



AENSI Journals

Journal of Applied Science and Agriculture

ISSN 1816-9112

Journal home page: www.aensiweb.com/jasa/index.html



## Introduction to the floristic of Kaftar Lake basin in Eghlid (Fars province)

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### ARTICLE INFO

#### Article history:

Received 20 January 2014

Received in revised form 16

15 April 2014

Accepted 25 April 2014

Available online 15 May 2014

#### Keywords:

Florestic, Kaftar Lake, Eghlid,

Compositae, Graminae

### ABSTRACT

Kaftar Lake with an area of 5500 hectares is located in south of Eghlid in Fars province. The highest of its height are 2310 meters. Average annual precipitation in Namdan basin and Kaftar Lake reaches to 375 and 400 mm respectively. From the view point of plant geographical distribution, plant of this region include Irano-Turanian region. Plant communities of Kaftar lake basin with an area 15343 have 99 species. Flora of this region includes 99 species that belong to 81 genera and 34 Families. Among the 99 species of this region 23 species are hydrophytes. The important and dominate Families are respectively Composite with 17 species (17%) and Graminae with 14 species (14%). Life forms of the plant species of this region include Hemicryptophytes, Chamaephytes and Phanerophyts. The dominates life forms of this region is Hemicryptophytes.

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**To Cite This Article:** Sareh Rahimi, Sadegh Kazemi, Hamid Rahimi, Maryam Ahmadi, Nayyereh Hoseyni Introduction to the floristic of Kaftar Lake basin in Eghlid. (Fars province), *J. Appl. Sci. & Agric.*, 9(4): 2303-2306, 2014

## INTRODUCTION

Environmental importance of the preservation of plants, soil, water, air stylized, providing food and habitat for humans and wildlife and deserts and desert landscaping and restoration is quite clear. According to the functional aspects of botanicals and essential to be familiar with their particular uses and requirements. (Duke, 1989) As a result, the importance of understanding the characteristics of plants and their preservation is inevitable. The more familiar with the land and the importance of plants and their role in this country that need comprehensive information on how to expand their distribution, number of families, genera and species, they said. To determine the vegetation of access assess the floristic list of important and useful information purposes In order to determine the biodiversity of our dear country will be available to researchers (Hertwig, 1966). According to the practical aspects of their knowledge of plants and their familiarity with specific uses is necessary. As a result, the importance of understanding the characteristics of plants and their preservation is inevitable. (Grieve, 1980) Lake in the internal environment of national wealth is considered important and is of particular importance. The effect of moisture in the air and create stylized lakes in the local climate, the development of vegetation around the lake and provide suitable conditions for the species of animal and plant life of the chain are related to human life. Lake in the mountainous region geographically Kaftar growth Irano - Turanian is located. Kaftar Lake due to local climatic conditions and the impact on natural systems in the lake catchment area of environmental protection have an important role in the preservation of life and vegetation, plus Vegetative plants attract migratory birds and fish in the lake to play. ( Yarmohammadi and Tabiee, 2007) The more familiar with the area and the importance of plants and their role needs to be comprehensive and complete information on how to expand their distribution, number of families, genera and species, they said. Since the study of floristic list and determine the importance of biodiversity and is one of the main purposes of scientific research and in this paper, we studied the flora of lake basin Kaftar Eghlid city is analyzed. (Wide Water Consulting Engineers. 2008).

### Methodology:

In order to detect and identify the flora and vegetation in the lake basin Kaftar suitable habitats in different habitats and elevations and slopes in each habitat separately identified and listed plants are harvested. The result obtained in this study is library research and field. In order to detect and identify the flora and vegetation of the

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region based on studies conducted in the area also based on observations made during field visits and using the identification key flora and vegetation of wetlands floristic list was determined Kaftar Eghlid city.

### Results:

The results of the investigation to determine the floristic list basin lake city Kaftar Eghlid in Table A list of tree and shrub cover and pasture cover is provided.

