



The Body Mass Of The Cougar (Puma Concolor) In Alberta & Patagonia

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By NoCap, February, 2021.

There are a few records Of the size of the Cougar (*Puma concolor*) In the Canadian province, alberta And in Patagonia. In this document, I Will Gather all the information on The sizes of the cougars in these locations, and Find out the Average size.

Alberta:

Sunquist & Sunquist (2002), In the table 49, Presents Weights And body Lengths Of Male And female Cougars in Alberta.

TABLE 49 MEASUREMENTS AND WEIGHTS OF ADULT PUMAS							
HB	n	T	n	WT	n	Location	Source
1,380	12m	790	12m	71.0	11m	Canada	179
(1,200–1,500)		(730–830)		(57–76)			
1,240	36f	710	36f	44.0	34f	Canada	173
(1,080–1,310)		(610–820)		(34–50)			
1,332	9m	832	9m	61.6	8m	Colorado	73
(1,220–1,420)		(720–920)		(51.8–70.8)			
1,244	13f	778	13f	44.5	14f	Colorado	73
(1,060–1,370)		(720–840)		(38.5–49.9)			
1,347	10m	769	10m	58.9	10m	New Mexico	58
(1,260–1,440)		(700–830)		(56.2–64.4)			
1,179	11f	711	11f	30.7	11f	New Mexico	58
(1,110–1,260)		(630–770)		(27.2–36.3)			
1,386	34m	690	34m	53.6	43m	Florida	180
(1,200–1,680)		(605–804)		(39.0–69.9)			
1,261	25f	658	25f	36.1	37f	Florida	180
(1,031–1,410)		(570–880)		(22.7–49.0)			
1,198	7m	679	7m	53.1	7m	Brazil	54
(1,070–1,360)		(640–780)		(41.5–68.0)			
1,076	10f	639	10f	36.9	10f	Brazil	54
(950–1,170)		(580–700)		(25.0–45.0)			
1,220	4f	722	4f	45.1	4f	Chile	22
(1,000–1,380)		(670–810)		(36.5–57.0)			
1,315	6m	745	6m	68.8	6m	Chile	22
(1,220–1,450)		(680–800)		(55–80)			

Note: HB = head and body length (mm), T = tail length (mm), WT = weight (kg). n = sample size. Sex: m = male, f = female, ? = unknown. Mean values are presented only for sample sizes of three or more. Range of values is in parentheses.

*Access To Sunquist & Sunquist 2002 Is Available Here:

<https://archive.org/details/wildcatsofworld00sung>

Mark & Cheryl-Lesley 2002, In the Table 3, Presents Average Weights And Body lengths Of 5 Captured Cougars (2 Males, 3 Females).

Measurement	Adult Males (n=2) ¹	Adult Female (n=3) ¹
Low Neck Circumference ²	44.65 ± 0.21	40.27 ± 1.1
Body Length ²	123.6 ± 20.65	125 ± 3.3
Tail Length ²	75.1 ± 20.36	78.8 ± 4
Total Length ²	194.7 ± 5.94	203.8 ± 0.72
Chest Girth ²	77.2 ± 1.41	71.43 ± 1.07
Skull length ²	26.7 ± 0.85	28.57 ± 4.89
R. front pad width ³	53 ± 3.96	51.47 ± 9.02
R. front pad length ³	38.35 ± 5.02	39.6 ± 7.98
R. hind pad width ³	43.1 ± 0.99	45.37 ± 1.27
R. hind pad length ³	36.95 ± 7.42	34.7 ± 8.81
L. front pad width ³	52 ± 1.13	47.43 ± 3.79
L. front pad length ³	39.05 ± 5.87	35.77 ± 3.32
L. hind pad width ³	43.75 ± 3.61	40.5 ± 2.44
L. hind pad length ³	37.1 ± 5.23	32.33 ± 1.65
Upper canine width @ tips ³	41.6 ± 0.42	43.6 ± 9.56
Upper canine width @ base ³	34.7 ± 5.66	41.17 ± 15.36
Lower canine width @ tips ³	33.7 ± 0.42	32.23 ± 2.91
Gumline recession upper canine ³	1.9 ± 0.14	1.35 ± 0.35
Gumline recession lower canine ³	1.1 ± 0.28	0.85 ± 0.21
Weight ⁴	56.82 ± 1.93	45.91 ± 1.64

¹ average ± standard deviation

² cm

³ mm

⁴ kg

They Also Present Average Weight And body Lengths Of 6 Captured Cougars (5 Males, 1 Female) In Table. 4.

Table 4. Body measurements of cougars registered in Blairmore and Pincher Creek offices.

