

Final, October 2, 2008

Cougar Population Assessment and Harvest Management Matrix– Summary Perspective (2008-2011), New Mexico Department of Game and Fish. Baseline cougar management is set at 20% removal for each zone.

Zone	GMUs	Est. Hab. ^a (km ²)	Pop Est. ^{bc}	Management Objectives	Sustainable Total Mortality relative to Mgmt. Obj. ^{de}	25% Female Sub-limit	2007-08 Harvest (females)	5 yr. avg. Removal	2007-08 Potential Pop. Growth
A	2, 7	13,742	108-161	Manage at a sustained pop. of 135	27	7	11 (5)	12	16 (2)
B	5, 50, 51	6,074	59-87	Manage at a sustained pop. of 73	15	4	13 (5)	16	2 (0)
C	43-46, 48, 49, 53-55	20,291	211-315	Manage at a sustained pop. of 263	53	13	41 (15)	35	12 (0)
D	41, 42, 47, 59	21,062	51-75	Manage at a sustained pop. of 63	13	3	5 (1)	6	8 (2)
E	9, 10	13,046	119-177	Manage at a sustained pop. of 148	30	8	7 (3)	2	23 (5)
F	6, 8	8,321	74-112	Manage at a sustained pop. of 93	19	5	12 (3)	16	7 (2)
G	13, 14, 17	18,747	185-275	Manage at a sustained pop. of 230	46	12	18 (7)	19	28 (5)
H	19, 20	17,636	89-130	Manage at a sustained pop. of 110	22	6	2 (0)	9	20 (6)
I	18, 36-38	21,586	136-204	Manage at a sustained pop. of 170	34	9	12 (5)	10	22 (4)
J	15, 16, 21, 25	27,758	275-410	Manage at a sustained pop. of 343	69	17	28 (12)	28	41 (5)
K	22-24	11,792	153-228	Manage at a sustained pop. of 191	38	10	14 (1)	19	24 (9)
L	26, 27	8,159	54-77	Manage at a sustained pop. of 66	13	3	4 (3)	10	9 (0)
M	31-33, 39, 40	54,290	140-209	Manage at a sustained pop. of 175	35	9	3 (0)	2	32 (9)
N	4, 52	2,937	38-57	Manage at a sustained pop. of 48	10	3	3 (1)	2	7 (2)
O	12	5,994	24-36	Manage at a sustained pop. of 30	6	2	0 (0)	1	6 (2)
P	56-58	8,744	45-68	Manage at a sustained pop. of 57	11	3	8 (3)	5	3 (0)

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Q	28, 29, 30, 34	17,816	184- 274	Manage at a sustained pop. of 229	46	12	21 (12)	30	25 (0)
Totals:		289,507	2,041- 3,043		490	123	202 (76)	195 (85 females)	292 (47)

^a The quantity of the habitat was derived from a model designed by G&F, APNM, and Birdseyeviewgis, the habitat is classed as core, minimum patch, dispersal, and poor/marginal with core having an adult cougar density of 2.0-3.0/100km², min. patch having an adult cougar density of 0.89-1.2/100km², dispersal having an adult cougar density of 0.4-0.6/100km² and poor/marginal having an adult cougar density of 0.2-0.3/100km². In this model 92% of the state is considered cougar habitat, with 24% as the core, 4% as minimum patch and dispersal, and 60% being classed as poor/marginal.

^b The middle of the population estimate range is used for all management objectives and removal/harvest level calculations and may not reflect the true value for the population

^c Derived from density estimates as described in a.

^d Allowable sport harvest occurs in conjunction with other sources of mortality (i.e. depredation, roadkill, illegal take, private land kills, bighorn sheep removals, etc.) and does not exceed allowable sustainable total mortality, both harvest limits include 10% brackets below the harvest limit or sustainable harvest limit to allow for zone closures before limits have been reached

^e Female sub-limits restrict the female harvest to no more than 25% of the total harvest

References:

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