**Table 1:** List of city Kaftar Lake Basin floristic Eghlid Place the vegetative growth of the Persian family name, species name row

row	Scientific species name	family	Persian species name	Growth form
1	<i>Achillea vermicularis</i>	Compositae	Yarrow	Herbaceous
2	<i>Aethionema sp.</i>	Cruiferae	Fire	
3	<i>Allium Ampeloprasum iranicum</i>	Liliaceae	AA	
4	<i>Allium stomineum</i>	Liliaceae	Chive	
5	<i>Alopecurus sp.</i>	Gramineae	Foxtail	
6	<i>Alyssum sp.</i>	Cruciferae	Alyssum	
7	<i>Amarantus sp.</i>	Amaranthaceae	Tumbleweed	
8	<i>Artemisia sp.</i>	Compositae	Sagebrush	
9	<i>Artemisia cina</i>	Compositae	Mountain sagebrush	
10	<i>Artemisia herba – alba</i>	Compositae	Sagebrush	
11	<i>Avena sp</i>	Gramineae	Wild oat	
12	<i>Batrachium trichophyllum</i>	Ranunculaceae	Buttercup Blue	
13	<i>Bromus tomento sus</i>	Gramineae	Sweep grass felt	
14	<i>Butomus umbellatus</i>	Butomaceae	Thousand reeds	
15	<i>Carduus seminudus</i>	Compositae	Tatari	
16	<i>Centaurea sp.</i>	Compositae	Cornflower	
17	<i>Cephalaria syriaca</i>	Dipsacaceae	Srshkafth	
18	<i>Chenopodium album</i>	Chenopodiaceae	Chenopodium	
19	<i>Chenopodium glaucum</i>	Chenopodiaceae	Salamah	
20	<i>Cichorium intybus</i>	Compositae	Succory	
21	<i>Convolvulus avensis</i>	Convolvulaceae	Convolvulus arvensis	
22	<i>Cousinia sp.</i>	Compositae	Tatari	
23	<i>Crocus caneellatus</i>	Iridaceae	Saffron Zagros	
24	<i>Cus cuta sp</i>	Cuscutaceae	Dressing	
25	<i>Cynodon dactylon</i>	Gramineae	Poultry	
26	<i>Dactylis glome rata</i>	Gramineae	Orchardgrass	
27	<i>Dorema ommoniacum</i>	Umbelliferae	Dose, Kmandl	
28	<i>Echinochloa crus - galli</i>	Gramineae	Barnyardgrass	
29	<i>Echium amoenum</i>	Boraginaceae	Borage	
30	<i>Eryngium bungei</i>	Umbelliferae	Zul, Bvqnaq	
31	<i>Erysimum sp.</i>	Cruciferae	Bitter Khakshir	
32	<i>Eruca sativa</i>	Cruciferae	Turnip	
33	<i>Festuca sp..</i>	Gramineae	Grass lamb	
34	<i>Fumaria parviflora</i>	Fumariaceae	Leek King deciduous	
35	<i>Fu maria vaillantll</i>	Fumariaceae	Shah accumulation	
36	<i>Claucium sp.</i>	Papaveraceae	Anemone	
37	<i>Clycyrr hiza glabra</i>	Papilionaceae	Licorice	
38	<i>Hordeem sp.</i>	Gramineae	Joe several years	
39	<i>Tris spuria musulmanica</i>	Iridaceae	Lily grass, an equipment	
40	<i>Lolium perenne</i>	Gramineae	Darnel	
41	<i>Matthiola sp .</i>	Cruciferae	Cross	
42	<i>Mentha aquatica</i>	Labiatae	Aquatic plant	
43	<i>Mentha Piperita</i>	Labiatae	Mint	
44	<i>Mentha pulegium</i>	Labiatae	Aromatic oregano	
45	<i>Noaea mucronata</i>	Chenopodiaceae	Kharg - Nova	
46	<i>Onobrychis sp.</i>	Papilionaceae	Sainfoin	
47	<i>Papaver sp.</i>	Papaveraceae	Poppy	
48	<i>Phlomis sp.</i>	Labiatae	Lamb's ear	
49	<i>Phragmites sp.</i>	Gramineae	Ney	
50	<i>Plantago sp.</i>	Plantainaceae	Plantain	
51	<i>Poa bulbosa.</i>	Gramineae	Piaazak lawn with	
52	<i>Poa sp.</i>	Gramineae	Grass	