Measurement	Male Adult (n=5)	Female Adult (n=1)
Low Neck Circumference ¹	54	30
Body Length ¹	130	126
Tail Length ¹	75	80
Total Length ¹	207	206
Chest Girth ¹	81	72
Skull length ¹	28	
R. front foot width ²	57	50
R. front foot length ²	39	40
R. hind foot width ²	47	40
R. hind foot length ²	41	30
L. front pad width ²	57	50
L. front pad length ²	45	40
L. hind foot width ²	50	40
L. hind foot length ²	43	35
Upper canine width @ tips ²	52	40
Upper canine width @ base ²	58	50
Lower canine width @ tips ²	41	35
Gumline recession upper canine ²	2	
Weight ³	64	45.5

*Access to Mark & Cheryl-Lesley 2002 Is available here:

https://www.researchgate.net/publication/260480744_Carnivores_and_Corridors_in_the_Crownsnest_Pass

Ros, Gunson & Martin (1992) Provides weights And Body lengths For Immobilized Cougars; the Average weight being ~72 kg (N=6). And the Average Body length being 139 Cms (N=7) For males. The average Weight was ~45 Kg (N=22) the average body length being 123 Cm (N=22)

Measurement	Male adult		Male subadult		Female adult		Female subadult	
High neck circumference ^a	43(0.80)	7 ^d	38(0.87)	4	34(0.49)	21	31(0.26)	10
Low neck circumference ^a	48(0.94)	7	43(1.45)	4	38(0.76)	20	35(0.42)	10
Body length ^a	139(3.56)	7	131(5.24)	4	123(1.03)	22	119(1.47)	10
Tail length ^a	79(1.53)	7	77(1.96)	4	72(1.12)	22	72(1.58)	10
Total length ^a	218(3.42)	7	208(5.39)	4	192(3.35)	22	191(2.18)	10
Chest girth ^a	81(1.23)	7	72(1.87)	4	68(0.58)	22	65(1.06)	10
Shoulder height ^a	75(0.73)	7	70(1.26)	4	66(0.54)	22	63(0.93)	10
R. front foot width ^b	86(2.82)	7	80(2.02)	4	70(1.02)	21	71(1.83)	10
R. front foot length ^b	94(2.31)	7	90(1.89)	4	84(0.93)	21	81(1.78)	10
R. front pad width ^b	63(0.74)	7	59(0.65)	4	54(0.42)	22	53(0.76)	10
R. foot pad length ^b	50(0.36)	7	47(1.22)	4	43(0.61)	22	42(0.90)	10
R. hind foot width ^b	73(2.31)	7	70(2.43)	4	62(1.20)	21	65(2.15)	10
R. hind foot length ^b	95(0.69)	7	91(2.29)	4	86(0.82)	21	82(1.33)	10
R. hind pad width ^b	53(0.97)	6	51(1.32)	4	45(0.41)	22	44(0.92)	10
R. hind pad length ^b	47(0.80)	7	46(1.04)	4	40(0.41)	22	39(0.69)	10
Head circumference ^a	52(1.00)	7	47(1.71)	4	43(0.41)	22	41(0.53)	10
Head length ^a	28(1.33)	6	26(0.58)	3	24(0.14)	20	23(0.25)	10
Head width ^a	16(0.29)	6	15(0.54)	4	14(0.10)	22	14(0.12)	10
Upper canine width at tip ^b	48(1.03)	5	47(1.60)	4	41(0.47)	19	41(0.66)	10
Upper canine width at base ^b	60(0.00)	3	59(2.85)	3	51(0.44)	18	51(0.43)	10
Lower canine width at tip ^b	41(0.56)	6	41(1.25)	4	35(0.39)	20	35(0.75)	10
Weight ^c	72(1.14)	6	53(3.67)	4	45(0.96)	22	40(1.55)	10

^ameasurements in centimetres.

^bmeasurements in millimetres.

^cmeasurements in kilograms.

^dformat: mean (mean SE) sample size.

*The access to ros, gunson & Martin 1992 is available here:

<https://www.semanticscholar.org/paper/Management-plan-for-cougars-in-Alberta.-Ross-Gunson/ce6ec0c434b2a8902e1d2b9650053c60b07585dd>

The Average Weights and Body Lengths we can conclude for Males After Reviewing the data provided By Sunkuist & Sunkuist 2002, Mark & Cheryl-Iesley 2002, *Ros, Gunson & Martin* (1992) are: 68.9 Kg (N=25) And 135.3 Cm (N=26).

The Average Weights And Body Lengths we can conclude for Females After Reviewing the

Data provided by Mark & Cheryl-lesley 2002 And Ros, gunson & Martin 1992 Are: 45 Kg (N=26) And 122.4 Cm (N=26).

