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STUDY OF GENETIC VARIATIONS AMONG IRANIAN *IRISES* SPECIES USING MORPHOLOGICAL CHARACTERISTICS

2n=2x=18-48

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UPGMA

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(*Iris* spp.)

Limniris ,*Iris* ,*Hermodactyloides*

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Iris

Scorpiris

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Oncocyclus

Iridaceae

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Table 1. Continued.

1900		<i>I. paradoxa</i> Steven, Mem. Soc. Nat. Mosc. 5:355 (1817).	' ' Paradox	H
	Eastern Azarbayejan - Tarzom			
2350	Chalus Road	<i>I. pseudacaucaisica</i> Grossh., Monit. Jard. Bot. Tiflis 40-41(1916).	' ' Shafaf	M
2350	-	<i>I. fosterana</i> Aitch & Baker	' ' Dorang	K
	Khorasan Razavi- Ghuchan			
1900	-	<i>I. songarica</i> SCHRE-NK	' ' Gol Chamani	G
	Markazi - Khomein			
1832	-	<i>I. kopetdaghensis</i> (VUED) MATHEW	' ' Khorasan	A
	Khorasan Razavi- Neck Fareman			
1450	-	<i>I. aucheri</i> (Baker) Sealy	' ' Kamani	C
	Kordestan- Sanandaj			
2950	-	<i>I. imbricata.</i> Lindl., bot. Reg. 31:tab. 35 (1854).	' ' Limooei	I
	Tehran- Damavand- Tar Lake			
1300	-	<i>I. spuria</i> L. sp. pl. 39. (1753).	' ' Namakzar	N2
1680	Eastern Azarbayejan - Ahar	<i>I. spuria</i> L. sp. pl. 39. (1753). <i>Syn. I. musulmanica</i> (Fomin) Takht.	' ' Namakzar	N3
	Markazi- Poldoab			
1652	-	<i>I. spuria</i> L. sp. pl. 39. (1753).	' ' Namakzar	N1
	Hamadan- Farmen			
1874	Hamedan	<i>I. spuria</i> L. sp. pl. 39. (1753). <i>Syn. I. haplophila</i> (Ghareman)	' ' Namakzar	N4

Table 2. More important qualitative traits in 18 *Iris* species.

N3	N2	N4	N1	F1	M	L	K	C	I	H	G	F2	E	D	J	B	A	Character Species
Straight	Straight	Straight	Straight	Straight	V-Shaped	Straight	V-Shaped	V-Shaped	Straight	Straight	U-Shaped	Straight	Straight	Straight	Straight	V-Shaped	V-Shaped	Leaf profile section
Obovate	Obovate	Obovate	Obovate	Obovat	Obovate	Obovate	Elliptic	Obovate	Obovate	Obovate	Elliptic	Obovate	Circular	Elliptic	Elliptic	Obovate	Elliptic	Outer tepal shape of blade
Blue-yellow	Violet-blue	White-yellow	Blue-yellow	White	Pale blue	Yellow-grey	Green-yellow	Violet-blue	Yellow	Orange	White-violet	Violet	Brown	Violet	White-violet	Pale blue	Pale yellow	Outer tepal ground color of upper side
Obovate	Obovate	Obovate	Obovate	Obovate	Elliptic	Obovate	Obovate	Obovate	Obovate	Obovate	Obovate	Obovate	Rounded	Obovate	Obovate	Elliptic	Elliptic	Inner tepal shap of blade
Blue	Violet-blue	White	Violet-blue	White	Pale blue	Orange-yellow	Yellow	Violet-blue	Yellow	White	Violet	Violet	Brown	Violet	White-violet	Blue	Yellow	Inner tepal color
Blue	Violet-blue	White	Violet-blue	White	White	Yellow	Pale Yellow	White	Pale Yellow	White	Violet	Pale violet	Palr brown	Violet	White	Pale blue	Pale yellow	Pistil color of upper side of bridge
No	No	No	No	yes	No	yes	No	No	yes	yes	No	yes	yes	yes	yes	No	yes	Beard
yes	yes	yes	yes	yes	No	No	No	No	No	No	No	yes	No	No	No	No	No	Scent flower
Rhizome	Rhizome	Rhizome	Rhizome	Rhizome	Rhizome	Rhizome	Bulb	Bulb	Rhizome	Rhizome	Rhizome	Rhizome	Rhizome	Rhizome	Rhizome	Rhizome	Bulb	Storage organ
May	May	May	May	April	March	May	April	May	May	May	May	May	May	May	May	April	May	Flowering time

Table 3. Correlation coefficients of quantitative traits in 18 *Iris* species.

