
(Canis lupus)

*

(/ / : / / :)

(SE= /) /
(F(,)= / P= /)

(t = / df= P= /)

Canis lupus :

...

Okarma)

.(*et al.*, 1998

.(Mech & Boitani, 2003)

Fuller *et al.*,)

Canin lupus (Sykes, 1831)

1992; Fuller, 1989; Messier, 1985; Fritts & Mech, 1981; Mech, 1970; Theuerkauf *et al.*, 2003; (Okarma *et al.*, 1998; Thurber & Peterson, 1993

(Etemad, 1985)

pallipes

Geffen Hefner

Ziaie,)

(1999)

(2008) Boitani Mech (2008

%

" "

Etemad (1976) Dareshuri Harrington

(2008) Ziaie (1985)

.(Mech, 1970, 1974, 2000)

Forbes, 2004; Bath & Enck, 2003; Glenz *et al.*,)

.(2001; Bath, 1998

" "

.(Ziaie, 2008)

.(Hefner & Geffen, 1999)

.(Mech, 1974)

" "

Mech & Boitani,)

(2003; Fuller, 1989; Peterson, 1977; Zimen, 1976

.(Mech & Boitani, 2003)

(Hosseini-Zavarei *et al.*, 2010)

(:

.(Theuerkauf *et al.*, 2003; Mech, 1974)

(

(

Sidorovich *et al.*, 2007; Thurber &)

.(Peterson, 1993

¹ Pack

² Foraging group

(Whittington, 2002; Thurber *et al.*, 1993)

(Whittington, 2002)

(×)

(<)

/ /

(Darvishsefat, 2006)

()

Astragalus) (*Artemisia sp.*)

Pouyesh Jameh Consultant,) (sp.
(2002)

Ovis orientalis)

(*isphahanica*)

(*Capra*) (*Gazella subgutturosa*)

(*Vulpes*) (*Canis aureus*) (*aegagrus*)

(*Hyaena hyeana*) (*vulpes*)

(Okarma *et al.*, 1998; Thurber & Peterson, 1993)

(*Panthera pardus*)

Pouyesh Jameh)

(Busch, 1995)

(Consultant, 2002)

¹ Nikon

² EOS Canon

³ Snow-tracking

...

/

(%)

df= , P= /)

(t= / ,

/

(n=)% / . (SE= /)

/

/

(SE= /)

/

(SE= /)

(t= / , df= , P= /)

Theuerkauf *et al.*,)
2003; Okarma *et al.*, 1998; Thurber & Peterson,
(1993

P= /)

SPSS ver.17

(F(,)= /

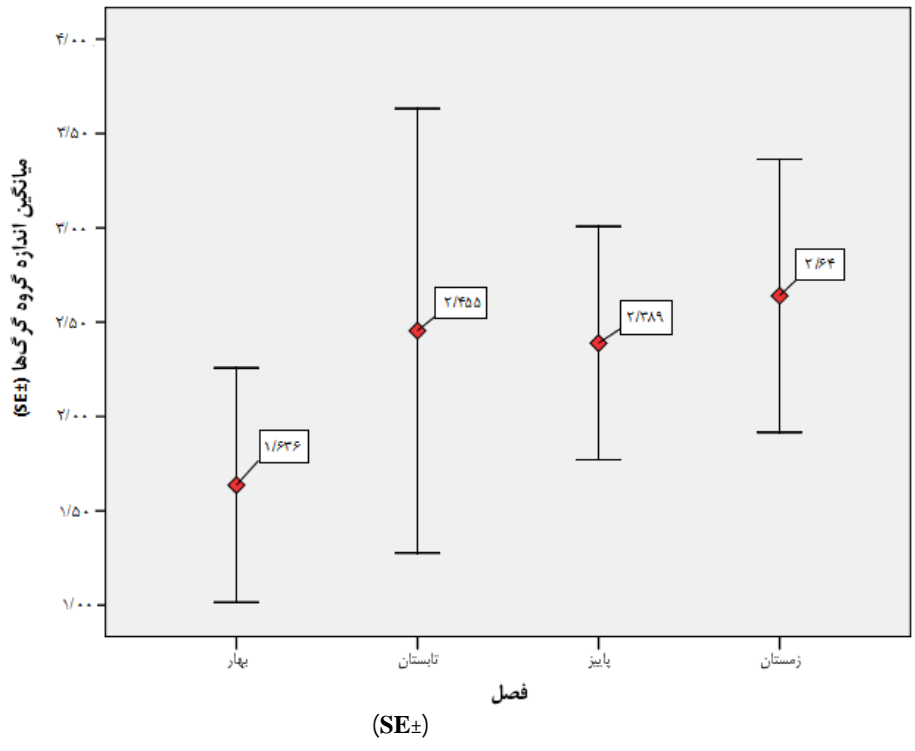
() (P> /)

