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“Sanei, A. 2007. *Analysis of leopard (Panthera pardus) status in Iran (No.1)*. Tehran, Sepehr Publication Center (In Persian). ISBN: 978-964-6123-74-8. 298 p.”

Summary of chapter 7 in “Sanei, A. 2007. *Analysis of leopard (Panthera pardus) status in Iran (No.1)*. Tehran, Sepehr Publication Center (In Persian). 298 p.”

## ☞ **Biometry**

**Summary of chapter 7 in “Sanei, A. 2007. *Analysis of leopard (Panthera pardus) status in Iran (No.1)*. Tehran, Sepehr Publication Center (In Persian). 298 p.”**

I collected measurements of alive and dead leopard individuals, leopard skeletons, skulls; flat skins as well as taxidermy leopard individuals from 2002 to 2006 mainly based on the WCS biometry protocol (See also Figure 1 and 2). However, more detail data is presented in the original text.



Photo: Arezoo Sanei

Sample code: 1

Location: Khorasan province

Total body length: 240 cm

Gender: Male



Photo: Arezoo Sanei

Sample code: 2

Location: Unknown

Total body length: 219 cm

Gender: Male

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Photo: Arezoo Sanei

Sample code: 3

Location: Semnan province

Total Length: 117 cm

Gender: Male



Photo: Arezoo Sanei

Sample code: 4

Location: Gorgan-Golestan province

Total body length: 250 cm

Gender: Male



Photo: Arezoo Sanei

Sample code: 5

Location: Gorgan-Golestan province

Total body length: 255 cm

Gender: Male

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Sample code: 6

Location: Mazandaran province

Total body length: 240 cm

Gender: Male



Photo: Arezoo Sanei



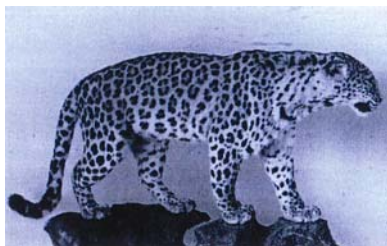
Sample code: 7

Location: Mazandaran province

Total body length: 234 cm

Gender: Male

Photo: Arezoo Sanei



Sample code: 8

Location: Khosh-yeilagh, Semnan province

Total body length: 227 cm

Gender: Male

Photo: Dr. Tajbakhsh

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Photo: Arezoo Sanei

Sample code: 9

Location: Unknown

Total body length: 234 cm

Gender: Male



Photo: Arezoo Sanei

Sample code: 10

Location: Neishabour,  
Khorasan province.

Total body length: 210 cm

Gender: Female

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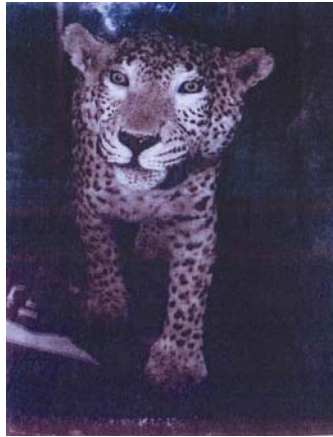


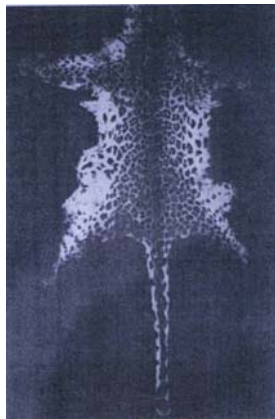
Photo: Arezoo Sanei

Sample code:11

Location: Dargaz- Khorasan province

Total body length: 245 cm

Gender:Male



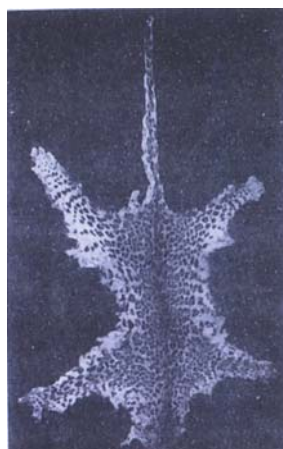
Etemad, 1985

Sample code:12

Location: Bandar-Gaz

Total body length: 208 cm

Gender: Unknown



Etemad, 1985

Sample code:13

Location: Kerman

Total body length: 202 cm

Gender: Unknown

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**Top: Leopard skeleton originated from Dargaz, Khorasan province (Photo: Arezoo Sanei).**