Crown thickness	Flowering branch thickness	Bush lenght	Crest width	Crest lenght	Pistil width of bridge	Inner tepal width	Inner tepal lenght	Outer tepal width of claw	Outer tepal width	Perianth tube lenght	Flower size	Peduncle thickness	Peduncle lenght	Leaf width
0.31	0.40	0.60 ^{††}	0.41	0.42	0.55 [†]	0.45	0.36	0.80 [†]	0.18	-0.06	0.45	0.07	0.10	1
														Leaf width
0.12	0.13	-0.17	0.33	-0.13	0.14	-0.12	-0.22	0.17	-0.08	-0.21	0.15	0.19	1	Peduncle lenght
0.37	0.24	-0.10	0.22	0.20	0.48 [†]	0.52	0.35	0.19	0.62 ^{††}	-0.16	0.40	1		Peduncle thickness
0.16	0.04	0.43	0.10	0.09	0.44	0.65 ^{††}	0.65 ^{††}	0.58	0.39	-0.29	1			Flower size
-0.06	0.23	-0.12	-0.02	0.52 [†]	-0.01	-0.24	-0.27	-0.04	0.07	1				Perianth tube lenght
0.66 ^{††}	0.45	-0.17	0.21	0.36	0.50 [†]	0.74 ^{††}	0.47 [†]	0.37	1					Outer tepal width
0.30	0.30	0.60 [†]	0.36	0.34	0.73 ^{††}	0.62 ^{††}	0.56 [†]	1						Outer tepal width of claw
0.18	0.07	0.38	0.31	0.21	0.41	0.84 ^{††}	1							Inner tepal lenght
0.50 [†]	0.24	0.33	0.31	0.32	0.55 ^{††}	1								Inner tepal width
0.52 [†]	0.50 [†]	0.32	0.53 [†]	0.53 [†]	1									Pistil width of bridge
0.46	0.66 ^{††}	0.09	0.38	1										Crest lenght
0.10	0.35	0.08	1											Crest width
-0.17	-0.16	1												Bush lenght
0.80 [†]	1													Flowering branch thickness
1														Crown thickness

†, †† Significant diference in 5%, 1% level respectively.

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†† †

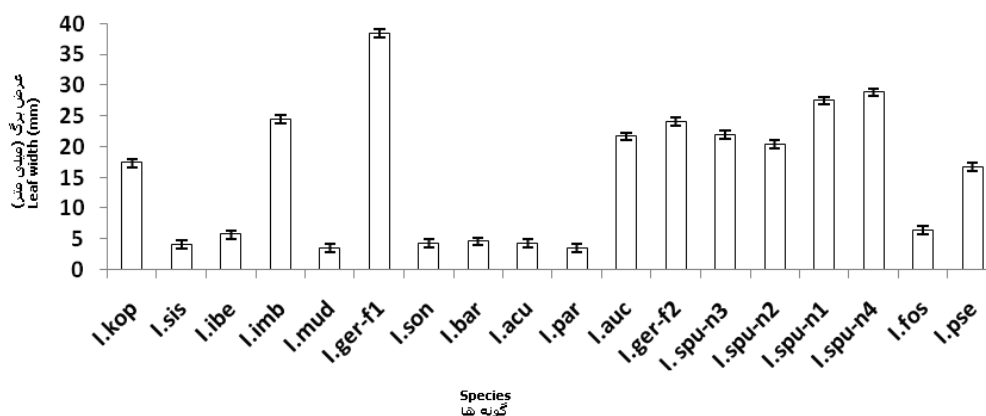


Fig. 1. Avreag width of leaf (mm) and standard deviation

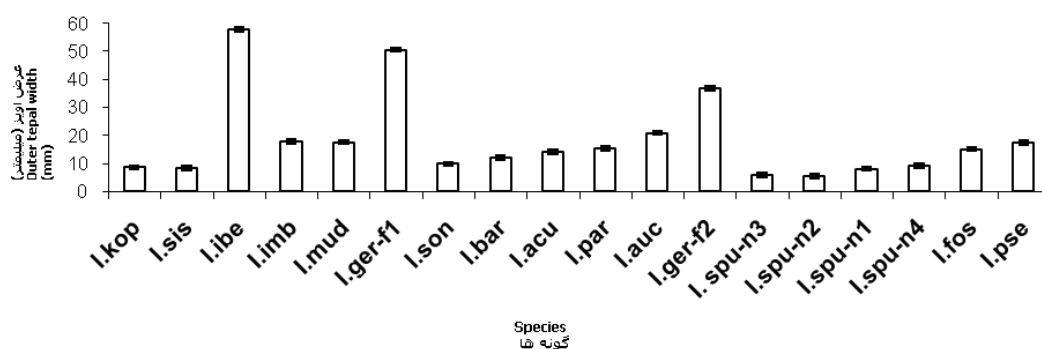


Fig. 2. Avreag width of outer tepal (mm) and standard deviation.

