SMALL GAME, UPLAND GAME BIRD, and FURBEARER

JOB COMPLETION REPORTS

Statewide Summary

Period Covered: 1982-2023

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SMALL GAME JCR 1982-2023

INTRODUCTION

The Wyoming Game and Fish Department designates cottontail rabbits, snowshoe hares, and red, gray and fox squirrels as small game. The small game designation means there are established hunting seasons with limits on how many small game animals a hunter can kill each day and possess. There are six management areas in the state (Figure 1) that aid in data analysis, but there are no differences in hunting seasons between the management areas.

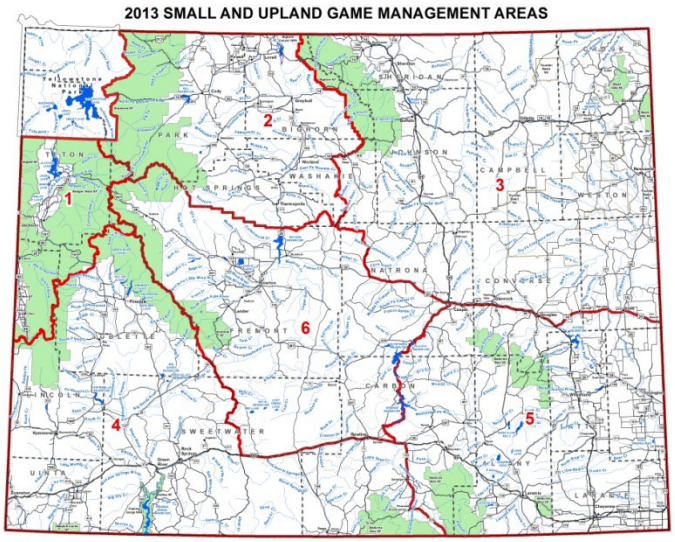


Figure 1. Wyoming Game Bird and Small Game Management Areas

Sales of small game/game bird licenses peaked in 2006, and have varied between that high and about 25,000 licenses since then (Figure 2), although trends in these license sales are complicated by the variety of licenses that can be purchased. There are daily, annual, and lifetime licenses. The annual license can be just for game birds, just for small game, or combined. The lifetime game bird/small game license can also be combined with a fishing license.

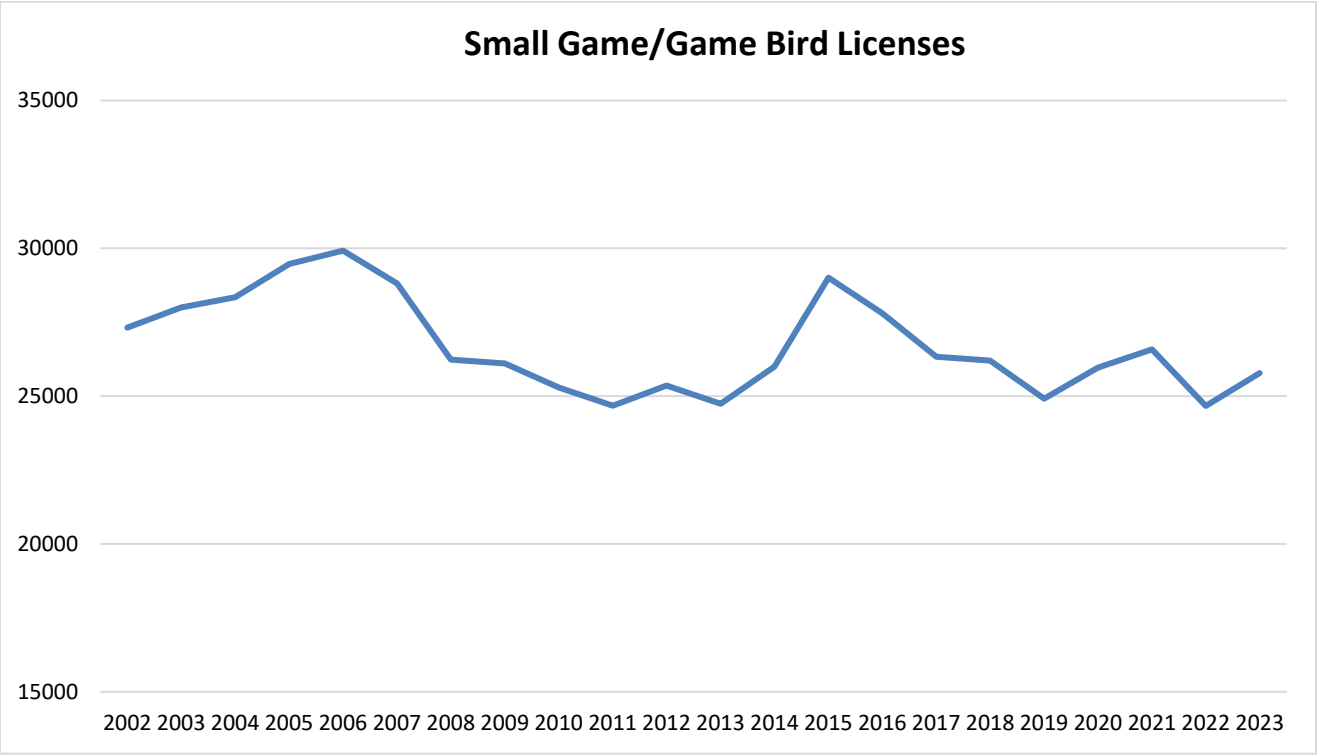


Figure 2. Wyoming small game/game bird licenses sold, 2002-2023.

Cottontail rabbits and snowshoe hares are noted for periodic fluctuations in population levels. No estimates of actual population numbers are made, but the effort that hunters put forth in hunting rabbits, and hares to a lesser degree, helps to give an indication of population trends. These fluctuations in small game numbers also have important implications for other wildlife. Small game animals are preyed upon by numerous terrestrial and avian predators, but the two smaller felids in Wyoming, bobcat and lynx, are closely tied to population levels of rabbits and snowshoe hares, respectively. Lynx have been listed as a threatened species under the Endangered Species Act since March, 2000.

Human interest in hunting for small game is greatly influenced by the annual population levels. When populations are high, interest increases as hunting is successful, while the opposite is true when populations are low. In either case, the harvest is not detrimental to the overall populations or their continued presence in the state. There has been a general decline in harvest for all small game species since 1982. This decline could be influenced as much by demographic and interest changes of the hunting public as it is by small game population reductions.

The upland game bird and small game hunting season regulation is attached as Appendix 1.

A number of studies have been conducted on Wyoming's small game species and several publications and books provide detailed accounts of their biology, habitat, distribution, abundance, economic value, and other information. A partial list of small game references with Wyoming-specific information are listed in Appendix 2.

Hunting seasons for small game run concurrently and have changed little since 1982. They begin September 1 each year, and have ended on the last day of February or the first of March until 2018, when the closing date was changed to March 31. In addition, small game species may be hunted by falconers year round. The daily and possession bag limits have also changed only once. The daily and possession limits for cottontail rabbits increased from 5 rabbits daily and 15 in possession to 10 and 20 in 1985. The daily and possession limits for snowshoe hare have remained at 4 hares daily and 8 in possession, and the squirrel limits have remained steady at 10 squirrels daily and 20 in possession. Falconry hunters have the same limits as regular hunters between September 1 and March 1. The remainder of the year the daily and possession limits drop to 1 and 2 respectively. Generally, falconry harvest is minimal.

COTTONTAIL RABBIT

Cottontail rabbits can be hunted throughout the state. Wyoming is home to three species: Mountain Cottontail, Desert Cottontail, and Eastern Cottontail. Even with the generalities of habitat preferences implied by their names, they are difficult to distinguish and are managed as one species. The mountain and desert cottontails are considered to have statewide distributions. Eastern cottontails have a minimal presence in the extreme southeast corner of Wyoming. Cottontails in Wyoming use a wide variety of habitats, from low elevation desert scrub to higher elevation forests. They show a preference for shrubby areas and grasslands with varying densities of shrubs. Some deciduous and conifer woodlands, usually with a shrub component, are also used. They also take advantage of habitats provided by humans in towns and rural areas. There are also other species of rabbit and hares in Wyoming, but they are not designated as small game animals. The Pygmy Rabbit in the sagebrush country of southwest Wyoming is a non-game species, and there is no hunting for it. White-tailed and black-tailed jackrabbits inhabit most of non-forested Wyoming, but are designated as predatory animals that can be killed without season or bag limits for crop protection.

Hunting seasons for rabbits have changed little since 1982. They begin September 1 each year, and ended on the last day of February or the first of March until 2018, when the end date was moved to the end of March. The daily and possession bag limit has changed only once. The limits for cottontail rabbits increased from 5 rabbits daily and 15 in possession to 10 daily and 20 in possession in 1985.

The Department compiles rabbit harvest data from the 6 common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Cottontails occupy suitable habitat in all areas. The highest percentage of rabbit hunter activity (Fig 2) and harvest (Fig 3) was in Area 5 in 2023, with a fairly even distribution of hunting in areas 3, and 4. Area 1 generally has little rabbit hunting reported (Table 1).

Table 1. Cottontail harvests within individual management areas in 2023.

Management Area	Harvest	Percent of Total
1	471	5.2
2	1012	11.3
3	1840	20.5
4	2032	22.6
5	2493	27.7
6	1143	12.7

Harvest rate (rabbits per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is downward, similar to other small game (Fig. 4).

At the statewide level, harvest rates fluctuated between 0.6 and 3.5 rabbits per hunter-day (avg. = 1.7) throughout the period of record (Table 4). There is a declining trend in harvest rates since 1982, but

there are also years with increased harvest rates that correspond to years with higher populations, as indicated by total harvest. Hunting pressure does not appear to affect harvest rates.

Throughout the period of record, numbers of rabbit hunters has decreased (Fig and Table 2), and combined with a decreasing trend in harvest rate (Fig and Table 4) there has been a huge decrease in total harvest since 1983 (Fig and Table 3). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of rabbit hunters and total harvests. The 2023 harvest survey had the following results: total hunter numbers (3,175) were less than half the long-term average (7,320) and below the most recent 10-year average (4,528), total harvest (8,991) was well below the long-term average (68,362) and the 10-year average (25,768), and harvest rate (0.6) was below the long-term average (1.7) and the 10-year average (1.3). A look at each management area shows downward trends in all areas for hunter numbers and harvest.

Table 2. Cottontail rabbit hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	102	2755	4653	4816	5083	4346	21,755
1983	113	3082	7451	5008	4655	4938	25,247
1984	40	1939	2371	3077	2767	1913	12,107
1985	46	1490	1270	2298	1699	1219	8,022
1986	42	1100	752	1995	1501	1155	6,545
1987	42	972	453	3274	1035	1102	6,878
1988	59	1319	976	4434	1360	1639	9,787
1989	39	1461	1052	3422	1291	1303	8,568
1990	42	1842	1859	3987	1439	1603	10,772
1991	68	1891	1872	4602	2014	1969	12,416
1992	51	1109	1152	2728	1488	1092	7,620
1993	49	676	666	1837	1089	944	5,261
1994	46	570	413	1431	702	630	3,792
1995	37	433	396	1216	622	514	3,218
1996	No Data						
1997	35	1594	1586	2895	1584	923	8,617
1998	2215	2026	815	2353	1376	1213	9,998
1999	287	1939	1295	3320	1762	1364	9,967
2000	34	1469	1630	2329	1149	1161	7,772
2001	840	1184	1235	2994	991	1130	8,374
2002	145	1039	1009	1949	794	802	5,738
2003	184	755	564	1787	692	614	4,596
2004	42	629	1288	2434	843	840	6,076
2005	67	1614	2155	1826	1741	1563	8,966
2006	23	1432	2250	2797	1176	1279	8,957
2007	87	1321	1744	2195	1045	1148	7,540
2008	47	1150	939	1675	971	858	5,640
2009	39	1090	795	1844	993	849	5,610
2010	40	583	374	1363	831	616	3,807
2011	53	618	435	1098	617	664	3,485
2012	24	537	553	1136	740	571	3,561
2013	46	616	538	1278	955	716	4,149
2014	95	975	807	1450	933	858	5,118
2015	126	1017	1139	2625	1117	901	6,925
2016	135	1153	1014	2231	1079	982	6,594
2017	88	881	721	1270	729	772	4,461
2018	165	2494	2867	6981	2611	3209	18,328
2019	45	2840	1337	3193	2602	3128	13,145
2020	0	559	485	798	707	683	3054
2021	59	522	461	879	716	689	3,214
2022	91	640	652	1039	1275	979	4,577
2023	276	415	621	790	757	533	3,175