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Sample Type: Flat skin	Location of Origin: Khorasan province	
Factor	Measurement (cm)	
Tip of nose to base of tail (A)	148 cm	
Base of the tail to the end of the tail	92	
Tip of right front leg to tip of left front leg (E)	131	
Width of skin-Chest (D)	77	
Width of skin (C)	64	
Width of skin- Abdomen (B)	72	
Width of skin- Neck (F)	-	
Distance between ears (G)	4	

Sample Type: Flat skin	Location of Origin: Unknown	
Factor	Measurement (cm)	
Tip of nose to base of tail (A)	137	
Base of the tail to the end of the tail	81	
Tip of right front leg to tip of left front leg (E)	134	
Width of skin-Chest (D)	64	
Width of skin (C)	49	
Width of skin- Abdomen (B)	60	
Width of skin- Neck (F)	37	
Distance between ears (G)	9	

Sample Type: Flat skin	Location of Origin: Gorgan	
Factor	Measurement (cm)	
Tip of nose to base of tail (A)	150	
Base of the tail to the end of the tail	105	
Tip of right front leg to tip of left front leg (E)	155	
Width of skin-Chest (D)	75	
Width of skin (C)	70	
Width of skin- Abdomen (B)	85	
Width of skin- Neck (F)	-	
Distance between ears (G)	-	



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<b>Sample Type: Flat skin</b>	<b>Location of Origin: Bandar-Gaz</b>
<b>Factor</b>	<b>Measurement (cm)</b>
<b>Tip of nose to base of tail (A)</b>	<b>120</b>
<b>Base of the tail to the end of the tail (B)</b>	<b>88</b>

<b>Sample Type: Flat skin</b>	<b>Location of Origin: Kerman</b>
<b>Factor</b>	<b>Measurement (cm)</b>
<b>Tip of nose to base of tail (A)</b>	<b>112</b>
<b>Base of the tail to the end of the tail (B)</b>	<b>90</b>
<b>Height of the hind leg (G)</b>	<b>25</b>

<b>Sample Type: Flat skin</b>	<b>Location of Origin: Guladeh-Gorgan</b>
<b>Factor</b>	<b>Measurement (cm)</b>
<b>Tip of nose to base of tail (A)</b>	<b>177</b>
<b>Base of the tail to the end of the tail (B)</b>	<b>80</b>

<b>Sample Type: Flat skin</b>	<b>Location of Origin: Gorgan</b>
<b>Factor</b>	<b>Measurement (cm)</b>
<b>Tip of nose to base of tail (A)</b>	<b>122</b>
<b>Base of the tail to the end of the tail (B)</b>	<b>61</b>

<b>Sample Type: Flat skin</b>	<b>Location of Origin: Dezful</b>
<b>Factor</b>	<b>Measurement (cm)</b>
<b>Tip of nose to base of tail (A)</b>	<b>124</b>
<b>Base of the tail to the end of the tail (B)</b>	<b>95</b>

<b>Sample Type: Flat skin</b>	<b>Location of Origin: Unknown</b>
<b>Factor</b>	<b>Measurement (cm)</b>
<b>Tip of nose to base of tail (A)</b>	<b>142</b>
<b>Base of the tail to the end of the tail (B)</b>	<b>89</b>

<b>Sample Type: Flat skin</b>	<b>Location of Origin: Lorestan</b>
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Factor	Measurement (cm)
Tip of nose to base of tail (A)	112
Base of the tail to the end of the tail (B)	82

Sample Type: Flat skin	Location of Origin: Fars
Factor	Measurement (cm)
Tip of nose to base of tail (A)	142
Base of the tail to the end of the tail (B)	75

Sample Type: Flat skin	Location of Origin: Fars
Factor	Measurement (cm)
Tip of nose to base of tail (A)	127
Base of the tail to the end of the tail (B)	93

Sample Type: Flat skin	Location of Origin: Zanjan
Factor	Measurement (cm)
Tip of nose to base of tail (A)	127
Base of the tail to the end of the tail (B)	88
Height of the hind leg (G)	