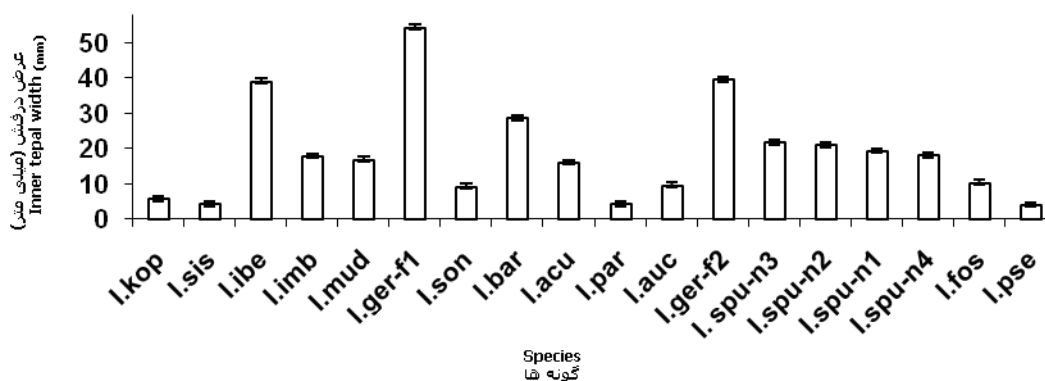


Fig. 3. Avreag width of inner tepal (mm) and standard deviation.

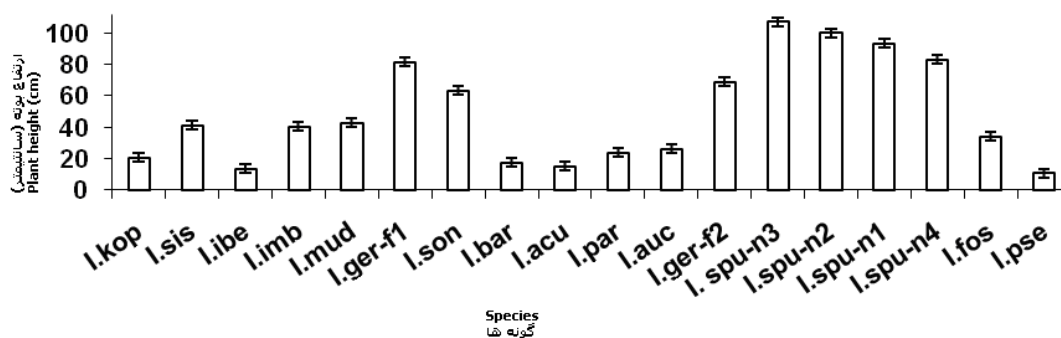


Fig. 4. Avreag plant height in (cm) and standard deviation.

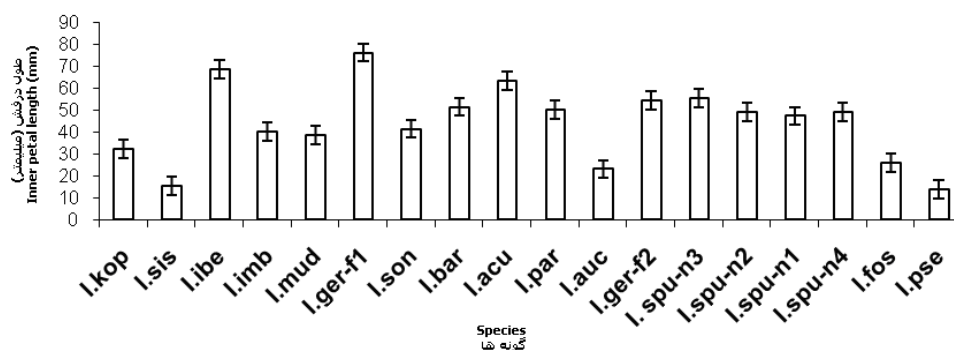


Fig. 5. Avreag length of inner tepal in (mm) and standard deviation.

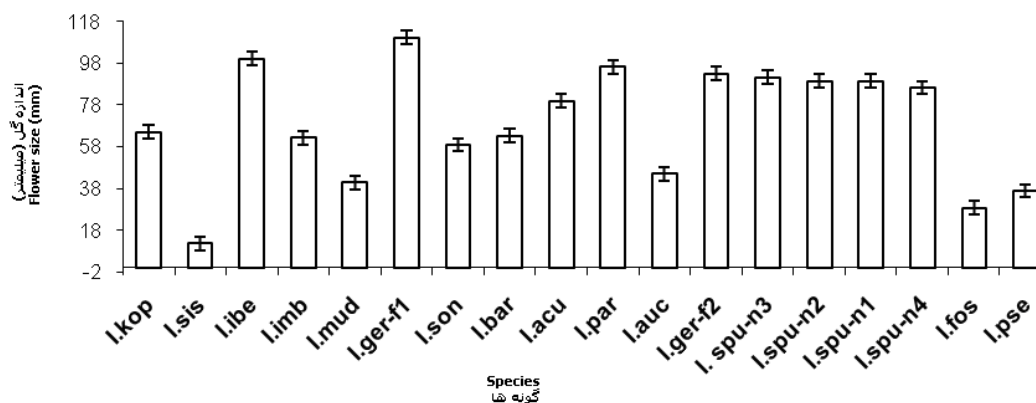


Fig. 6. Avreag flower size (mm) and standard deviation.