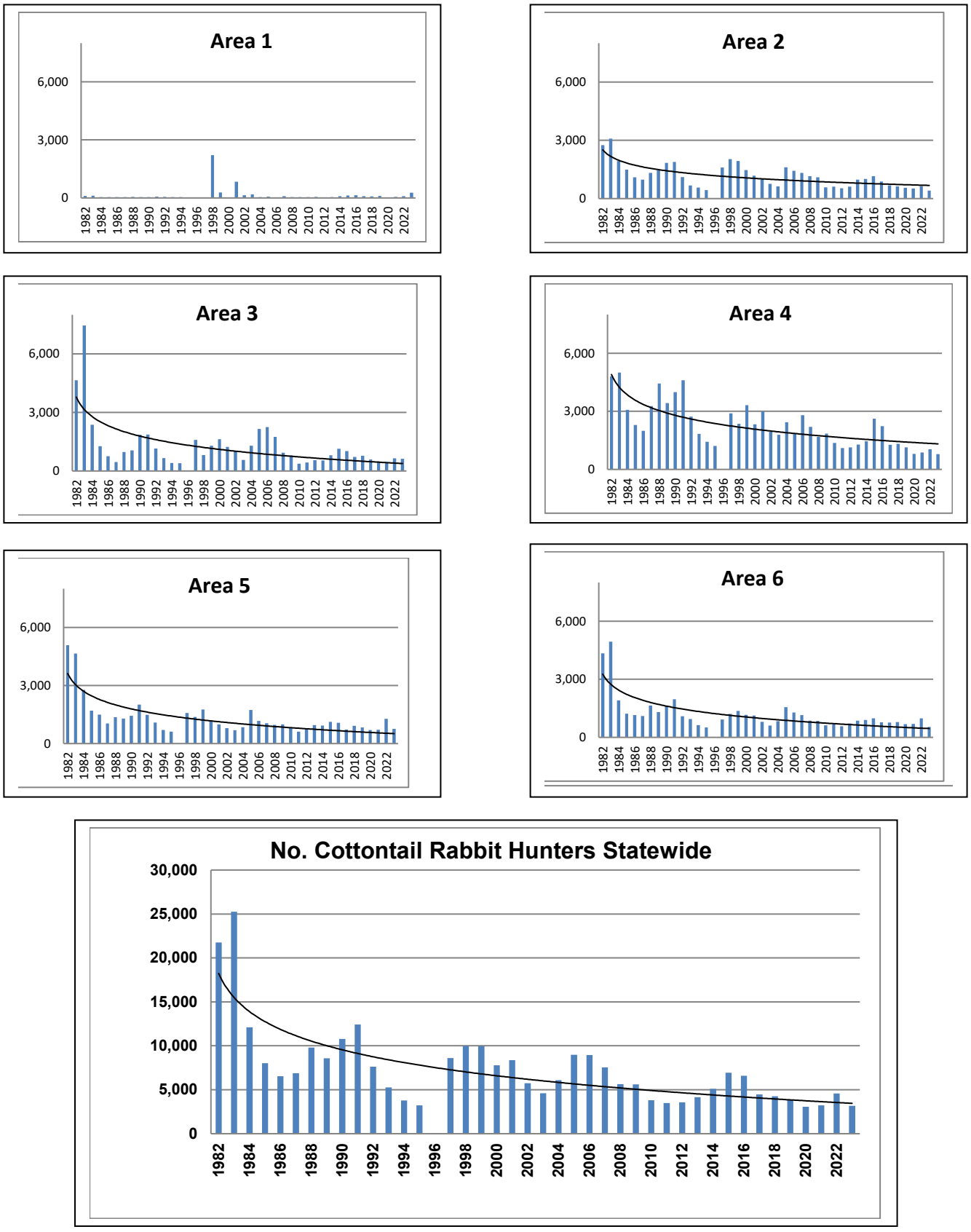


Figure 2. Cottontail rabbit hunters in each management area and statewide.

Table 3. Cottontail rabbit harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	1526	42317	64624	61256	67781	69669	307,173
1983	2909	63289	157746	83055	66965	88873	462,837
1984	199	32670	24826	29096	23363	17518	127,672
1985	39	14849	5064	10347	8676	8227	47,202
1986	305	5137	2050	13350	5726	7083	33,651
1987	109	10960	3198	56946	7826	14118	93,157
1988	523	21787	9989	67297	10324	20853	130,773
1989	422	25968	13033	50590	8863	15469	114,345
1990	327	39434	28162	65997	15759	25734	175,413
1991	325	31713	29115	68583	26295	29064	185,095
1992	225	21005	16710	27668	19197	14141	98,946
1993	238	5377	2532	6960	5409	3536	24,052
1994	177	2318	1142	5509	1982	2659	13,787
1995	85	2693	1362	9373	2501	2583	18,597
1996	No Data						
1997	106	10057	9270	20493	9689	7302	56,917
1998	464	17143	4260	15603	7133	8650	53,253
1999	826	18995	7627	17302	7466	8721	60,937
2000	24	9539	10701	12479	4578	6886	44,207
2001	674	7658	8300	14800	3284	5158	39,874
2002	974	4989	2416	9876	2325	2489	23,069
2003	1179	4838	4814	14176	3921	4355	33,283
2004	77	4937	10457	19628	5166	7266	47,531
2005	370	15447	28996	17419	12389	15205	89,826
2006	524	13767	26954	24336	8510	12678	86,769
2007	626	11606	16808	17827	4856	8788	60,511
2008	208	9662	4223	8391	4031	4830	31,345
2009	455	7536	2712	8136	3441	4703	26,983
2010	142	3019	994	7976	2347	2234	16,712
2011	208	2782	1524	3237	2013	2038	11,802
2012	87	2330	1951	5137	1832	1688	13,025
2013	37	2303	1586	7598	2777	2115	16,416
2014	342	7140	4790	11764	5401	6473	35,910
2015	1129	8936	11256	33903	7343	7954	70,521
2016	1204	11168	10735	21106	4502	6973	55,688
2017	129	3925	3498	8500	2865	3575	22,492
2018	165	2494	2867	6981	2611	3209	18,328
2019	45	2840	1337	3193	2602	3128	13,145
2020	0	2450	1332	1836	2430	1506	9554
2021	19	1485	1128	2308	1777	1316	8,033
2022	93	2034	1911	4131	3615	3229	15,013
2023	471	1012	1840	2032	2493	1143	8,991

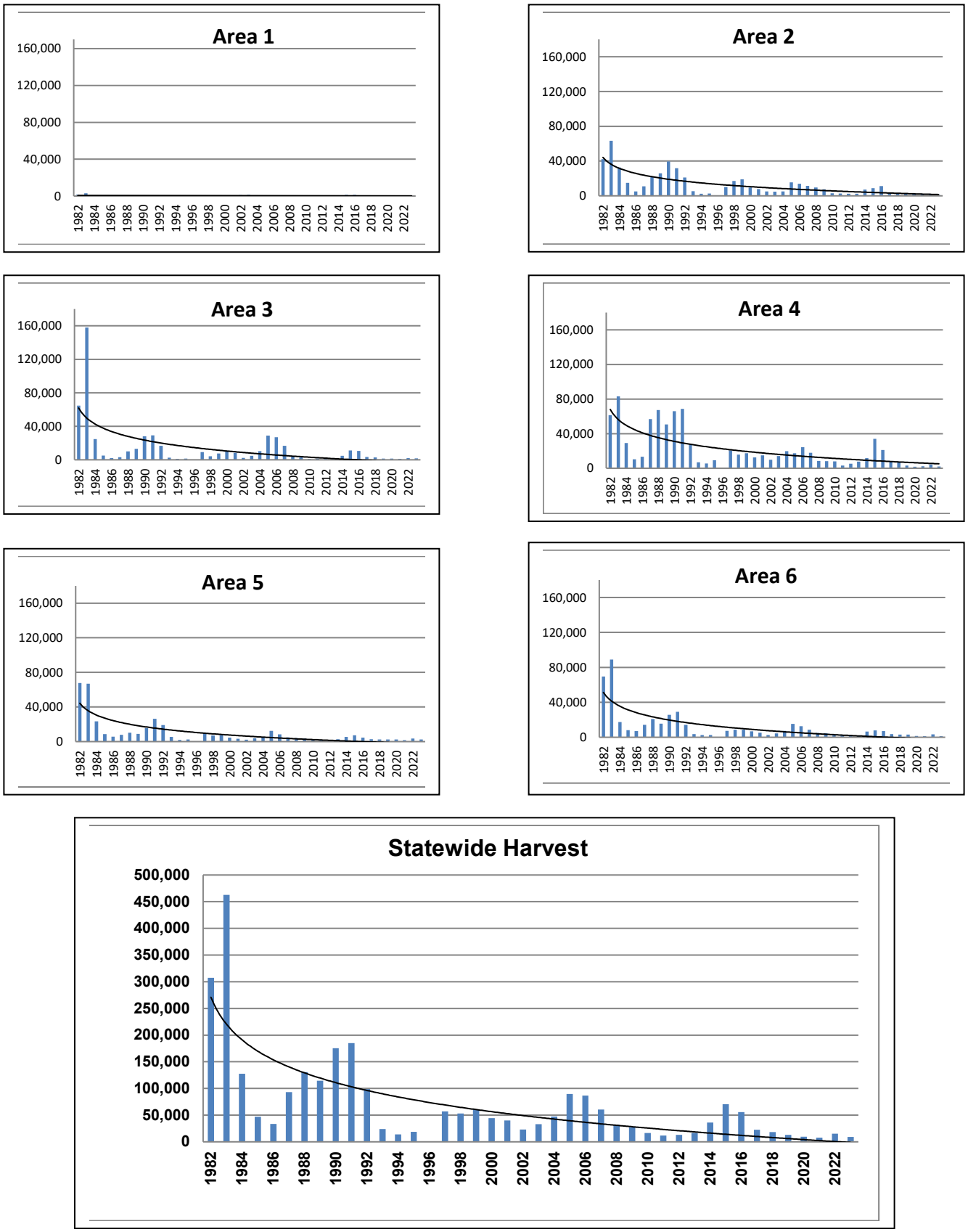


Figure 3. Cottontail rabbit harvest in each management area and statewide.

