Table 38. Approximate offtake, years of effort, and cost required to eliminate populations of 1,000 and 500 mountain goats (*Oreamnos americanus*) based on logistic growth models.[a]

Year	N	(O)	C	Annual cost	1.1	Annual cost	1.5	Annual cost	2.0	Annual cost	N	(O)	S_c	$S_{1.1}$	$S_{1.5}$	$S_{2.0}$
								Cost scaling of offtake[b]							Cost scaling of offtake	
						$r_m = 0.24$								$r_m = 0.10$		
1	1,000	(500)	0.1	50.0	0.10	50.0	0.10	50.0	0.1	50.0	1,000	(500)	50.0	50.0	50.0	50.0
2	584	(292)	0.1	29.2	0.11	32.1	0.15	43.8	0.2	58.4	535	(267)	26.7	29.4	40.1	53.4
3	350	(175)	0.1	17.5	0.12	21.0	0.23	40.3	0.4	70.0	290	(145)	14.5	17.4	33.4	58.0
4	212	(106)	0.1	10.6	0.13	13.8	0.34	36.0	0.8	84.8	158	(79)	7.9	10.3	26.9	63.2
5	130	(65)	0.1	6.5	0.15	9.8	0.51	33.2	1.6	104.0	86	(43)	4.3	6.5	21.9	68.8
6	80	(40)	0.1	4.0	0.16	6.4	0.76	30.4	3.2	128.0	47	(23)	2.3	3.7	17.5	73.6
7	49	(24)	0.1	2.4	0.18	4.3	1.14	27.4	6.4	153.6	26	(13)	1.3	2.3	14.8	83.2
8	31	(15)	0.1	1.5	0.20	3.0	1.71	25.7	12.8	192.0	14	(14)	1.4	2.8	23.9	179.2
9	20	(20)	0.1	2.0	0.21	4.2	2.56	51.2	25.6	512.0	0					
10	0															
Total		(1,237)		123.7 (618.5)[c]		144.6 (723.0)		338.0 (1,690.0)		1,352.8 (6,764.0)		(1,084)	108.4 (542.0)	122.4 (612.0)	228.5 (1,142.5)	629.1 (3,147.0)
1	500	(250)	0.1	25.0	0.10	25.0	0.10	25.0	0.1	25.0	500	(250)	25.0	25.0	25.0	25.0
2	301	(150)	0.1	15.0	0.11	16.5	0.15	22.5	0.2	30.0	271	(135)	13.5	14.9	20.3	27.0
3	184	(92)	0.1	9.2	0.12	11.0	0.23	21.2	0.4	36.8	148	(74)	7.4	8.9	17.0	29.6
4	113	(56)	0.1	5.6	0.13	7.3	0.34	19.0	0.8	44.8	81	(40)	4.0	5.2	13.6	32.0
5	70	(35)	0.1	3.5	0.15	5.3	0.51	17.9	1.6	56.0	45	(22)	2.2	3.3	11.2	35.2
6	43	(21)	0.1	2.1	0.16	3.4	0.76	16.0	3.2	67.2	25	(12)	1.2	1.9	9.1	38.4
7	27	(13)	0.1'	1.3	0.18	2.3	1.14	14.8	6.4	83.2	14	(14)	1.4	2.5	16.0	89.6
8	17	(17)	0.1	1.7	0.20	3.4	1.71	29.1	12.8	217.6	0					
9	0															
Total		(634)		63.4 (317.0)[c]		74.2 (371.0)		165.5 (827.5)		560.6 (2,803.0)		(547)	54.7 (273.5)	61.7 (308.5)	112.2 (561.0)	276.8 (1,384.0)

[a] N = numbers present in each subsequent year calculated from $N_x\lambda$, where $\lambda = 1 + r$ for "birth pulse" populations (Eberhardt 1987) and where $r = r_m (1 - N/K)$ (Caughley 1977:179) and $K = 1,650$ goats. Offtake (O) = 50% of the population is removed annually.

[b] Cost is in thousands of dollars. Initial cost is $100/goat removed; cost scaled either to remain constant (C), increase 10%, (factor of 1.1), increase 50% (1.5), or double (2.0) each time the population is halved. S = sum of annual costs. Multiplier columns omitted for $r_m = 0.10$ examples.

[c] Sum of campaign expenditure using initial removal cost of $500/goat.