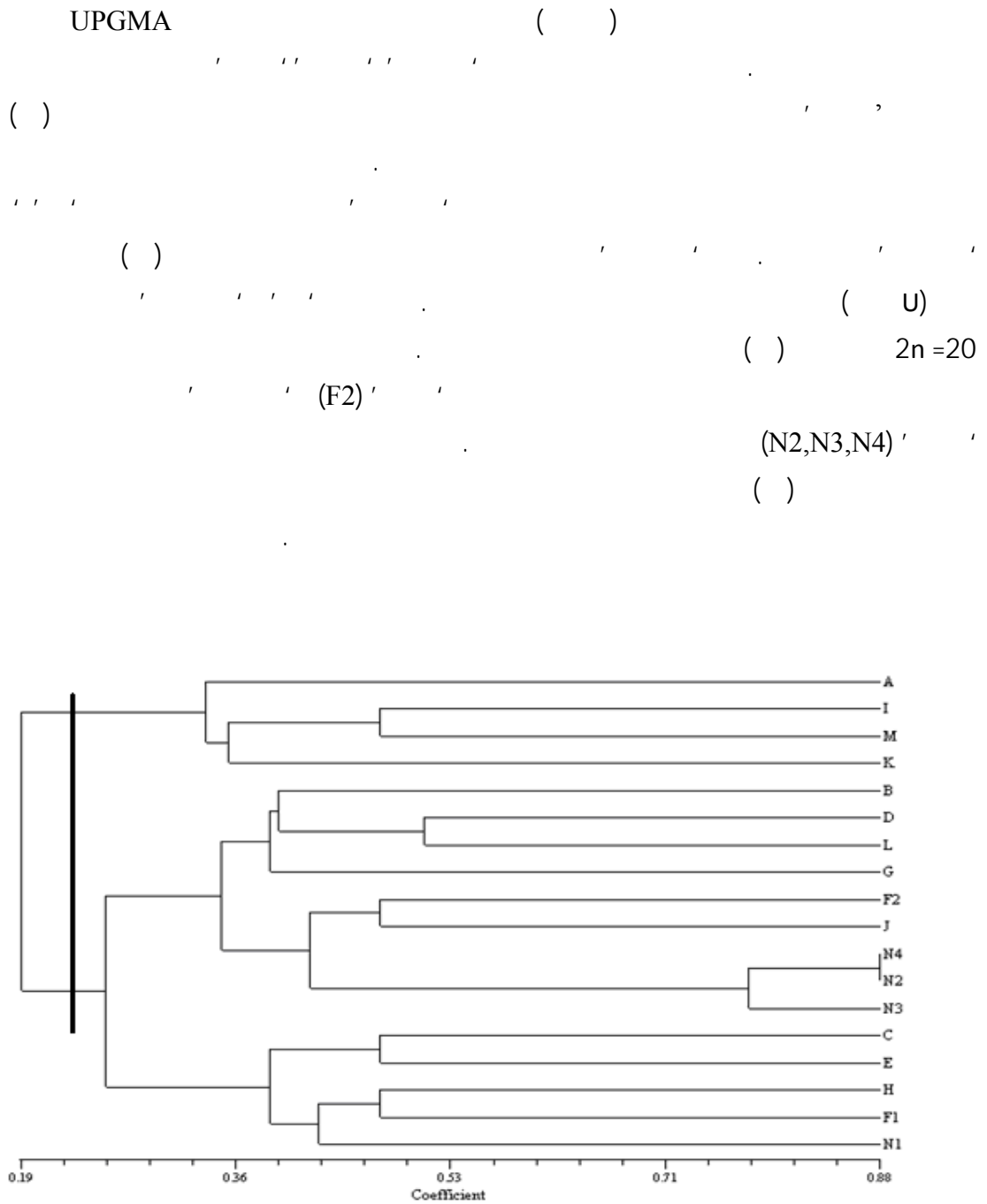


Fig. 9. Grouping of 18 *Iris* species using qualitative traits according to UPGMA algorithm.

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(N1) (F1) (F1, F2)

(N1) ' ' .

(N2, N3, N4) ' ' .

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(F1) ' ' (

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