Table 4. Cottontail rabbit harvest rate (rabbits per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	3.0	2.5	2.7	2.1	2.3	2.9	2.5
1983	2.7	4.0	3.8	2.9	2.5	4.2	3.4
1984	1.1	2.9	1.9	1.5	1.7	1.7	1.9
1985	0.2	2.0	0.8	0.8	1.0	1.5	1.2
1986	1.9	1.0	0.4	1.2	0.8	1.2	1.0
1987	0.7	2.2	1.5	2.7	1.6	2.5	2.4
1988	3.1	2.8	2.9	2.8	1.7	2.7	2.7
1989	1.5	3.2	2.5	2.6	1.6	2.3	2.5
1990	1.3	4.1	4.4	3.5	2.3	3.2	3.5
1991	1.2	3.7	3.6	3.0	2.4	3.3	3.1
1992	1.4	2.9	2.7	1.9	2.6	2.5	2.4
1993	1.3	1.2	0.7	0.5	1.0	0.8	0.8
1994	0.7	0.6	0.5	0.6	0.6	0.7	0.6
1995	0.2	0.9	0.8	1.1	0.7	0.8	0.9
1996							
1997	0.3	2.0	1.7	1.9	1.9	2.2	1.9
1998	0.1	1.8	1.6	1.8	1.2	2.0	1.5
1999	0.8	2.1	1.8	1.4	1.3	1.7	1.6
2000	0.1	2.2	2.0	1.7	1.7	2.3	2.0
2001	0.2	2.0	2.3	1.5	0.6	1.4	1.4
2002	1.1	1.0	0.6	1.1	1.0	0.7	0.9
2003	1.8	1.5	2.0	2.0	1.4	2.1	1.8
2004	0.4	2.2	2.3	2.4	1.6	2.9	2.3
2005	2.2	2.7	4.1	2.6	2.2	2.7	2.9
2006	7.6	3.0	3.1	2.7	1.8	3.6	2.8
2007	2.2	3.0	2.7	2.3	1.5	2.6	2.4
2008	2.0	2.5	1.3	1.5	1.1	2.1	1.7
2009	2.7	2.4	1.1	1.3	0.9	1.9	1.5
2010	0.6	1.7	0.5	1.5	0.9	1.2	1.2
2011	0.8	1.3	0.8	0.8	0.8	0.8	0.9
2012	1.7	1.3	0.8	1.4	0.8	1.0	1.1
2013	0.4	1.0	1.1	1.5	1.0	1.0	1.2
2014	1.6	2.5	2.1	2.3	1.6	2.4	2.2
2015	2.6	2.7	2.6	3.2	1.3	2.6	2.6
2016	4.2	2.8	2.5	2.4	1.1	2.3	2.3
2017	1.0	1.3	1.3	1.9	1.2	1.9	1.5
2018	0.5	1.1	1.1	1.4	0.9	1.1	1.1
2019	0.1	0.8	0.6	0.7	0.7	1.1	0.8
2020	0	0.8	0.6	0.5	0.6	0.6	0.6
2021	0.1	0.6	0.7	0.5	0.5	0.5	0.5
2022	0.1	0.7	0.6	0.6	0.5	0.7	0.6
2023	0.7	0.6	0.7	0.6	0.7	0.5	0.6

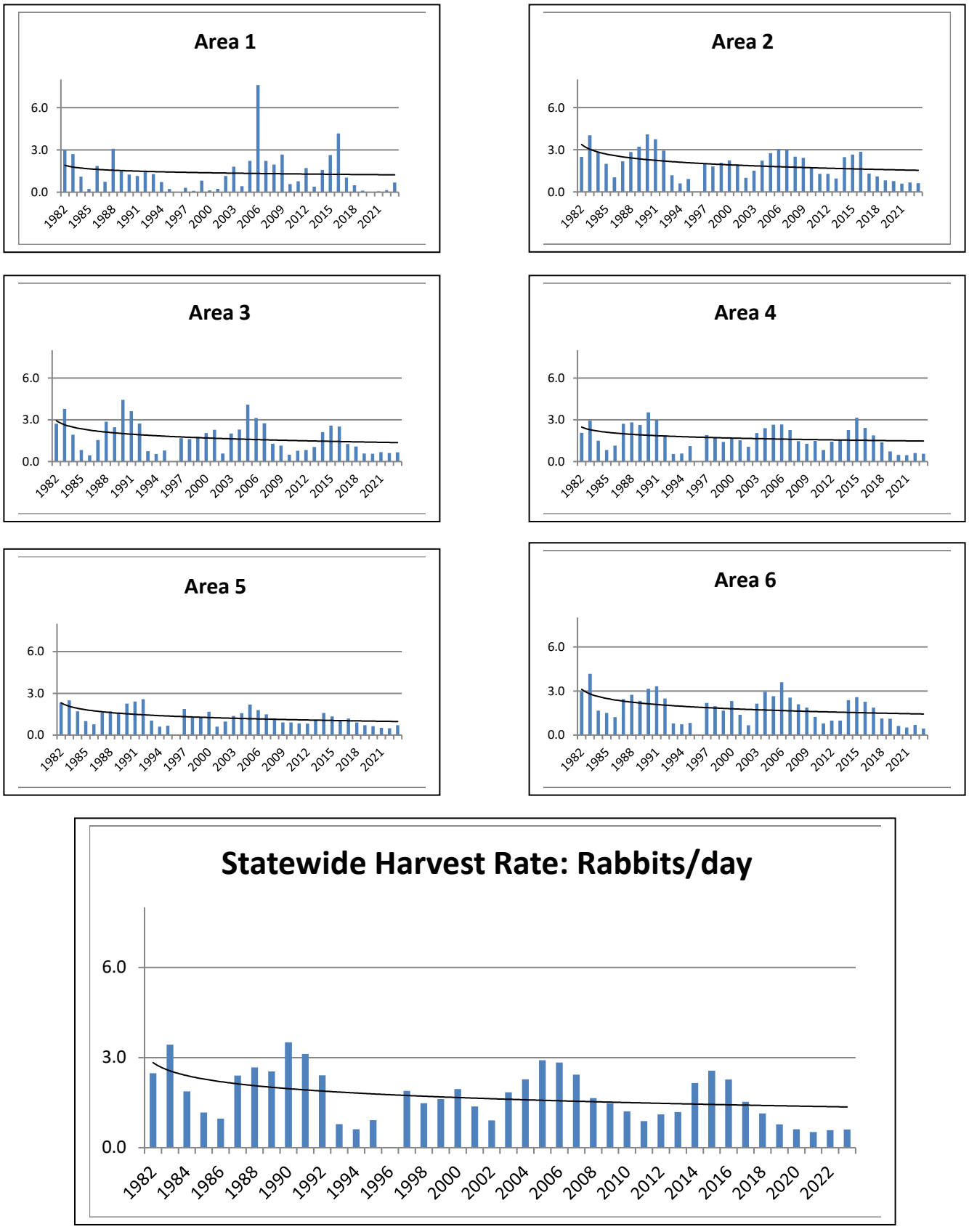


Figure 4. Cottontail rabbit harvest rate (rabbits per hunter-day in each management area and statewide).

SNOWSHOE HARE

Snowshoe hares are found in all of the major mountain ranges of Wyoming except the Black Hills in the northeast. The greatest concentration of snowshoe hares is in the western ranges. They are known for cyclic fluctuations in population numbers with large amplitudes. Although some population changes can be detected through harvest numbers in Wyoming, there don't appear to be the extreme changes that are seen in populations further north. Hunting for snowshoe hares can be almost absent during low population years, but even during good years is not a high priority among most hunters. In Wyoming, snowshoe hares use coniferous forest, along with aspen and willow communities. Within those areas, they seek out places with vegetative structure in the form of shrubs or younger trees for thermal shelter and cover from predators.

Hunting seasons for snowshoe hares have changed little since 1982. They begin September 1 each year, and ended on the last day of February or the first of March until 2018, when the end date was moved to the end of March. The daily and possession limits for snowshoe hare were 4 hares daily and 8 in possession since 1982. In 2017 the daily and possession limits were increased to 10 and 20.

The Department compiles snowshoe hare harvest data from the six common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Snowshoes occupy suitable habitat in all areas. The majority of hunter activity in 2023 (Fig 2) and harvest (Fig 3) is in areas 5, 3 and 4 (Table 1). Management Areas 4 and 3 have averaged about the same percent of total harvest since 1982. Area 5 has seen a large reduction in average harvest. From 1982-1991 the average harvest was 515, while over the last ten years the average has been 104. In the high harvest year of 1989, Area 5 had over 28% of the state harvest, which is about the same as it was in 2023, but at a much lower harvest number. These harvest statistics may show that there have been habitat changes in Area 5 not seen in other parts of the state, although all management areas have shared in the overall drop in harvest numbers. Area 1 has consistently had a small snowshoe hare harvest.

Table 1. Snowshoe hare harvests within individual management areas in 2019.

Management Area	Harvest	Percent of Total
1	69	15.4
2	45	10.0
3	93	20.7
4	74	16.5
5	133	29.6
6	35	7.8

Harvest rate (hares per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is downward, similar to other small game (Fig. 4).

At the statewide level, harvest rates fluctuated between 0.1 and 1.0 hares per hunter-day (avg. = 0.4) throughout the period of record (Table 4). There is a declining trend in harvest rates since 1982, but there are also years with increased harvest rates that correspond to years with higher populations, as indicated by total harvest. Hunting pressure does not appear to affect harvest rates.

Throughout the period of record, numbers of snowshoe hare hunters has decreased (Fig and Table 2) until the last decade, and combined with a decreasing trend in harvest rate (Fig and Table 4) there is a large decrease in total harvest since 1989 (Fig and Table 3). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of snowshoe hare hunters and total harvest. The 2023 harvest survey had the following results: total hunter numbers (775) were above the long-term average (489) and higher than the most recent 10-year average (514), total harvest (449) was well below the long-term average (968) and also below the 10-year average (459), and harvest rate (0.1) was below the long-term average (0.4) and the 10-year average (0.2). A look at each management area shows downward trends in all areas for hunter numbers, harvest, and harvest rates, except area 1 which has stable trends overall. Area 1 statistics may be misleading because of the low numbers usually associated with snowshoe hare hunting there.

Table 2. Snowshoe hare hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	27	118	337	325	138	86	1,031
1983	70	117	299	211	222	94	1,013
1984	31	78	142	165	197	39	652
1985	38	47	95	168	200	74	622
1986	14	50	117	188	113	27	509
1987	16	61	65	133	71	39	385
1988	30	70	102	233	114	22	571
1989	34	69	115	219	160	96	693
1990	62	78	93	236	83	86	638
1991	53	65	99	357	172	30	776
1992	35	41	78	167	104	43	468
1993	31	43	89	164	96	63	486
1994	27	32	49	106	79	47	340
1995	31	37	45	117	40	27	297
1996	No Data						
1997	98	28	113	140	42	21	442
1998	649	36	107	81	105	18	996
1999	92	87	97	136	125	21	558
2000	43	64	72	155	43	30	407
2001	106	24	101	129	61	14	435
2002	36	60	101	89	66	33	385
2003	53	32	30	100	59	17	291
2004	33	57	52	134	50	21	347
2005	13	61	23	89	34	16	236
2006	11	32	102	163	35	6	349
2007	37	15	40	99	48	18	257
2008	3	45	39	108	35	0	230
2009	12	40	56	71	57	11	247
2010	9	15	40	116	49	34	263
2011	61	96	64	83	29	28	361
2012	21	30	60	79	93	31	314
2013	7	48	56	91	72	22	296
2014	28	53	40	54	104	64	343
2015	43	30	76	149	90	19	407
2016	61	76	39	167	128	39	510
2017	31	61	78	81	56	41	348
2018	15	73	77	94	98	23	342
2019	63	68	52	152	151	70	548
2020	24	90	68	129	169	83	551
2021	56	47	78	116	131	36	463
2022	54	87	149	156	273	133	852
2023	116	62	144	130	234	88	775