Patagonia

Sunquist & Sunquist (2002), In the table 49, Provides Body Weights for 6 Male cougars And 4 Female cougars from patagonia.

HB	n	T	n	WT	n	Location	Source
1,380 (1,200–1,500)	12m	790 (730–830)	12m	71.0 (57–76)	11m	Canada	179
1,240 (1,080–1,310)	36f	710 (610–820)	36f	44.0 (34–50)	34f	Canada	173
1,332 (1,220–1,420)	9m	832 (720–920)	9m	61.6 (51.8–70.8)	8m	Colorado	73
1,244 (1,060–1,370)	13f	778 (720–840)	13f	44.5 (38.5–49.9)	14f	Colorado	73
1,347 (1,260–1,440)	10m	769 (700–830)	10m	58.9 (56.2–64.4)	10m	New Mexico	58
1,179 (1,110–1,260)	11f	711 (630–770)	11f	30.7 (27.2–36.3)	11f	New Mexico	58
1,386 (1,200–1,680)	34m	690 (605–804)	34m	53.6 (39.0–69.9)	43m	Florida	180
1,261 (1,031–1,410)	25f	658 (570–880)	25f	36.1 (22.7–49.0)	37f	Florida	180
1,198 (1,070–1,360)	7m	679 (640–780)	7m	53.1 (41.5–68.0)	7m	Brazil	54
1,076 (950–1,170)	10f	639 (580–700)	10f	36.9 (25.0–45.0)	10f	Brazil	54
1,220 (1,000–1,380)	4f	722 (670–810)	4f	45.1 (36.5–57.0)	4f	Chile	22
1,315 (1,220–1,450)	6m	745 (680–800)	6m	68.8 (55–80)	6m	Chile	22

Note: HB = head and body length (mm), T = tail length (mm), WT = weight (kg). n = sample size. Sex: m = male, f = female, ? = unknown. Mean values are presented only for sample sizes of three or more. Range of values is in parentheses.

Elboroch et al. Provides Weights for 5 Adult Cougars (3 Males & 2 females) And *Cabello et al.* Provides weights for 5 Adult Cougars (3 Males & 2 females)

Elboroch et al:

Males

- 82 KG
- 73.5 KG
- 66 KG

Females

- 38 KG

- **36 KG**

Cabello et al:

Males

- **70 KG**
- **65 KG**
- **63 KG**

Females

- **40 KG**
- **40 KG**

Franklin et al. 1999 In table 1 Presents Average Body mass for 4 Male cougars and 4 female Cougars.

4.1. Captures, population density, sightings

We captured 13 pumas: three adult males and three adult females (>24 months-old), and four male and three female subadults during the 4-year study. Adult males weighed significantly more than females (76 versus 48 kg; $t=5.23$, d.f.=5, $p=0.002$) and tended to be larger (Table 1).

Table 1. Patagonia puma body-weights (kg) and measurements (mm) for four adult males (including one in captivity) and four adult females (including one shot by hunters) (mean $\pm$ SE)

Sex	<i>n</i>	Body mass	Body length	Tail	Head
F	4	47.5 $\pm$ 6.4	1265 $\pm$ 84	745 $\pm$ 51	254 $\pm$ 32
M	4	75.8 $\pm$ 8.7	1372 $\pm$ 74	778 $\pm$ 23	291 $\pm$ 13

*Access to Franklin et al. 1999 is available here:

https://www.researchgate.net/publication/223526494_Ecology_of_the_Patagonia_puma_in_southern_Chile_Biol_Conserv

The Average Weights and Body Lengths we can conclude for Males After Reviewing the data provided By Sunquist & Sunquist 2002, Elboroch et al, Cabello et al And Franklin et al. 1999 are: 70.3 Kg (N=16) And 131 Cm (N=6)

The Average Weights And Body Lengths we can conclude for Females After Reviewing the Data provided by Sunkist & Sunkist 2002, Elbroch et al, Cabello et al And Franklin et al. 1999 Are: 41.3 Kg (N=12) And 122 Cm (N=4).

CONCLUSION

The patagonian Cougar And the Cougars from alberta are Indeed, very Large felids; weighing nearly 10 kg More than a South african leopard (Sunkist & Sunkist 2002). However, the Patagonian Cougar is Slightly Heavier And Slightly Shorter than It's Canadian Counter part; With patagonian toms Weighing ~2 Kg more than Toms from alberta And being 4 Cms shorter in Length. In sows, The Canadian cougar has the edge over the Patogonian Cougar; Being 4 Kg Heavier And Being equal in length.