plants in the Hawraman region by Ahmad in (2013), and the survey of vascular plants of Makok mountain by sdiq in (2023).

Kurdistan region contains different kinds of plants that are grown in because of the different suitable environments factors that help to grow these plants in this area, the present study covers the flowering plants of Safeen Mountain which is located about 50 Km northeast of Erbil, at latitude 36° 22' 24" and longitude 44° 18' 25", reaching an altitude of about 1000 m., with average temperatures ranging from 0 to 25°C. The flora of Safeen Mountain reflects the geographical position of the mountains, highland plains, and valleys. Consequently, the biogeography is characterized by a mantle of different types of plants: medium-sized trees, such as *Crataegus* and *Quercus* species, and a wide variety of woody bushes, shrubs, and grass are also present in this mountain, A great variety of plants grow on the mountains of Iraqi-Kurdistan that for the most part provide pasturage for herds of goats and sheep; however, many species are also carefully collected, mostly by women, for their medicinal properties.(Al-Zubaidi et al., 2014, Al-Douri, 2014). Indeed, Kurdistan people' s knowledge about medicinal plants is based on hundreds of years of beliefs, observations, and a rich medicinal history. In fact, as in other emerging countries, traditional herbal medicine is still in Kurdistan the first choice for primary cures of many diseases, especially by people who cannot buy modern expensive synthetic drugs; moreover, in remote villages, such as in those on Safeen Mountain, decoctions, potions, and oils from the local herbal tradition have provided the only medicinal remedies for centuries, up to today. Therefore, the trivial names of medicinal plants and the beliefs in their beneficial properties are still part of the cultural heritage of any family in Kurdistan, which are orally transmitted through generations during this process many kinds of plants are observed that have medical importance such as *Verbascum*, the flowers of it used for the treatment of disorders of the respiratory tract, skin also *Astragalus* used to make the natural gum tragacanth.(Abdullah et al., 2016, Al-Douri, 2014).

2- MATERIALS AND METHODS

In this study, scientific excursions (trips) were done to the different locations of Safeen Mountain during the year 2024. The identification process has been done depending on the flora of Iraq (Guest and Townsend, 1966), (Townsend and Guest, 1974),(Townsend et al., 1985), (Townsend and Guest, 1985),(Townsend et al., 1985) ,(Ghazanfar et al., 2013), (Townsend, 2016) and (Ali et al., 2019).