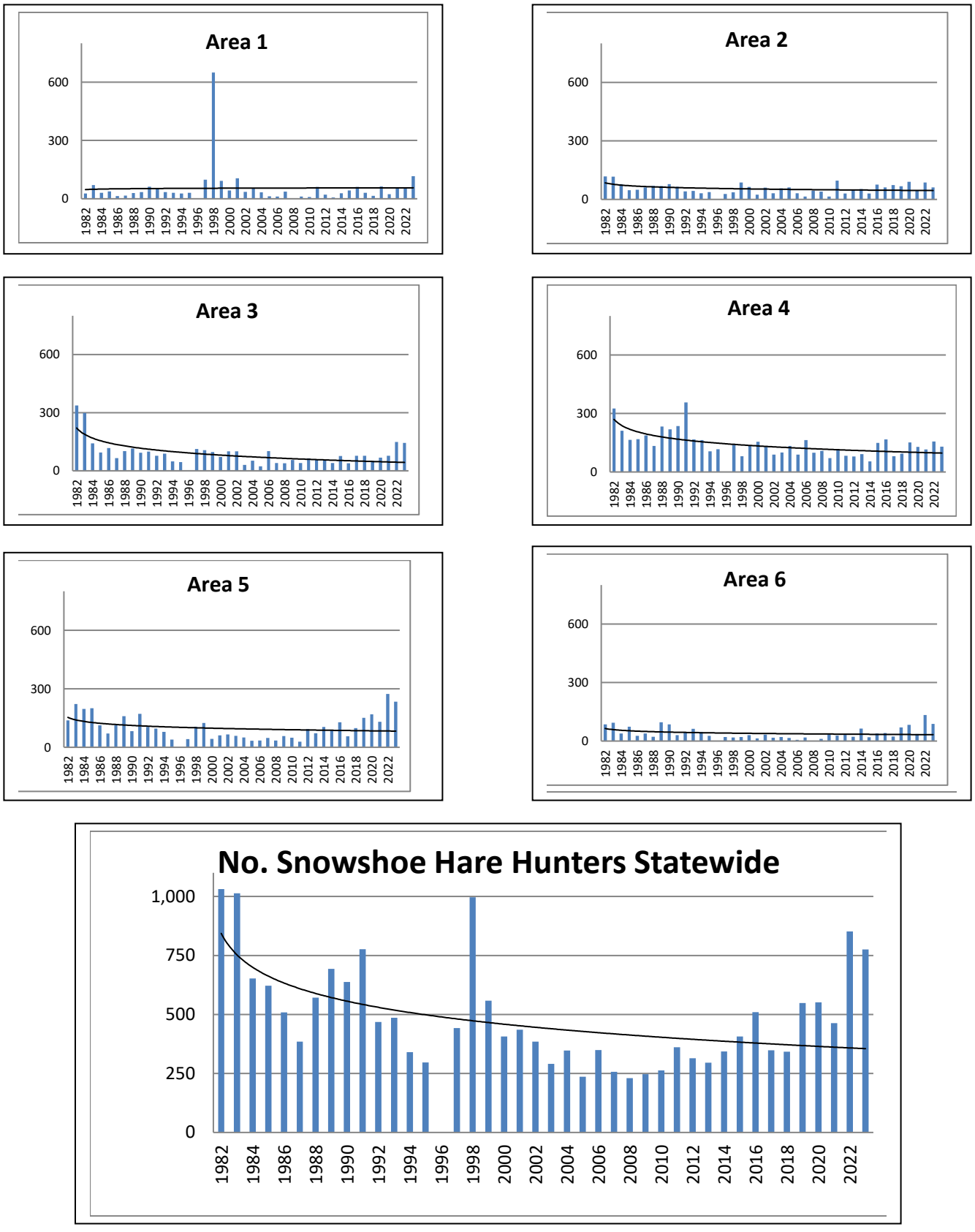


Figure 2. Snowshoe hare hunters in each management area and statewide.

Table 3. Snowshoe hare harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	9	191	1904	839	247	77	3,267
1983	5	154	1462	806	1015	121	3,563
1984	82	236	406	1160	673	19	2,576
1985	27	156	327	327	553	95	1,485
1986	11	50	441	332	300	61	1,195
1987	35	193	190	653	129	79	1,279
1988	42	153	568	774	420	73	2,030
1989	76	171	605	1291	1030	474	3,647
1990	107	100	339	1421	423	341	2,731
1991	122	35	505	1161	364	333	2,520
1992	79	176	200	482	479	260	1,676
1993	48	33	95	322	210	91	799
1994	4	56	30	197	101	76	464
1995	7	26	75	36	27	35	206
1996	No Data						
1997	445	183	162	133	63	14	1,000
1998	216	0	139	106	138	37	636
1999	92	59	166	138	97	0	552
2000	29	74	72	141	53	40	409
2001	110	23	105	221	23	50	532
2002	171	139	108	112	66	13	609
2003	34	24	39	206	73	27	403
2004	0	52	24	239	14	14	343
2005	0	153	116	361	44	27	701
2006	10	64	130	390	53	13	660
2007	76	11	120	37	44	40	328
2008	0	88	49	247	5	0	389
2009	2	25	108	102	39	11	287
2010	0	0	16	82	25	0	123
2011	26	58	98	15	0	8	205
2012	41	7	18	62	23	42	193
2013	0	60	77	105	5	35	282
2014	20	17	29	129	88	133	416
2015	484	49	138	339	224	14	1,248
2016	191	104	12	239	189	10	745
2017	18	58	58	56	28	11	229
2018	0	38	58	11	43	0	150
2019	11	107	19	98	73	39	347
2020	0	176	15	52	36	7	286
2021	8	19	19	105	40	16	207
2022	25	114	45	88	189	51	512
2023	69	45	93	74	133	35	449

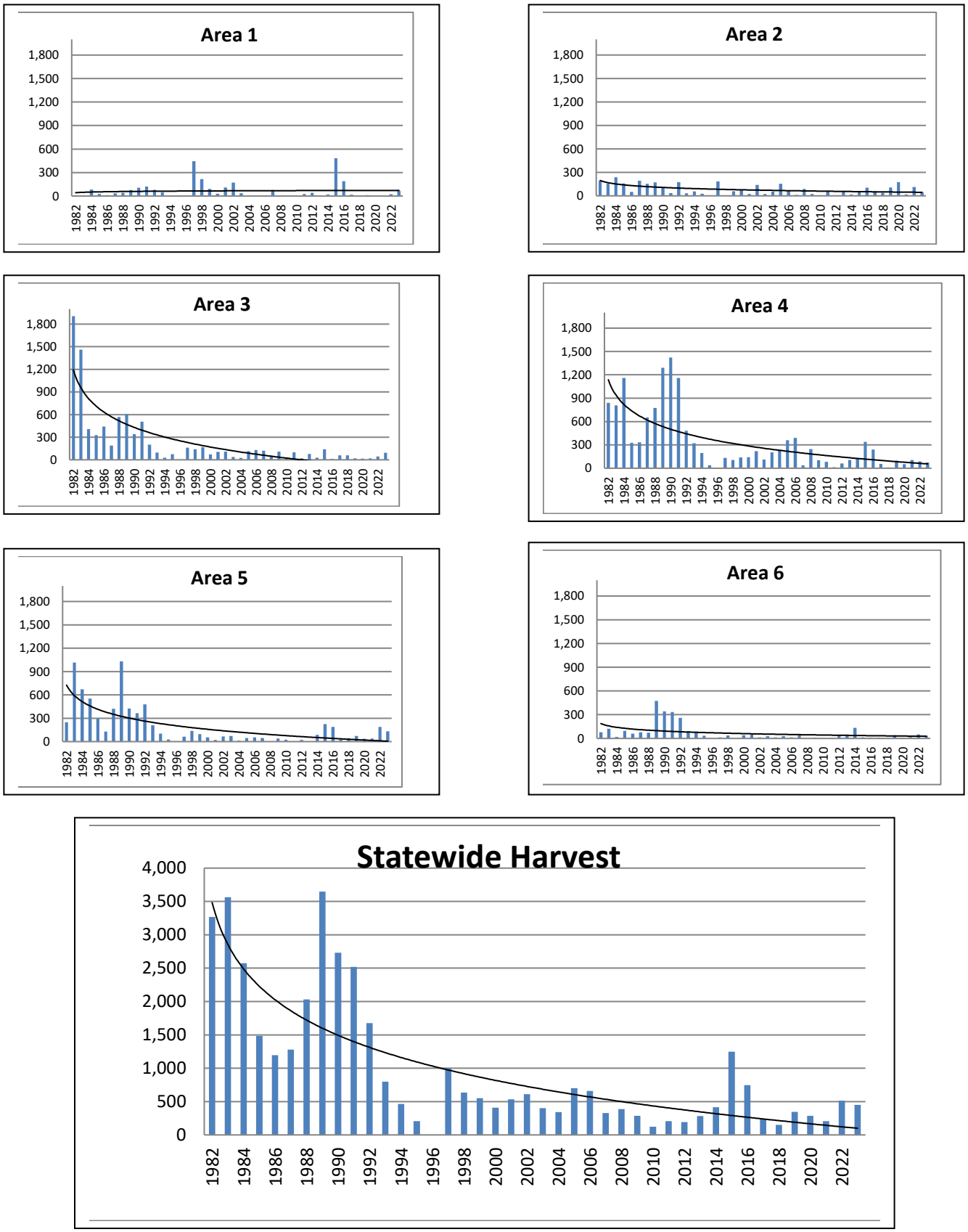


Figure 3. Snowshoe hare harvest in each management area and statewide.

Table 4. Snowshoe hare harvest rate (hares per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	0.1	0.2	0.8	0.4	0.3	0.3	0.5
1983	0.0	0.5	0.6	1.1	0.7	0.6	0.7
1984	0.9	0.8	0.5	1.0	0.7	0.1	0.7
1985	0.2	0.9	1.0	0.3	0.5	0.6	0.5
1986	0.1	0.3	1.1	0.4	0.8	1.1	0.7
1987	0.5	1.0	0.7	0.9	0.5	0.6	0.8
1988	0.6	0.6	1.1	0.8	0.7	0.7	0.8
1989	0.3	0.7	1.2	0.8	1.6	1.1	1.0
1990	0.3	0.1	1.1	1.1	0.9	1.0	0.8
1991	0.3	0.4	0.9	0.6	0.8	1.9	0.7
1992	0.4	0.4	0.6	0.6	0.8	0.6	0.6
1993	0.3	0.3	0.3	0.2	0.4	0.2	0.3
1994	0.0	0.6	0.2	0.3	0.2	0.3	0.3
1995	0.0	0.1	0.2	0.0	0.1	0.2	0.1
1996	No Data						
1997	0.4	2.9	0.5	0.3	0.5	0.4	0.5
1998	0.1	0.0	0.3	0.5	0.3	1.5	0.1
1999	0.3	0.1	0.6	0.6	0.5	0.0	0.3
2000	0.1	0.5	0.2	0.3	0.3	0.9	0.3
2001	0.3	0.4	0.4	0.5	0.1	0.2	0.3
2002	0.7	1.1	0.6	0.2	0.2	0.2	0.4
2003	0.1	0.1	1.3	0.6	0.3	0.3	0.4
2004	0.0	0.7	0.1	0.6	0.1	0.5	0.3
2005	0.0	0.9	0.7	1.4	0.4	1.7	0.9
2006	0.9	0.3	0.6	1.0	0.5	0.4	0.7
2007	0.2	0.7	0.7	0.1	0.1	0.2	0.2
2008	0.0	0.6	1.0	0.2	0.0	0	0.2
2009	0.0	0.1	0.4	0.3	0.3	1.0	0.3
2010	0.0	0.0	0.2	0.2	0.1	0.0	0.1
2011	0.1	0.1	0.3	0.1	0.0	0.1	0.1
2012	0.7	0.2	0.2	0.5	0.1	0.6	0.2
2013	0.0	0.3	0.3	0.1	0.0	0.4	0.1
2014	0.4	0.1	0.2	0.5	0.1	0.5	0.3
2015	1.6	0.5	0.6	0.4	0.4	0.4	0.6
2016	1.2	0.3	0.0	0.2	0.2	0.0	0.2
2017	0.2	0.3	0.1	0.3	0.1	0.1	0.2
2018	0.0	0.2	0.3	0.0	0.2	0.0	0.1
2019	0.1	0.2	0.1	0.1	0.1	0.1	0.1
2020	0.0	0.1	0.1	0.1	0.1	0.0	0.1
2021	0.0	0.0	0.1	0.2	0.1	0.2	0.1
2022	0.0	0.2	0.1	0.1	0.1	0.1	0.1
2023	0.3	0.2	0.1	0.2	0.1	0.2	0.1