53	<i>Polygonum alpestr</i>	Polygonaceae	Grass seven mountain	
54	<i>Polygonom amphibiam var. natans</i>	Polygonaceae	Grass seven amphibious	
55	<i>Polygonom aviculare</i>	polygoaceae	Grass seven	
56	<i>Rumex sp.</i>	Polygonaceae	Oxalis	
57	<i>Salvia sp.</i>	Labiatae	Salo, sage	
58	<i>Scstiola sp.</i>	Compositae	Fat cow now	
59	<i>Sisymbrium gaubae</i>	Cracifera	Khakshir	
60	<i>Sonchus asper</i>	Compositae	Milk Tighak	
61	<i>Stipa sp.</i>	Gramineae	Stipa grass needle	
62	<i>Tragopogon graminifolius</i>	Compositae	Jocose	
63	<i>Tragopogon montanus</i>	Compositae	Sheng mountain	
64	<i>Trifolium sp.</i>	Pailionaceae	Clover	
65	<i>Typha sp.</i>	Typhaceae	Louis	
66	<i>Veronica anagallis- aquatica</i>	Compositae	Water germander	
67	<i>Viola sp.</i>	Violaceae	Violet	
68	<i>Acantholion sp.</i>	Plumbaginaceae	Hat Mir Hassan	
69	<i>Acanthophyllum sp.</i>	Caryophyllaceae	Chubak	
70	<i>Alhagi comelorum</i>	Pailionaceae	Camel's thorn	
71	<i>Arenaria sp.</i>	Caryophyllaceae	Coral	
72	<i>Astragalus sp.</i>	Papilionaceae	Milk vetch	
73	<i>Eirium arvense</i>	Compositae	Artichoke field	
74	<i>Colutea persica</i>	Papilionaceae	Daghdaghak	
75	<i>Cousinia sp.</i>	Compositae	Tatari	
76	<i>Cynora syriaca</i>	Compositae	Artichoke	
77	<i>Dorema ommoniacum</i>	Umbellifera	Dose - Kmandl	
78	<i>Echinops sp.</i>	Compositae	Sugar Tighal	
79	<i>Ephedra strobilacea</i>	Ephedraceae	Armaki	
80	<i>Ferula assa – foetida</i>	Umbellifera	Ferula asa	
81	<i>Ferula macroclea</i>	Umbellifera	Coma	
82	<i>Gundelia tournefortii</i>	Compositae	Edible artichokes	
83	<i>Juncos sp.</i>	Juncaceae	Mechanism	
84	<i>Lactuca glaucitfolia</i>	Compositae	Broom	
85	<i>Prangos crossoptera</i>	Umbelliferae	Jashir Zagros	
86	<i>Rheum rives</i>	Polygonaceae	Rhubarb	
87	<i>Thymus sp.</i>	Labiatae	Thyme	
88	<i>Acer cinerascens</i>	Areraceae	Keykom	
89	<i>Amygdalus scoparia</i>	Rosaceae	Arjan	
90	<i>Populus nigra</i>	Salicaceae	Shalk	
91	<i>Populus nigra var. natans</i>	Salicaceae	Tabrizi	
92	<i>Salix alba</i>	Salicaceae	White willow	
93	<i>Salix purpurea</i>	Salicaceae	Red Willow	
94	<i>Berberis vulgaris</i>	Berberidaceae	Barberry	
95	<i>Daphne mucronata</i>	Thymelaeaceae	Kheveshk, the hazel	
96	<i>Ephedra procera</i>	Ephedraceae	Meadowsweet	
97	<i>Euphorbia aucheri</i>	Euphorbiaceae	Euphorbiaceae Mountain	
98	<i>Rhamnus cornifolia</i>	Rhamnaceae	Mountain walking, black Tangres	
99	<i>Zataria multiflora</i>	Labiatae	Multiflora	