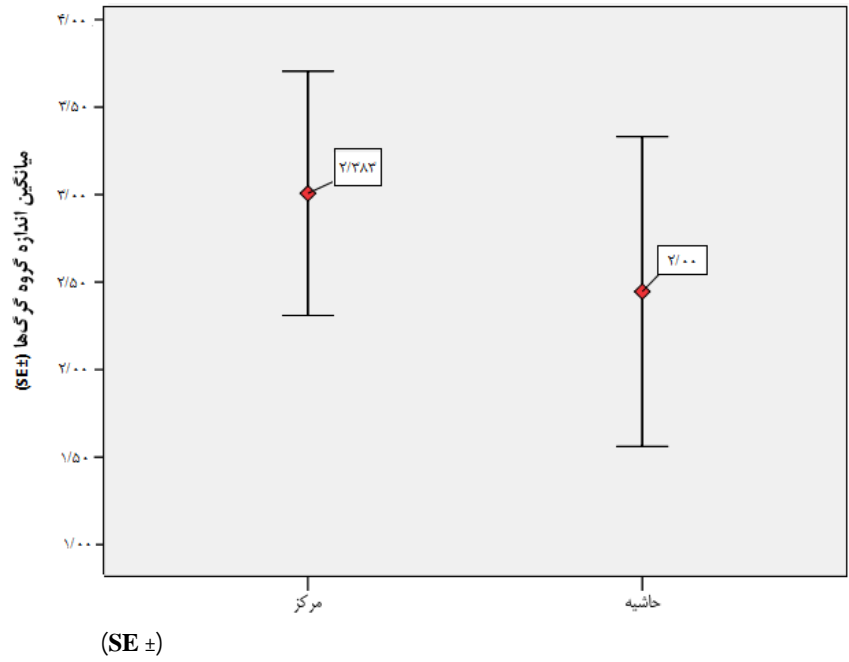
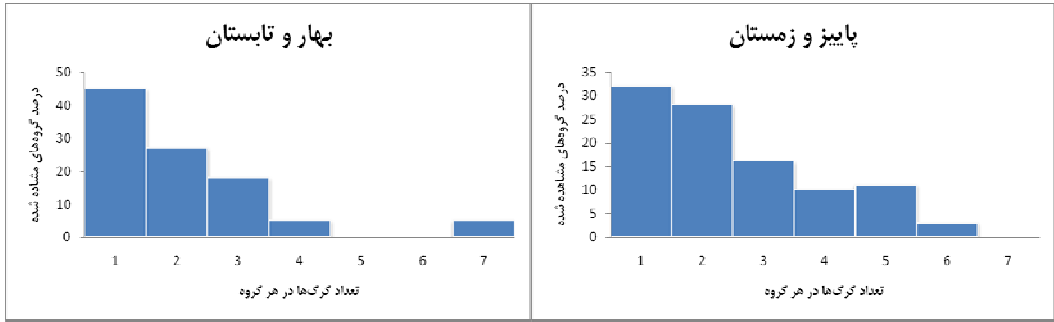
(T-Test)

()

$(SE = /) /$ $(/)$
 $(SE = /)$ $(SE = /)$
 $(SE = /) /$ $(t = / \quad df = \quad P = /)$
 $(t = / \quad , df = \quad , P = /)$ $(P < /)$

/	/		
/	/		
/	/		
/	/		





Theuerkauf *et al.*,) () (n=) %
(2003; Glenz *et al.*, 2001; Okarma *et al.*, 1998 ()
Fuller,) (Cayuela, 2004)
(1989)

%

Hefner & Geffen,)

(1999

.(Shalmon, 1986) (1970) Mech

Hefner &) ()

.(Geffen, 1999 / ± /

(Hefner & Geffen, 1999)

((SE= /) /)

(1992) Boitani

Hefner &)

.(Geffen, 1999)

.(

(Theuerkauf *et al.*, 2003)

.(Okarma *et al.*, 1998) /

Busch, 1995;)

.(Mech, 1970 Mech &)

.(n>)

.(Boitani, 2003; Fuller, 1989

(Abdoli *et al.*,2009)

Cervus elaphus

.(Nowak, 2005; Okarma, 1995)

...

% () (Busch, 1995)
(Jedrzejewska *et al.*, 1996)

(Abdoli *et al.*, 2009)
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(

Singh & Kumara, 2006;)
(Theuerkauf *et al.*,2003; Hefner & Geffen, 1999

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Ballard *et al.*, 1987; Mech,)

(1970

()

(Sidorovich *et al.*, 2007)
(Mech, 1974)

(Mech & Boitani, 2003)

(//)

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Group Size Variation of Grey Wolf (*Canis lupus*) in Ghamishlou Wildlife Refuge and National Park, Esfahan

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Abstract

Despite its largest range of distribution in comparison to other large carnivores in Iran, the grey wolf has been the least-studied carnivore in the country with limited available data on its ecology. Its social life and population composition have been investigated across its global range in Europe and North America; however, it has been less explored in arid environments of Asia. Accordingly, the grey wolves normally live in groups which their size is correlated with prey size and availability. Meanwhile, their group structure is affected by human exploitation. Present research was conducted between July 2007 and April 2009 in Ghameshlou Wildlife Refuge and National Park as an arid reserve with high density of domestic and wild ungulates. Transects covering various habitat types were patrolled monthly which as a result, 65 times wolves were encountered. Mean group size was calculated 2.37 (SE=0.19), seasonally around two individuals with no significant seasonal difference ($P= 0.339$, $df=3$, ANOVA=1.143) and spatial difference ($P=0.423$, $df=58$, $t=0.807$). Wolf group size in Ghameshlou is one of the smallest ever documented in the world which is maybe related to its prey size. Shooting and road incidents are the main factors of human-caused mortalities in Ghameshlou. Composition of sighted groups generates a hypothesis that the wolf population has a stable situation and is not heavily affected by human exploitation.

Keywords: Gray wolf, *Canis lupus*, Group size, Ghameshlou national park, Wildlife refuge