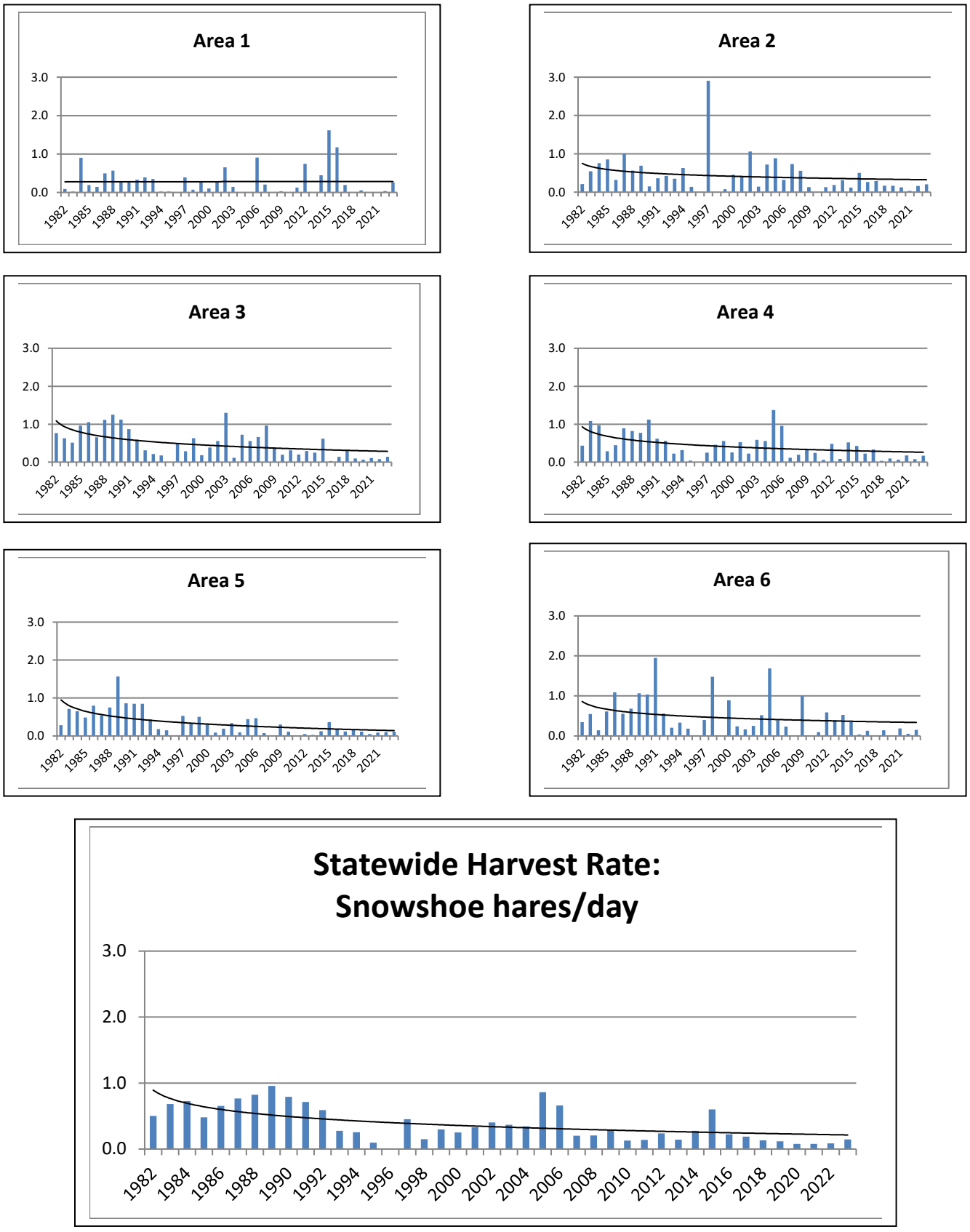


Figure 4. Snowshoe hare harvest rate (hares per hunter-day in each management area and statewide).

SQUIRRELS

There are three species of squirrel that are designated as small game in Wyoming: red, fox and gray squirrels. The most widespread and most often hunted is the red or Pine squirrel. It inhabits forested areas throughout the state. The Eastern fox squirrel has been transplanted and dispersed into most deciduous riparian, urban and agricultural habitats east of the Continental Divide, and is also present west of the Divide. They are hunted much less than they could be because of their strong association with towns and cities. Wyoming statute allows landowners to take and kill any squirrel causing property damage. Fox squirrels are the usual targets for damage control, again because of their preference for urban habitats. The Eastern gray squirrel is only known from a small area near Sheridan, although there may be other small populations in the eastern part of the state. Red squirrels are associated with coniferous forests statewide, with some use of aspens and other deciduous trees. Fox and gray squirrels prefer deciduous trees, usually in an urban or agricultural setting. There are other arboreal squirrel species in Wyoming that are not designated as small game. The Abert's Squirrel is a non-game species that inhabits one small area in southern Wyoming. The population near Herriman is the northernmost extension of a larger population in Colorado. The Northern flying squirrel is also a non-game species. It is more widely distributed in forested areas in the state, but because of its secretive, nocturnal nature few people know of this species presence.

Hunting seasons for squirrels have changed little since 1982. They begin September 1 each year, and ended on the last day of February or the first of March until 2018, when the end date was moved to the end of March. The daily and possession limits for squirrels have remained at 10 squirrels daily and 20 in possession since 1982. There is also a falconry season with lower limits.

The Department compiles squirrel harvest data from the 6 common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Squirrels occupy suitable habitat in all areas. Harvest data from 2023 shows a fairly even distribution across the state, with huntable populations in all management areas. Like the other small game species, there are more opportunities for squirrel harvest than hunters take advantage of.

Table 1. Squirrel harvests within individual management areas in 2023.

Management Area	Harvest	Percent of Total
1	271	8.1
2	431	12.9
3	859	25.6
4	364	10.9
5	1122	33.5
6	304	9.1

Harvest rate (squirrels per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is downward, similar to other small game (Fig. 4).

At the statewide level, harvest rates fluctuated between 0.5 and 2.7 squirrels per hunter-day (avg. = 1.1) throughout the period of record (Table 4). There is a declining trend in harvest rates since 1982, but there are also years with increased harvest rates that correspond to years with higher populations, as indicated by total harvest. Hunting pressure does not appear to affect harvest rates.

Throughout the period of record, the number of squirrel hunters has decreased (Fig and Table 2), and combined with a decreasing trend in harvest rate (Fig and Table 4) there is a large decrease in total harvest since 1982 (Fig and Table 3). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of squirrel hunters and total harvests. The 2023 harvest survey had the following results: total hunter numbers (905) were above the long-term average (539) and above the most recent 10-year average (659), total harvest (3,351) was higher than the long-term average (2,621) and also higher the 10-year average (1,993), and the harvest rate (0.9) was below the long-term average (1.1) but higher than the 10-year average (0.7). A look at each management area shows downward trends in all areas for hunter numbers, harvest, and harvest rates, although the rate of decline varies between management areas.

Table 2. Squirrel hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	37	124	216	49	330	122	878
1983	91	78	307	147	685	31	1,339
1984	13	81	51	144	269	26	584
1985	25	66	154	70	318	30	663
1986	35	65	117	115	318	31	681
1987	39	20	87	82	229	24	481
1988	29	20	86	101	221	40	497
1989	50	22	104	92	192	58	518
1990	19	40	62	75	198	38	432
1991	13	38	71	75	262	36	495
1992	28	25	78	100	178	44	453
1993	9	72	56	105	170	61	473
1994	24	42	64	80	175	38	423
1995	25	50	72	77	182	24	430
1996	No Data						
1997	113	42	133	112	245	49	694
1998	375	63	107	113	214	24	896
1999	182	75	72	74	293	34	730
2000	30	29	111	76	92	40	378
2001	23	10	60	61	69	33	256
2002	26	78	64	80	160	47	455
2003	30	30	58	42	73	8	241
2004	15	21	72	34	127	38	307
2005	0	69	46	4	188	0	307
2006	14	30	70	86	143	24	367
2007	19	20	25	88	87	0	239
2008	24	35	49	83	148	14	353
2009	23	8	72	80	131	20	334
2010	33	14	63	34	156	52	352
2011	12	57	71	48	160	20	368
2012	20	99	61	52	132	73	437
2013	32	72	80	39	168	60	451
2014	33	49	122	76	146	19	445
2015	43	51	87	83	154	41	459
2016	39	38	56	91	190	61	475
2017	31	110	95	55	103	36	430
2018	44	93	129	92	222	86	643
2019	122	132	128	66	240	112	761
2020	60	139	135	83	155	47	618
2021	107	80	133	99	223	119	732
2022	166	127	228	180	300	155	1,123
2023	138	101	199	102	273	115	905

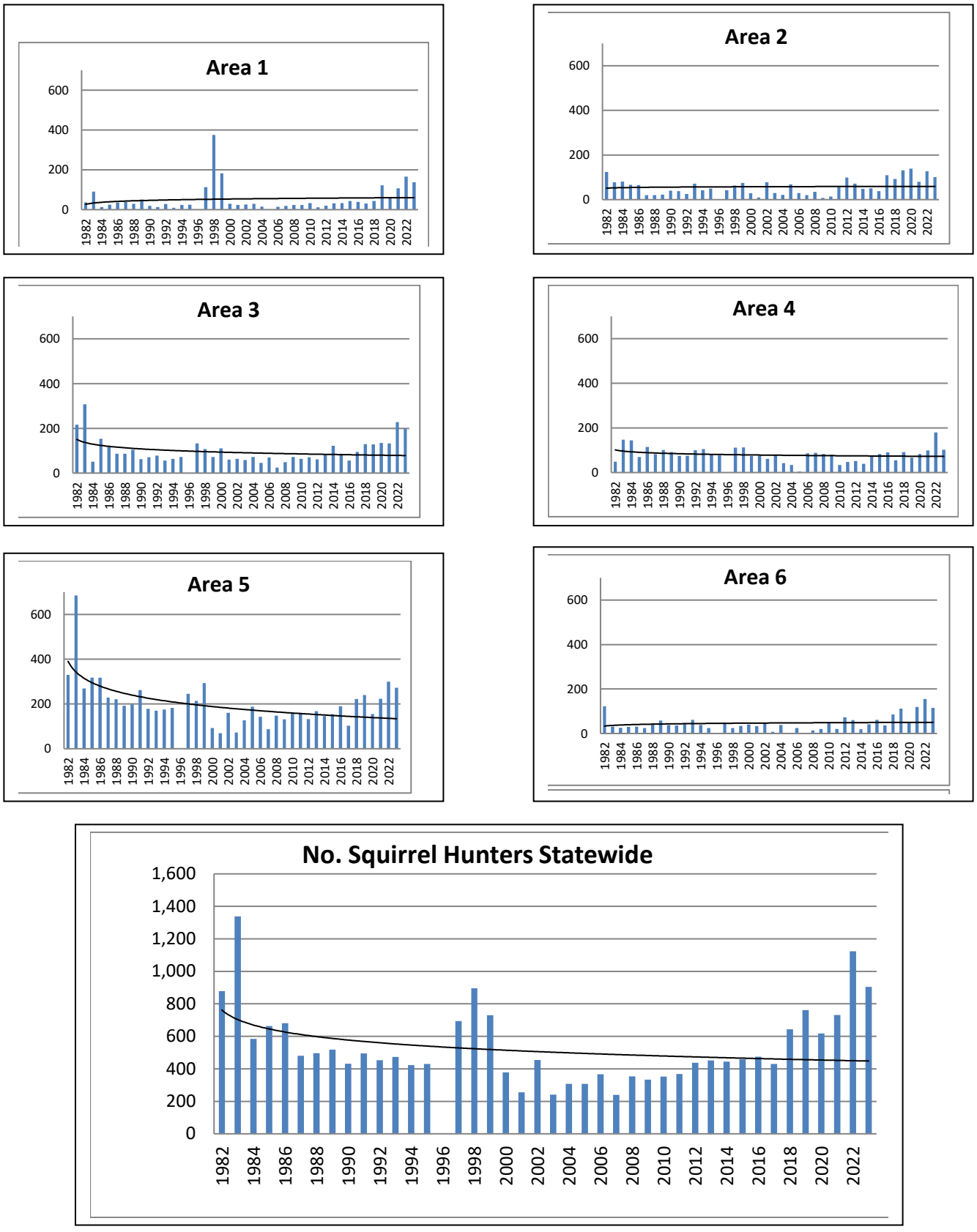


Figure 2. Squirrel hunters in each management area and statewide.