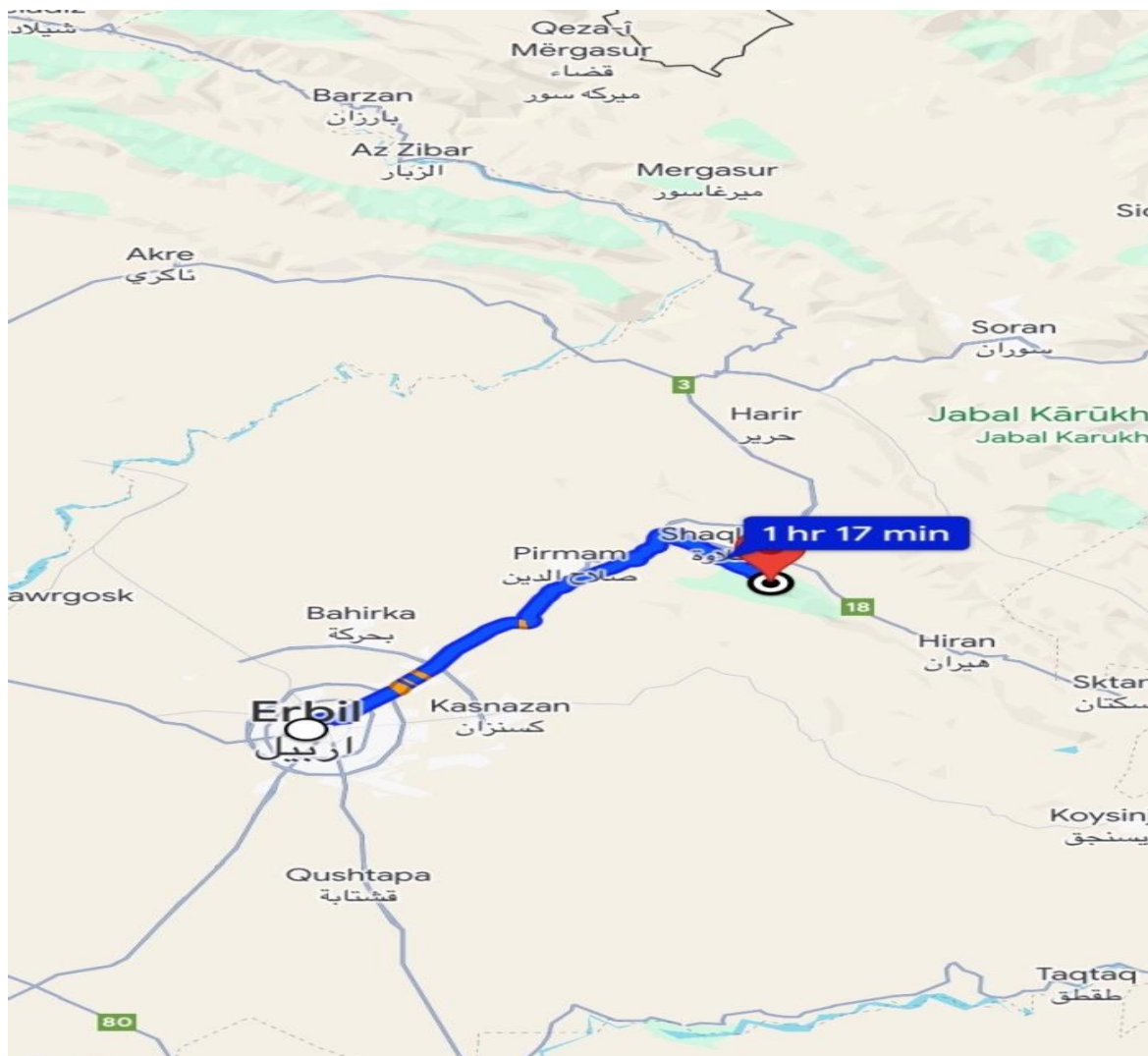


Figure (1): Location of Safeen Mountain from Erbil Province

3- Results

In this study (77) genera are collected which belong to (28) families as the following:

1. Amaryllidaceae

Allium

2. Apiaceae

Daucus

Scandix

3. Araceae

Biarum

4. Asteraceae

Silybum

Echinops

Crepis

Senecio

Crupina

Gandlia

Chardinia

Sonchus

Notobasis

Crupina

Calendula

Chamaemelum

5. Boraginaceae

Anchusa

Onosma

Echium

6. Brassicaceae

Aetheonima

Sysmbrium

Biscuttela

Brassica

Erucaria

7. Crassulaceae

Rosularia

Sedum

8. Caryophyllaceae

Vaccaria

Silene

9. Capripholiaceae

Cephalaria

10. Cistaceae

Helianthemum

11. Euphorbiaceae

Euphorbia

12. Fabaceae

Astragalus

Vicia

Trigonella

Trifolium

Prosopis

Scorpiurus

Onobrychis

Medicago

Pisum

Lathyrus

Onopordum

12. Geraniaceae

Erodium

Geranium

13. Iridaceae

Iris

14. Lamiaceae

Lamium

Marrubium

Salvia

Lallemancia

Teuerium

15. Liliaceae

Tulip

Gagea

Muscari

Ornithogalum

17. Linaceae

Linum

18. Orchidaceae

Ophrys

Orchis

19. Papaveraceae

Papaver

Fumaria

20. Plantaginaceae

Plantago

21. Poaceae

Aegilops

Poa

Hordium

Polypogon

Lolium

Phalaris

22. Polygonaceae

Rumex

Polygonum

23. Phagaceae

Quercus

24. Ranunculaceae

Adonis

Anemone

Ranunculus

25. Rosaceae

Prunus

Poterium

Crataegus

26. Rubiaceae

Galium

27- Salicaceae

Salix

28- Juglandaceae

Juglans

4-DISCUSSION

This study was done in Safeen Mountain which is located in the north-east of Erbil city. The favorable weather helps to present different kinds of flowering plants, interesting biodiversity, and a rich ethnobotanical tradition exists on Safeen Mountain in Kurdistan; this favorable combination has given rise to a widely practiced folkloric medicine based on local plants, during this scientific exclusion (77) genera were collected, and these genera belong to (28) plant families. Most of the collected plants are herbs with the presence of cultivated plants and trees in the area results showed that (22) of the collected plants are dicotyledon plants which have tap roots, and (6) families belong to the Monocotyledon plants which have tubers or adventitious roots. The number of plants is different between the families, some families have (11-12) genera such as Asteraceae and Fabaceae while the remaining families have between 1 to 6 genera.

5- CONCLUSIONS

- 1- (77) Genera were collected during scientific exclusion in this region.
- 2- Most of the collected plants were herbaceous.
- 3- (22) Families were belonging to dicotyledon plants.
- 4- (6) Families were monocotyledon plants.
- 5- The commonly diagnosed genera were backed to Asteraceae, and Fabaceae, families.

6- RECOMMENDATIONS:

- 1-Made more surveying studies in different Kurdistan regions during all seasons of the year.
- 2- Protection the rare and threaten by extinction species of the plant families.

7-References

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Papaver



Malva



Onosma



Trifolium



Gagea

Plate (1): some of the specimens collected during this research



Vaccaria



Euphorbia



Anagalis



Calendula



Anchusa

Plate (2): some of the specimens collected during this research.



Medicag



Lolium



Crepis



Galium



Erodium

Plate (3) some of the specimens collected during this research.