(*Circus aeruginosus*)

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* نویسنده مسئول: تلفن: ۲۲۴۵۹۰۸-۰۲۶۱   فاکس: ۲۲۴۵۹۰۸-۰۲۶۱   E-mial: mkaboli@nrf.ut.ac.ir

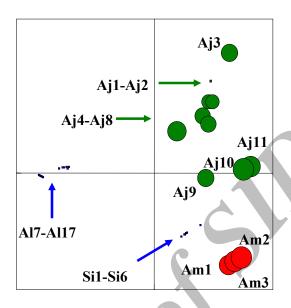۱- Umbrella species

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(

(Ss Ts,R, P, W)

(1a, 2a, 3a, 3c) 1, 2, 5, 6

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(*Anas strepera*)

(*Aythya fuligula*)

(*Fulica atra*)   (   )

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(*Pelecanus crispus*)
(*Anser erythropus*)
(*Aquila heliaca*)
(*Oxyura leucocephala*)

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(*Circus aeruginosus*)
(Accipitridae)
(Aves)   (Falconiformes)
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(

)   (Dr)
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(Wdf)   (Wds)

(Graz)

‪)   (‬   ( )

( )

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( )

)   (Dam)

.   (( )

(Wuse)   ( )

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( )   Smith Hill

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Smith Hill

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Total Inertia= (Inertia MCOA × Nb Var.
Qualitative / NBVar.Tot.) + (Inertia PCA /
NBVar.Tot.)

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Inertia

Smith   Hill

1	+ ,625	+0.469	+0.469
2	+ ,625	+0.192	+0.661
3	+ ,625	+0.140	+0.802

(R^2) R^2

:

Smith   Hill

R^2				

)   .   Smith   Hill

(Dr

(Wds   Wdf   )   )

.   .   (

.

(Wuse   )
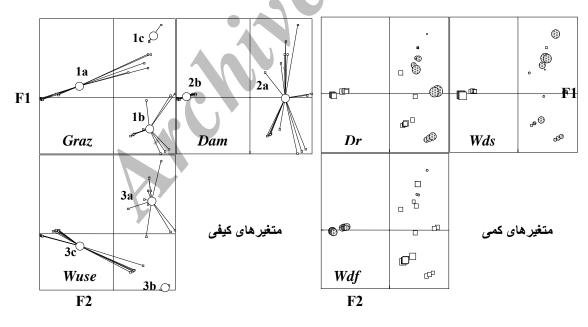
)   .

(Dam

(Am1-Am3)

(Graz) .

Aj3

Aj1-Aj2 →

Aj4-Aj8 →

Aj11

Aj10

Aj9

Al7-Al17

Si1-Si6

Am2

Am1

Am3

. Smith Hill

Al = Aj = Am = . ( )

Si = ( ) .

1c

1a

F1

1b

Graz

2b 2a

Dam

Dr

Wds F1

3a

متغیرهای کیفی

3c

Wuse

3b

F2

Wdf

متغیرهای کمی

F2

. Smith Hill

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.
(Al7-Al17)
.   (   )

Wdf   )
(Dam
.   (Dr   )

)

(

.(Si1-Si6)
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.   (
)
(Dr   Wdf
.

Aj1)
(Aj2
( )
(Aj3 – Aj11)
.   .

)

.   (Graz
(   )

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(   )

... (*Podiceps   cristatus*)   (*P.*)

(*ruficollis*   (*Fulica atra*)

(*Gallinula chloropus*) ...

(*Vulpes vulpes*)

(*Canis   aureus*)   (*V. corsac*)

(*Felis catus*)

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A Study of the Factors affecting the Breeding Success of Marsh Harrier *(Circus aeruginosus)* as an Umbrella Species in Aji-gol, Ala-gol and Alma-gol International Wetlands of Turkmen Steppe

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Abstract

This study was conducted to evaluate the problems and threats of Aji-gol, Ala-gol and Alma-gol international wetlands of Turkmen steppe in Golestan province, taking the Marsh harrier (*Circus aeruginosus*) as an umbrella species. Monitored were 31 nests, 131 eggs, 62 nestlings and 28 juveniles during two breeding periods, from late winter 1997 to late spring 1999. Factors affecting the nests and the nestlings were also regularly monitored. The three areas considered together, the breeding success of Marsh harrier was estimated to be about 21.37 %, a proportion much lower than that normally observed in Europe. Flooding of breeding habitats through construction of dams in the north-west of Ala-gol, and on the contrary, drying up of these habitats through drainage for aquaculture activities in the northern part and as well impact of livestock grazing are responsible for this breeding failure and consequently, the most important threats for the wetlands and their wildlife. In total, the current overexploitation of the areas with no due consideration of the seasonal needs of wildlife represents the principle threat to the biodiversity of the wetlands.

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