Table 3. Squirrel harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	202	708	3008	597	4553	461	9,529
1983	555	829	1954	958	2852	134	7,282
1984	78	91	1717	1081	2594	153	5,714
1985	126	409	2757	1384	2096	157	6,929
1986	287	358	1913	747	2238	100	5,643
1987	332	215	608	860	1600	223	3,838
1988	220	165	795	1089	1201	290	3,760
1989	113	13	749	521	1491	387	3,274
1990	48	49	393	990	949	162	2,591
1991	16	77	412	632	1086	260	2,483
1992	293	111	308	1128	1134	237	3,211
1993	90	56	82	1061	871	290	2,450
1994	72	173	198	558	1342	168	2,511
1995	69	271	534	474	531	146	2,025
1996	No Data						
1997	218	77	416	436	874	218	2,239
1998	158	227	781	456	1124	69	2,815
1999	287	358	336	553	1118	82	2,734
2000	114	67	444	372	352	39	1,388
2001	14	19	142	335	246	92	848
2002	35	247	205	601	457	92	1,637
2003	26	97	179	212	477	8	999
2004	96	41	476	187	746	61	1,607
2005	0	393	148	71	822	0	1,434
2006	68	89	154	377	451	73	1,212
2007	302	118	39	429	178	0	1,066
2008	267	321	121	328	527	21	1,585
2009	46	26	369	239	665	75	1,420
2010	150	66	250	134	787	208	1,595
2011	27	180	397	41	518	23	1,186
2012	70	594	152	117	262	337	1,532
2013	109	107	235	148	289	123	1,011
2014	98	69	270	154	417	61	1,069
2015	38	265	343	183	396	237	1,462
2016	100	107	112	374	864	107	1,664
2017	149	294	306	219	314	79	1,361
2018	52	259	261	601	504	177	1,854
2019	468	298	672	236	1019	266	2,959
2020	168	496	181	116	245	142	1,348
2021	196	149	248	302	217	200	1,312
2022	484	299	797	647	1030	294	3,551
2023	271	431	859	364	1122	304	3,351

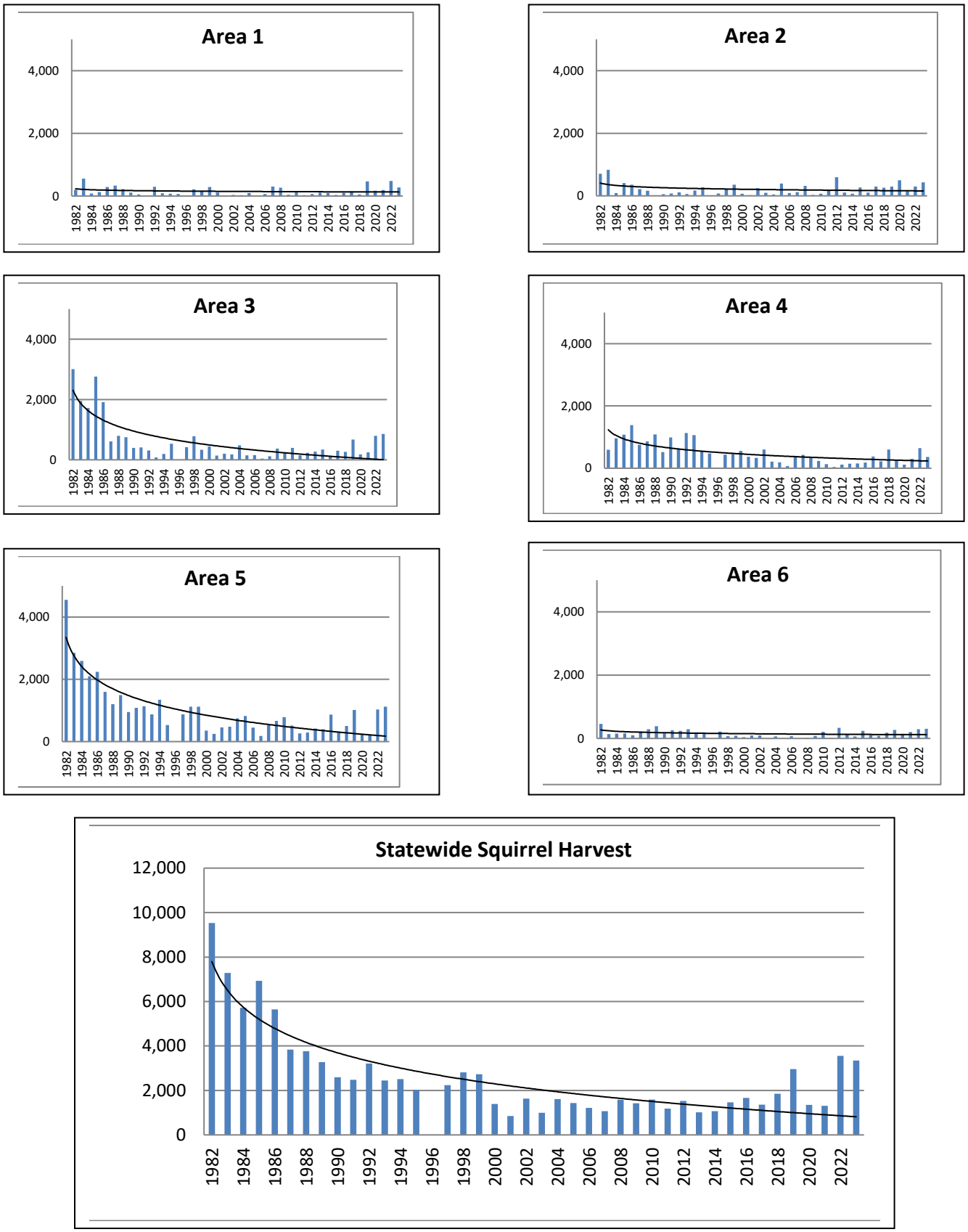


Figure 3. Squirrel harvest in each management area and statewide.

Table 4. Squirrel harvest rate (squirrels per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	0.6	2.9	2.3	2.3	1.8	2.1	1.9
1983	1.8	1.7	2.5	2.8	1.2	2.0	1.7
1984	3.7	1.0	4.4	2.0	2.6	3.8	2.7
1985	0.3	2.4	2.3	4.4	1.5	2.0	1.9
1986	1.1	1.1	2.4	1.5	1.9	1.3	1.8
1987	2.7	3.9	1.2	2.6	1.9	3.6	2.0
1988	2.9	2.8	2.4	2.6	1.4	1.0	1.9
1989	0.4	0.3	2.1	0.9	2.0	1.5	1.4
1990	0.3	0.1	1.4	3.8	1.7	3.1	1.5
1991	0.2	0.9	1.2	2.3	0.9	3.2	1.2
1992	2.0	1.2	0.7	1.9	1.6	2.5	1.6
1993	2.0	0.2	0.3	1.1	1.1	2.0	0.9
1994	0.8	0.9	0.8	2.7	1.2	0.7	1.2
1995	0.2	1.1	1.4	1.3	0.6	1.2	0.9
1996	No Data						
1997	0.3	1.4	1.4	1.2	0.6	1.3	0.7
1998	0.1	1.3	1.9	1.8	0.9	1.8	0.8
1999	0.3	0.7	0.9	2.2	0.8	0.7	0.8
2000	0.7	0.4	1.2	1.5	1.5	0.3	1.1
2001	0.2	0.8	1.0	2.4	1.0	1.1	1.2
2002	0.4	1.5	1.1	2.3	0.9	1.0	1.2
2003	0.4	1.1	0.7	1.9	1.1	0.4	1.0
2004	0.4	1.5	1.9	1.2	1.5	0.4	1.2
2005	0	2.8	0.9	3.9	0.9	0	1.2
2006	1.6	1.2	1.0	0.7	0.8	0.8	0.8
2007	3.8	1.1	0.9	1.2	0.4	0	1.0
2008	2.9	1.7	0.4	0.3	0.9	1.2	0.7
2009	0.5	3.3	1.5	0.5	0.6	3.8	0.7
2010	0.6	0.5	0.3	0.7	1.1	0.9	0.7
2011	1.0	0.9	2.3	0.1	0.7	0.2	0.7
2012	0.7	2.4	1.0	0.4	0.4	1.5	0.9
2013	2.4	0.4	0.6	1.1	0.6	0.5	0.6
2014	1.8	0.7	0.9	0.4	0.5	1.1	0.7
2015	0.5	0.7	1.0	0.8	0.3	1.2	0.6
2016	1.4	1.3	0.6	0.7	0.8	0.9	0.8
2017	0.8	1.5	0.6	1.8	0.7	1.3	0.9
2018	0.4	1.0	0.8	1.0	0.8	0.6	0.8
2019	1.0	0.9	0.7	1.0	0.9	0.7	0.8
2020	0.7	1.6	0.6	0.5	0.4	0.4	0.7
2021	0.6	0.7	0.9	0.7	0.2	0.8	0.5
2022	0.8	0.5	0.6	0.8	0.3	0.3	0.5
2023	0.5	1.2	1.1	0.9	0.9	1.0	0.9

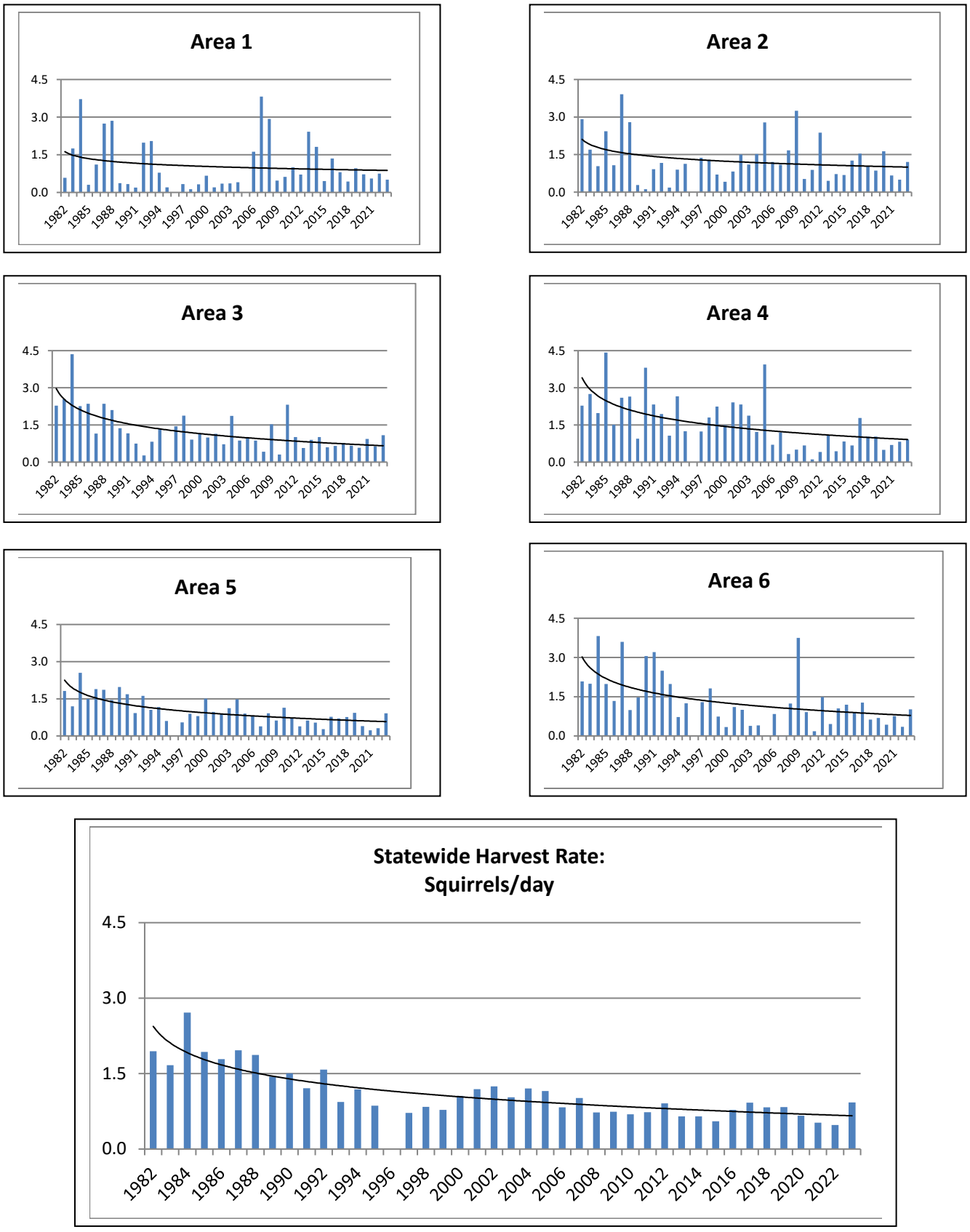


Figure 4. Squirrel harvest rate (squirrels per hunter-day in each management area and statewide).

APPENDIX 1: Upland Game Bird and Small Game Hunting Seasons.

CHAPTER 11

UPLAND GAME BIRD AND SMALL GAME HUNTING SEASONS

Section 1. **Authority.** This regulation is promulgated by authority of Wyoming Statutes § 23-1-302 and § 23-2-105.

