



## 2009 AERIAL ELK SURVEY

By  
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**Introduction** – An annual aerial elk survey was initiated in 1991 to gain more information on the status and distribution of Arkansas' elk herd. Survey objectives were to: 1) obtain reliable information on elk distribution; 2) obtain data on bull/cow and calf/cow ratios; and 3) obtain a minimum population estimate. The survey was again conducted in early 2009.

**Methods** – A Bell Jet Ranger helicopter was used for the survey instead of a Hughes 269B that has been used in previous years. Changes in procedures for 2009

include: 1) Each of the four sections were only surveyed once due to poor weather conditions and a severe ice storm in the Ozarks; and 2) all surveys were conducted in mid to late March and early April, which is approximately one month later than in previous years.

**Results (all elk survey areas)** – A total of 243 elk were observed which is a 30% decrease from the 2008 survey of 345 elk. Antlered bulls totaled 53 (13 spikes, 40 branched) with antlerless elk totaling 190 (149 cows and 41 calves). The bull/cow ratio was 36 bulls per 100 cows and the calf/cow ratio was 28 calves per 100 cows. The largest elk group observed included 44 animals and the average group size for 20 elk groups observed was 11.4. The 2009 survey along the Buffalo River corridor did decrease in numbers; however, this decrease may in part be due to performing only one survey, and lack of ability to locate additional elk with radio telemetry equipment as in years past. A total of 18 elk were observed in elk hunt zone A. No elk were observed in zone A during the 2008 aerial survey. The minimum count in 2007 was 15. No elk were observed in elk zone B for 2009.

**Results (original BNR corridor)** – The original BNR corridor survey (includes the Gene Rush Wildlife Management Area (GRWMA)) was initiated on March 13 and completed on March 18. A total of 225 elk was observed including 96 (43%) in section one (Boxley Valley to Pruitt), 111 (49%) in section two (Pruitt to mouth of Richland Creek) and 18 (8%) in section 3 (mouth of Richland Creek to the Hwy 65 bridge).

Antlered bulls totaled 50 (13 spikes, 37 branched) with antlerless elk totaling 175 (136 cows, 39 calves). This compares to 50 antlered and 286 antlerless in 2008. Branch antlered bulls totaled 37 which is three more than the number (34) observed in 2008 and 23 less than the number observed in 2007 (60). Spike bulls observed decreased by 3 (18%) compared to the number observed in 2008 (16). Total bulls observed in 2009 remained unchanged from the 2008 aerial survey. Antlerless elk observed decreased by 39% (111) from the 2008 level. The numbers of cows observed decreased by 88 (39%) and the number of calves observed decreased by 23 (37%). The bull/cow ratio was 37 bulls per 100 cows, which is higher than the ratio observed in 2008 (22:100). The calf/cow ratio was 29 calves per 100 cows, which is very similar to the ratio observed in 2008 (28:100). The 2009 bull/cow ratio was slightly below the minimum target ratio of 40:100, and the calf/cow ratio was considerably lower than the minimum 40 calves/100 cows established in the 2001 elk management plan.

A total of 19 elk groups were observed which ranged in size from one to 44. The average elk group size was 11.8, which is lower than the average in 2008 (18.7). Most elk were observed in open habitat (hay fields, pastures, old fields); however, a few were observed in wooded areas. A total of 111 elk were observed on the GRWMA (including Richland Valley) which is an increase of 27 (24%) from the number (84) observed in 2008. In 2007 104 elk were observed on GRWMA.

The 2009 aerial survey was the first where Richland Valley had high quality elk habitat established, and the second year with no beef cattle grazing. A total of 52 elk were observed in 2009. This results in a 92% increase from the 2008 observation of 4 elk.

Eight (16%) of 50 branch antlered bulls were classed as mature breeding bulls (6X6 or better, dark heavy antlers, large body size). In 2008 and 2007, 17 (50%) of 34 and 20 (33%) of 60 branch antlered bulls were classed as mature breeding bulls, respectively. Eighty-seven (87) of the elk were observed in Boxley Valley, elk hunt zone 4 (18) and elk hunt zone 3 (59). No elk were counted in elk hunt zone 2 and only 9 elk were seen in elk hunt zone 1.

**Results (additional elk surveys)** An additional aerial survey of private land (elk hunt zone A and B) in southwest Boone southeast Carroll, southeast Madison and southwest Newton Counties resulted in an observation of 18 elk (3 bulls, 13 cows, and 2 calves) in elk hunt zone A. No elk were found in elk zone B. No elk were observed in elk zone A in 2008 and fifteen (15) was found in the zone in 2007 and 2006.

**Results (deer and turkey sightings)** During the survey, sightings of deer and turkey are recorded. A total of 93 deer and 149 turkeys were observed during the original BNR corridor survey. This compares to 224 deer and 239 turkeys in 2008, 70 deer and 170 turkeys in 2007, 116 deer and 103 turkeys in 2006, and 258 deer and 167 turkeys in 2005. An additional 37 deer and 44 turkeys were

observed on private land (elk hunt zones A and B) in southwest Boone, southeast Carroll, southeast Madison and southwest Newton Counties.

HELICOPTER ELK COUNT (1991-2009)														
Buffalo River Corridor							Private Land							
Year	Antlered Bulls	Cows	Calves	Total	Bull/Cow Ratio	Calf/Cow Ratio	Zone	Antlered Bulls	Cows	Calves	Total	Bull/Cow Ratio	Calf/Cow Ratio	Grand Total
1991	18	41	17	76	44	42	A	No survey						76
1992	35	78	31	144	45	40	A	No survey						144
1993	35	63	32	130	56	51	A	3	7	2	12	43	29	142
1994	30	78	32	140	39	41	A	0	0	0	0	--	--	140
1995	49	82	28	159	60	34	A	1	1	0	2	--	--	161
1996	46	90	45	181	51	50	A	3	14	6	23	21	43	204
1997	41	99	39	179	41	39	A	6	10	6	22	60	60	201
1998	46	100	39	185	46	39	A	7	21	12	40	33	57	225
1999	63	113	53	229	56	47	A	7	22	11	40	32	50	269
2000	49	146	48	243	34	33	A	7	25	10	42	28	40	285
2001	34	131	32	197	26	24	A	5	20	4	29	25	20	226
2002	45	133	48	226	34	36	A	0	14	2	16	--	14	242
2003	20	141	43	204	14	31	A	3	10	3	16	30	30	220
2004	70	133	47	250	53	35	A	2	10	4	16	20	40	266
2005	80	171	48	299	47	28	A	1	7	5	13	14	71	312
2006	74	176	56	306	42	32	A	3	9	3	15	33	33	321
2007	84	187	60	331	45	32	A	5	5	5	15	100	100	346
2008	50	224	62	336	22	28	A	0	0	0	0	--	--	345
							B	9	0	0	9	--	--	
2009	50	136	39	225	37	29	A	3	13	2	18	23	15	243
							B	0	0	0	0	--	--	