(See also Moradi, 1999 and Etemad, 1985)

Sample Type: Taxidermy individual	Location of Origin: Mazandaran
Factor	Measurement (cm)
Tip of nose to base of tail (A)	150
Base of the tail to the end of the tail (B)	90
Height of the front leg (D)	81
Height of the hind leg (G)	-
Girth of the Chest (E)	-
Girth of the Abdomen (F)	-
Girth of Neck (C)	66

“Sanei, A. 2007. *Analysis of leopard (Panthera pardus) status in Iran (No.1)*. Tehran, Sepehr Publication Center (In Persian). ISBN: 978-964-6123-74-8. 298 p.”

<b>Sample Type: Dead individual</b>	<b>Location of Origin: Semnan-Touran National Park</b>	
<b>Factor</b>	<b>Measurement (cm)</b>	
Tip of nose to base of tail (A)	137	
Base of the tail to the end of the tail (B)	80	
Height of the front leg (D)	75	
Height of the hind leg (G)	71	
Girth of the Chest (E)	-	
Girth of the Abdomen (F)	-	
Girth of Neck (C)	53	

<b>Sample Type: Taxidermy individual</b>	<b>Location of Origin: Golestan</b>	
<b>Factor</b>	<b>Measurement (cm)</b>	
Tip of nose to base of tail (A)	155	
Base of the tail to the end of the tail (B)	92	
Height of the front leg (D)	91	
Height of the hind leg (G)	90	
Girth of the Chest (E)	99	
Girth of the Abdomen (F)	101	
Girth of Neck (C)	64	

<b>Sample Type: Taxidermy individual</b>	<b>Location of Origin: Golestan</b>	
<b>Factor</b>	<b>Measurement (cm)</b>	
Tip of nose to base of tail (A)	138	
Base of the tail to the end of the tail (B)	105	
Height of the front leg (D)	80	
Height of the hind leg (G)	79	
Girth of the Chest (E)	96	
Girth of the Abdomen (F)	78	
Girth of Neck (C)	-	

<b>Sample Type: Alive individual (A young male individual)</b>	<b>Location of Origin: Golestan</b>	
<b>Weight</b>	<b>64 kg</b>	
<b>Factor</b>	<b>Measurement</b>	
Tip of nose to base of tail (A)	147	
Base of the tail to the end of the tail (B)	87	

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Height of the front leg (D)	77
Height of the hind leg (G)	-
Girth of the Chest (E)	87
Girth of the Abdomen (F)	76
Girth of Neck (C)	54



A leopard skull and leopard jaws obtained from Golestan province (Photo: Arezoo Sanei).

Sample Type: Skull		
Location of origin	Length	Width
Mazandaran	27.1	19.1
Amol	27.1	17.7
Amol	27.0	17.0
Shahroud	25.9	17.0
Bojnourd	25.7	16.8
Gorgan	25.6	16.0

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Damghan	25.6	15.8
Loshan	24.1	16.1
East Azarbaijan	24.0	15.5
Mazandaran	23.3	15.6
Unknown	23.0	15.5
Khosh-Yeilagh	23.2	15.0
Khosh-Yeilagh	23.2	15.0
Mazandaran	23.0	15.0
Shahroud	23.6	14.3
Semnan province	23.5	-
Gorgan	23.0	-
Kerman	21.0	-
Zanjan	19.9	-
Gorgan	26.2	-
Fars province	26.0	17.0
Minu-Dasht	26.7	17.4
Golestan national park	27.8	18.4
Golestan province	24.3	16.7
Livan Village,	26.4	16.7
Livan Village	24.2	15.6
Golestan national park	21.3	14.2
Jahan Nama protected area	22.8	14.6
Golestan national park	23.8	15.5

(Sources: Personal data; Moradi, 1999; Etemad, 1985)

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**Collecting biometry data of an immobilized leopard in Darabad Wildlife Museum, Tehran 2002 (Photo: Somayeh Moezzi)**

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Etemad I. 1985. Mammals of Iran, volume 2. Department of Environment of Iran (In Persian), Tehran.

Moradi M. 1999. Plan for recognition of natural environment. University of Zanjan (In Persian), Zanjan.

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