Section 2. **Hunting Regulations.**

(a) Bag and Possession Limit. Only one (1) daily bag limit of each species of upland game birds and small game may be taken per day regardless of the number of hunt areas hunted in a single day. When hunting more than one (1) hunt area, a person's daily and possession limits shall be equal to, but shall not exceed, the largest daily and possession limit prescribed for any one (1) of the specified hunt areas in which the hunting and possession occurs.

(b) Evidence of sex and species shall remain naturally attached to the carcass of any upland game bird in the field and during transportation. For pheasant, this shall include the feathered head, feathered wing or foot. For all other upland game bird species, this shall include one fully feathered wing.

(c) No person shall possess or use shot other than nontoxic shot for hunting game birds and small game with a shotgun on the Commission's Table Mountain and Springer Wildlife Habitat Management Areas and on all national wildlife refuges open for hunting.

(d) Required Clothing. Any person hunting pheasants within the boundaries of any Wyoming Game and Fish Commission Wildlife Habitat Management Area, or on Bureau of Reclamation Withdrawal lands bordering and including Glendo State Park, shall wear in a visible manner at least one (1) outer garment of fluorescent orange or fluorescent pink color which shall include a hat, shirt, jacket, coat, vest or sweater.

Section 3. **Upland Game Bird Hunting Seasons.**

(a) Sage Grouse Hunt Areas, Season Dates, Bag Limits and Limitations.

SAGE GROUSE					
Hunt Area	Season Dates		Bag Limit		Limitations
	Opens	Closes	Daily	Possession	
1	Sep. 21	Sep. 30	2	4	Any sage grouse
2, 3, 4					CLOSED

(i) Sage Grouse Hunt Area Descriptions.

Area 1. Includes all of Big Horn, Fremont, Hot Springs, Park, Sweetwater, Uinta and Washakie counties, as well as that portion of Albany County north of U.S. Highway 30-287 and west of the Fetterman Road (Albany County Road 61), that portion of Converse County south and west of the Balsh Road (U.S.F.S. Road 660), all of Carbon County except that portion east of the Medicine Bow River and South of U.S. Highway 30-287, all of Lincoln and Sublette counties except those portions within the Snake River drainage, and all of Natrona County except that portion east of Interstate Highway 25. Area 1 also excludes that portion of Natrona County south of Interstate Highway 25 in the Muddy Creek drainage.

Area 2. The entire state of Wyoming excluding the lands described in Areas 1, 3 and 4.

Area 3. All lands in the Snake River drainage within Lincoln, Sublette and Teton counties.

Area 4. Beginning at the intersection of the Sheridan-Big Horn county line with the Wyoming-Montana state line; easterly along said state line to the Rocky Point Road in Crook County; southerly along said road to the "D" Road; southerly along said road to Interstate Highway 90; easterly along said highway to U.S. Highway 16 at Moorcroft; southeasterly along said highway to U.S. Highway 85 at Newcastle; southerly along said highway to the Weston- Niobrara-Campbell-Converse-Natrona-Johnson county lines; westerly along said county lines to the Washakie-Johnson-Big Horn-Sheridan county lines; northerly then northwesterly along said county lines to the Wyoming-Montana state line.

(b) A sage grouse hunting permit shall be required of any licensed hunter who participates in hunting sage grouse. The sage grouse hunting permit shall be in possession of any person while hunting sage grouse, and shall be immediately produced for inspection upon request from any authorized Department representative. The permit shall be available at headquarters, regional offices and the department website.

(c) Blue (Dusky) Grouse Hunt Areas, Season Dates, Bag Limit and Limitations.

BLUE (DUSKY) GROUSE					
Hunt Area	**Season Dates**		**Bag Limit**		
	Opens	**Closes**	**Daily**	**Possession**	**Limitations**
1	Sep. 1	Dec. 31	3	9	Any blue (dusky) grouse

(i) Blue (Dusky) Grouse Hunt Area Description.

Area 1. The entire state of Wyoming.

(d) Ruffed Grouse Hunt Areas, Season Dates, Bag Limits and Limitations.

RUFFED GROUSE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 1	Dec. 31	3	9	Any ruffed grouse

Ruffed Grouse Hunt Area Description.

Area 1. The entire state of Wyoming.

(e) Partridge Hunt Areas, Season Dates, Bag Limit and Limitations.

CHUKAR PARTRIDGE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 15	Jan. 31	5	15	Any chukar partridge

GRAY PARTRIDGE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 15	Jan. 31	5	15	Any gray partridge

(i) Partridge Hunt Area Description.

Area 1. The entire state of Wyoming.

(f) Sharp-Tailed Grouse Hunt Areas, Season Dates, Bag Limit and Limitations.

SHARP-TAILED GROUSE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 1	Dec. 31	3	9	Any sharp-tailed grouse

(i) Sharp-Tailed Grouse Hunt Area Description.

Area 1. That portion of Wyoming east of the Continental Divide.

(g) Pheasant Hunt Areas, Season Dates, Bag Limit, Limitations and Shooting Hours.

PHEASANT							
Hunt Area	Season Dates		Bag Limit		Limitations	Shooting Hours	
	Opens	Closes	Daily	Possession		Start	End
1	Nov. 1	Dec. 31	3	9	Male pheasant only except those areas in Sheridan and Johnson counties that require a Pheasant Special Management Permit in Section 4 shall be open for any pheasant. (Youth Hunt-Refer to Section 7)	½ hour before Sunrise	Sunset
2	Nov. 1	Dec. 1	2	6	Any pheasant (Youth Hunt-Refer to Section 7)	Week Days 8:00 a.m.	2:00 p.m.
						Weekend Days 8:00 a.m.	Sunset
2	Dec. 2	Dec. 31	2	6	Male pheasant only	½ hour before Sunrise	Sunset
5	Nov. 1	Dec. 31	3	9	Male pheasant only except that portion of Area 5 north of the Shoshone River and west of the Yellowtail Reservoir shall be open for any pheasant (Youth Hunt-Refer to Section 7)	Veterans Day (State Observed Holiday), Thanksgiving Day, Christmas Day, and Weekend Days ½ hour before Sunrise	Sunset
						Week Days 11:00 a.m.	Sunset
7	Nov. 1	Dec. 31	3	9	Male pheasant only except that portion of Area 7 on the Table Mountain WHMA shall be open for any pheasant	½ hour before Sunrise	Sunset
						Table Mountain WHMA	
						8:00 a.m.	4:00 p.m.
8	Oct. 11	Oct. 31	3	Season Limit 9	Any pheasant (Springer permits) Refer to Section 5	8:00 a.m.	4:00 p.m.

PHEASANT							
Hunt Area	Season Dates		Bag Limit		Limitations	Shooting Hours	
	Opens	Closes	Daily	Possession		Start	End
8	Nov. 1	Nov. 15	3	9	Any pheasant	8:00 a.m.	4:00 p.m.
9	Nov. 1	Dec. 31	3	9	Any pheasant (Youth Hunt - Refer to Section 6)	8:00 a.m.	3:00 p.m.
11	Nov. 1	Dec. 31	3	9	Any pheasant	½ hour before Sunrise	Sunset

(i) Pheasant Hunt Area Descriptions.

Area 1. All of Fremont County, excluding those lands described in pheasant hunt area 2. All of Sheridan, Johnson, Park, Washakie and Hot Springs counties, and all of Big Horn County excluding those lands described in pheasant hunt area 5.

Area 2. All lands in the Ocean Lake Wildlife Habitat Management Area, the Mile High Ranch Access Area, the Killebrew Ranches Access Area and all lands in the Sand Mesa Wildlife Habitat Management Area east of the Bass Lake Road.

Area 5. All of the lands included in the Yellowtail Wildlife Habitat Management Area north of U.S. Highway 14A.

Area 7. All of Goshen County excluding Hunt Area 8.

Area 8. All of the lands included in the Springer/Bump-Sullivan Wildlife Habitat Management Area.

Area 9. All Bureau of Reclamation Withdrawal lands bordering and including Glendo State Park and the adjoining Department's Access Yes Walk-in Area.

Area 11. The entire State of Wyoming excluding the lands described in Areas 1, 2, 5, 7, 8 and 9.

(ii) Closed Areas.

(A) The waters and lands within one-half (1/2) mile of the aeration system on the north side of Ocean Lake shall be closed to pheasant hunting beginning December 15 through December 31 of each year.

(B) The Downar Bird Farm and Springer Headquarters in Goshen County shall be closed to pheasant hunting as marked by signs.

(C) Pond Number 1 and adjacent lands on the Table Mountain Wildlife Habitat Management Area in Goshen County, as marked by colored

signs and posts, shall be closed to pheasant hunting after November 15.

(D) The Sheridan Bird Farm in Sheridan County shall be closed to pheasant hunting, except during hunts sponsored and supervised by the Wyoming Game and Fish Department.

Section 4. Pheasant Special Management Permit. A Pheasant Special Management Permit shall be required of any person, except those exempted in this section, who participates in the hunting of pheasants in those areas listed in subsection (a) of this section.
Owners of lands enrolled in the Department's Access Yes Walk-In Areas, and members of their immediate families (landowner's spouse, parents, grandparents, lineal descendants and their spouses or siblings) are exempt from the requirement to obtain a Pheasant Special Management Permit when they are hunting pheasants on the deeded land of the landowner. The Pheasant Special Management Permit shall be in possession of any person while hunting pheasants, and shall be immediately produced for inspection upon request from any authorized Department representative. The permit shall be available at Headquarters, Department Regional Offices and designated license selling agents.

(a) Pheasant Special Management Permit Areas. A Pheasant Special Management Permit shall be required to hunt pheasants in the areas listed in this subsection:

(i) Bud Love Wildlife Habitat Management Area in Johnson County.

(ii) Glendo State Park; including all Bureau of Reclamation Withdrawal lands bordering the Park and the adjoining Department's Access Yes Walk-In Area in Platte County.

(iii) Ocean Lake Wildlife Habitat Management Area, the Mile High Ranch Access Area and the Killebrew Ranches Access Area in Fremont County.

(iv) Springer Wildlife Habitat Management Area in Goshen County.

(v) Table Mountain Wildlife Habitat Management Area in Goshen County.

(vi) Yellowtail Wildlife Habitat Management Area, excluding any private lands included within the Yellowtail Wildlife Habitat Management Area, in Big Horn County.

(vii) All lands in the Sand Mesa Wildlife Habitat Management Area east of the Bass Lake Road in Fremont County.

(viii) All lands open to the hunting of pheasants that are enrolled in the Department's Access Yes Program, excluding Walk-In Access Areas in Big Horn, Fremont, Hot Springs, Park and Washakie counties on which pheasants are not released by the Department.

(ix) All State Trust land in Sheridan County.

(x) Welch Ranch Management Area in Sheridan County.

Section 5. Springer Permit Pheasant Season. There shall be a Springer permit pheasant season in Hunt Area 8 beginning October 11 through October 31. In order to participate in this season, a person shall possess and present upon request a valid Springer permit, a valid bird license and conservation stamp (unless otherwise exempted by state statute) and a Pheasant Special Management Permit. The Springer permit shall only be valid for the day printed on the permit by the Department.

(a) Application for Springer Permits. Applications shall be submitted through the Electronic Licensing Service (ELS). Only youths may apply for Springer permits for youth only hunt days as set forth in Section 5 (c) of this Chapter. A drawing shall be utilized to determine successful applicants. A person shall only submit a single application. Successful applicants shall be notified by mail of their hunting date and furnished a set of special instructions.

(b) Issuance of Springer Permits. A maximum of one hundred twenty (120) permits shall be issued to successful applicants in the drawing for each day of the Springer permit pheasant season. A maximum of one hundred twenty (120) hunters shall be allowed to hunt at any one time during the Springer permit pheasant season. When a hunter checks out of the Springer Check Station, the Department may issue a permit to another person at the check station. If all one hundred twenty (120) permits for a single day have not been issued by the Department, or if the check station attendants are advised that a permitted hunter will not participate, the Department may issue a permit to another person at the check station on a first- come, first-served basis, not to exceed a maximum of one hundred twenty (120) permitted hunters. Permitted hunters may begin hunting at 8:00 a.m. Hunters who are issued permits through the drawing must check in at the check station by 8:00 a.m. on the date their permit is valid. Permits that are unclaimed after 8:00 a.m. may be issued to other hunters on a first-come, first-served basis.