Based on studies of vegetation surrounding the lake lands Kaftar and can be divided into 4 groups grasses, shrubs, trees and shrubs will separation of whole plant communities has an area of about 15,343 acres is Lake basin Kaftar In this area, over 99 species have been identified, including 67 species and 20 species of herbaceous plants and six tree species and 6 species belonging to 34 families is a Shrub Most of them belong to the family Compositae) is. The highest number of species belonging to the family (Compositae) with 17 species (17%) and family (Gramine) with 14 species (14 percent). A total of 99 species were identified from 23 species (23%) and hydrophilic (Hydrophyle) and related areas and wet lands and lakes are only four species in the lake and the aquatic environment will. Kaftar and its lake basin plains of the phyto Namdan geo-geographic regions (Irano-Turanien Region) is located. This area of the central part of East Asia makes it a distinct region between the two Mediterranean herbs and Shara - document is, therefore, possess some elements of these two locations is growing. Plant area Irano - Turanian flora of about 69 percent as independents (a region) to account for the 6/15 percent of vegetation element is shared with other regions. Characterized by the Irano - Turanian region often have a dry climate and rainfall less than 200 mm. Mountainous part due to having higher rainfall (400 mm or more) The mean annual evaporation is less, on the one hand and moderate summer temperatures of water and air on the other hand, shows a greater affinity of the Zagros Mountains. Due to severe ecological differences

between the dominant vegetation of the region, in locations where there is diverse species that have become adapted to the area of environmental limits. The species belonging to this region during their life history the diversity, different ecotypes have created and the region is considered a genetic advantage (4). Although in terms of geography, vegetation in the mountainous area of Lake Kaftar growth Irano - Turanian has been under stress due to winter temperatures below freezing for at least 2 consecutive months due to water stress in summer and a little bit, at least for 5 months precipitation in since there However, this region compared to other parts of the annual water improvement district Irano - Turanian is that the lake is affected by climate. Research also shows that the current system of ecological sustainability Kaftar lake life is good. Thus the height of the dry lowlands and the coastal waters of West Lake, the dominance of certain natural communities, is located Without any competitive mechanism of activation and limited natural mechanisms in place to regulate plant communities and fauna habitat has led to formation Each group of animals in a certain area of their biological activities, ranging from niche selection, feeding and reproductive got to do.

#### REFERENCES

- Duke, J.A., 1989. CRC Hadn book of Medicinal plants. CRC press, ink Boca raton, Florida.
- Detailed studies Kaftar lake, 2009. Environmental Report. Wide Aquatic Consultants. Iranian Fisheries Company.
- Fischer, G., 1994. Heikrauter und Arzneipflanzen, Haug Verlag, Heidelberg.
- Fawzy, K., 1985. Medicinal plants in Libya, Arab Encyclopeda House, First print Run.
- Grassland floristic list Darghok city Eghlid, 2006. the Department of Natural Resources of Fars Province.
- Hertwig, H., 1966. Dasgrosse Buch der Heilpflanzen. Knauer Verlag, Munchen.
- Lauren, J., 1979. Herbal Medicine, The Herb Society/Rider London Melbourne sydney Auckland Johannesburg.
- List, F., 1978. Hagers Handbuch der Pharmazeutischen Praxis, Springer Verlag, Berlin, pp: 1-8.
- Mrs, M., Grieve., 1980. A Modern Herbal, Edited and introduced by MRSC.F.Leyel, Made and Printed in Great Britain by Hazelf Watson and Viney Limitad.
- Report of Water Resources. Department of Water Affairs province.
- Tyler, V.E., L.R. Brady, J.E. Robbers, 1988. Pharmacognosy 9<sup>th</sup> ed., Lea and fabiger Philadelphia.
- Wide Water Consulting Engineers., 2008. the study of wetlands Fars Province Department of Environmental Protection.
- Yarmohammadi, F., O. Natural, 2007. Evaluation of the forest floristic list Arsanjan Khalil Beyg. First Regional Conference on Natural Resources and Environment, Arsanjan, 16 March 2006.