(c) Youth Only Hunt Days. Only youths shall be allowed to take pheasants on the youth hunt days. Youths under the age of fourteen (14) shall be accompanied by an adult. No adult shall take any pheasant during the youth only hunt days. The youth only hunt days are October 12, 20 and 26.

(d) Springer Check Station. The Springer Check Station is located one and one- quarter (1-1/4) miles west of U.S. Highway 85 on the south boundary of the Springer Wildlife Habitat Management Area. The hours of operation of the check station shall be from 7:00 a.m. to 4:30 p.m. daily during the Springer permit pheasant season. Persons participating in the Springer permit pheasant season shall check in at the check station prior to hunting. Prior to leaving the Springer permit pheasant area, each hunter shall check out at the check station by 4:30 p.m. on the same day that the hunter registered and shall accurately report all harvested pheasants and return all special hunt materials to the check station.

(e) Parking Assignment. Parking lot assignments and tags shall be issued

by the Department for each vehicle utilized by hunters. Parking lot tags shall be displayed in a visible manner in each vehicle. All vehicles shall be parked in assigned parking lots.

Section 6. Glendo Pheasant Hunt Area 9 Youth Pheasant Hunt. Only youths shall be allowed to take pheasants on the dates listed in this section. Youths under the age of fourteen (14) shall be accompanied by an adult. No adults shall take any pheasant during the youth only hunt days. Youth only hunt days shall be the following Sundays; November 3, 10, 17 and 24.

Section 7. Bud Love Wildlife Habitat Management Area, Yellowtail Wildlife Habitat Management Area and Pheasant Hunt Area 2 Youth Pheasant Hunt. Only youths shall be allowed to take pheasants on the dates listed in this section. Youths under the age of fourteen (14) shall be accompanied by an adult. No adults shall take any pheasant during the youth only hunt days.

(a) The Bud Love Wildlife Habitat Management Area and pheasant Hunt Area 2 youth only hunt day is Saturday, November 16.

(b) The Yellowtail Wildlife Habitat Management Area youth only hunt days are November 15-17 and shall take place on all lands included in the Yellowtail Wildlife Habitat Management Area north of the Shoshone River.

Section 8. Small Game Hunting Seasons.

(a) Small Game Species, Seasons Dates, Bag Limits and Limitations.

	Season Dates		Bag Limit		
Species	**Opens**	**Closes**	**Daily**	**Possession**	**Limitations**
Cottontail Rabbit	Sep. 1	Mar. 31	10	20	Any cottontail rabbit
Snowshoe Hare	Sep. 1	Mar. 31	4	8	Any snowshoe hare
Red, Grey and Fox Squirrel	Sep. 1	Mar. 31	10	20	Any red, grey or fox squirrel

(i) Small Game Hunt Area Description.

Area 1. The entire state of Wyoming.

Section 9. Archery Regulations. Upland game birds and small game may be taken with archery equipment in accordance with limitations set forth in this Chapter.

Section 10. Upland Game Bird and Small Game Falconry Seasons.

(a) Upland game birds may be taken with falcons in accordance with Section 3 of this Chapter. Persons hunting with falcons may take any pheasant.

(b) The falconry season shall open September 1 and close March 1 in those open hunt areas listed in Section 3 of this Chapter and subject to the closures listed in Subsection 10(c) of this Chapter.

(c) Closed Areas.

Pheasant Hunt Area	Limitations
8, 9	Closed to falconry hunting

Also refer to closed areas in Section 3.

(d) The daily bag and possession limits for upland game birds other than sage grouse, shall be as set forth in Section 3 of this Chapter. The daily bag limit shall be one (1) sage grouse and the possession limit shall be two (2) sage grouse.

(e) Persons taking sage grouse with falcons shall respond to Department surveys not later than May 1, 2025 requesting harvest information for the period September 1, 2024 through March 1, 2025.

(f) Small game animals may be taken with falcons in accordance with the open seasons in the table below.

Species	Falconry Season Dates		Bag Limit		Limitations
	Opens	Closes	Daily	Possession	
Cottontail Rabbit	Sep. 1	Mar. 1	10	20	Any cottontail rabbit
	Mar. 2	Aug. 31	1	2	Any cottontail rabbit
Snowshoe Hare	Sep. 1	Mar. 1	10	20	Any snowshoe hare
	Mar. 2	Aug. 31	1	2	Any snowshoe hare
Red, Grey and Fox Squirrel	Sep. 1	Mar. 1	10	20	Any red, grey or fox squirrel
	Mar. 2	Aug. 31	1	2	Any red, grey or fox squirrel

WYOMING GAME AND FISH COMMISSION

By: Richard A. Ladwig

Richard Ladwig, President

Dated: April 16, 2024

APPENDIX 2: References.

Berg, N. D., E. M. Gese, J. R. Squires, and L. M. Aubry. 2012. Influence of forest structure on the abundance of snowshoe hares in western Wyoming. Journal of Wildlife Management 76:1480-1488.

Berg, N. D., and E. M. Gese. 2010. Relationship between fecal pellet counts and snowshoe hare density in western Wyoming. Journal of Wildlife Management 74:1745-1751.

Genetic structure of the arboreal squirrels (Glaucomys sabrinus and Tamiasciurus hudsonicus) in the North American Black Hills. 2012. Canadian Journal of Zoology. 90:1191-1201.

Edelaar, P., and C. W. Benkman. 2006. Replicated population divergence caused by localized coevolution: A test of three hypothesis in the Red Crossbill-lodgepole pine system. *Journal of Evolutionary Biology* 19:1651-1659.

Fedy, B. C., and K. E. Doherty. 2011. Population cycles are highly correlated over long time series and large spatial scales in two unrelated species: Greater Sage Grouse and cottontail rabbits. Oecologia 165:915-924.

Feldhamer, G. A., B. C. Thompson, and J. A. Chapman., editors. 2003. Wild mammals of North America: biology, management and conservation: second edition. John Hopkins University Press, Baltimore, USA.

Gutzwiller, K. J., and S. K. Riffell. 2008. Does repeated human intrusion alter use of wildland sites by red squirrels. Multiyear experimental evidence. Journal of Mammalogy 89:374-380.

Hodges, K. E., M. L. Scott, and K. M. Murphy. 2009. Distribution and abundance of snowshoe hares in Yellowstone National Park. Journal of Mammalogy 90:870-878.

Lawrence, I.E. 1955. An Ecological Study of the Snowshoe hare, Lepus americanus in the Medicine Bow National Forest of Wyoming. Unpublished M.S. Thesis, University of Wyoming.

Mattson, D. J., and D. Reinhart. 1996. Indicators of red squirrel (Tamiasciurus hudsonicus) abundance in the whitebark pine zone. Great Basin Naturalist; 56:272-275

Mattson, D. J., and D. P. Reinhart. 1997. Excavation of red squirrel middens by grizzly bears in the whitebark pine zone. *Journal of Applied Ecology* 34:926-940.

Oedekoven, O., and M. Zornes. 2007. Chapter 11: Small Game Mammals. Pages 11-1 to 11-14 in S. A. Tessman and J. R. Bohne (eds). Handbook of Biological Techniques: third edition. Wyoming Game and Fish Department. Cheyenne, WY.

Orabona, A., C. Rudd, N. Bjornlie, Z. Walker, S. Patla, and B. Oakleaf. . 2021. Atlas of Birds, Mammals, Amphibians, and Reptiles in Wyoming. Wyoming Game and Fish Department Nongame Program, Lander. 241pp.

Pearson, D. E., L. Ruggiero. 2001. Test of the prey-base hypothesis to explain use of Red squirrel midden sites by American martens. Canadian Journal of Zoology 79:1372-80.

Podruzny, S. R., D. Reinhart, and D. Mattson. 1999. Fire, red squirrels, whitebark pine, and Yellowstone grizzly bears. Ursus 11:131-138.Reinhart, D. P., and D. Mattson. 1990. Red squirrels in the whitebark zone. U.S. For. Serv. Gen. Tech. Rep. INT 270:256-263

Reinhart, D.P. and Mattson, D.J. 1990. Red squirrels in the Whitebark Zone. U.S. For. Serv. Gen. Tech. Rep. INT 270: 256-263. 1990. WR 233-263. 8p.

Ripe, D. 1998. White bark. Wyoming Wildlife 62:18-26.

Rothwell, R. 1977. The effects of forest type and mast crop on winter territories and populations of red squirrels in the Laramie Range of Southeastern Wyoming. Thesis, University of Wyoming, Laramie, USA.

Rothwell, R. 1979. Nest sites of red squirrels in the Laramie Range of Southeastern Wyoming. Journal of Mammology 60:404-405.

Saab, V. A., Q. S. Latif, M. M. Rowland, T. N. Johnson, A. D. Chalfoun, S. W. Buskirk, J. E. Heyward, and M. A. Dresser. 2014. Ecological consequences of mountain pine beetle outbreaks for wildlife in western North American forests. Forest Science 60:539-559.

Schuman, G. E., R. A. Olson, K. A. Partlow, and S. E. Belden. 2010. Wildlife impacts to big sagebrush on reclaimed mined lands. Arid Land Research & Management 24:117-132.

Siepielski, A. M. 2006. A possible role for red squirrels in structuring breeding bird communities in lodgepole pine forests. Condor 108:232-238.

Siepielski, A. M., and C. W. Benkman. 2008. Seed predation and selection exerted by a seed predator influence subalpine tree densities. *Ecology* 89:2960-2966.

Siepielski, A. M. and C. W. Benkman. 2010. Conflicting selection from an antagonist and a mutualist enhances phenotypic variation in a plant. *Evolution* 64:1120-1128.

Squires, J. R. 2000. Food habits of northern goshawks nesting in south central Wyoming. Wilson Bulletin 112:536-539.

Talluto, M. V., and C. W. Benkman. *2013. Landscape-scale eco-evolutionary dynamics: Selection by seed predators and fire determine a major reproductive strategy. Ecology* 94:1307-1316.

Yamamoto, O., B. Moore, and L. Brand. 2001. Variation in the bark call of the red squirrel (Tamiasciurus hudsonicus). Western North American Naturalist; 61:395-402.

Zahratka, J. L. 2004. The population and habitat ecology of snowshoe hares in the southern Rocky Mountains.

UPLAND GAME BIRD JCR 1982-2023

INTRODUCTION

Several native and introduced species of game birds inhabit Wyoming. Native species include: Greater Sage Grouse, Dusky (Blue) Grouse, Ruffed Grouse, Sharp-tailed Grouse, and Mourning Dove. Introduced species include: Chukar Partridge, Gray Partridge, and Ring-necked Pheasant. The wild turkey is native to other parts of the United States, but is an introduced species here. Most habitat types in the state are occupied by at least one species of upland game during some portion of the year.

There are several other gallinaceous bird species that have, at least in the past, inhabited small parts of Wyoming. The native species include the Greater Prairie-Chicken, White-tailed Ptarmigan, and Northern Bobwhite. The Greater Prairie-Chicken was only documented five times since 1900 in Goshen and Laramie Counties, and any individuals seen are considered vagrants from farther east. The White-tailed Ptarmigan has only been reliably documented in the Snowy Range west of Laramie, but sightings are few. The department species atlas also shows that they have been observed a few times in or near Yellowstone National Park. It is classified as a game bird, but there is no hunting season for it. The Northern Bobwhite was naturally found in the North Platte drainage from the Nebraska border almost to the town of Douglas, and there were efforts to introduce them to other parts of the state such as along the Bighorn River. It is still classified as a game bird, but there is no established hunting season. One species that appears to have established a viable reproducing population near Lovell is California Quail. These probably are descendants of birds that escaped from a nearby bird farm. It is not, at this time, recognized as a game bird here, so there is no established hunting season. An invasive species, Eurasian collared-dove, has established itself in most towns and other human-altered areas. As an invasive like European starling or House sparrow, it can be killed at any time of year and without limit, but upland hunters can and do shoot them without impacting their dove hunting limits. Other introduced species included several different pheasant varieties planted by both private individuals or organizations and the department, but these have not been successful introductions. Misidentification of upland birds has resulted in extant birds being reported in incorrect places, or incorrect species being reported in the state.

For data gathering and analysis purposes, the state has been divided into 6 management areas for game birds (excepting Sage Grouse) and small game (Figure 1) since 2010.

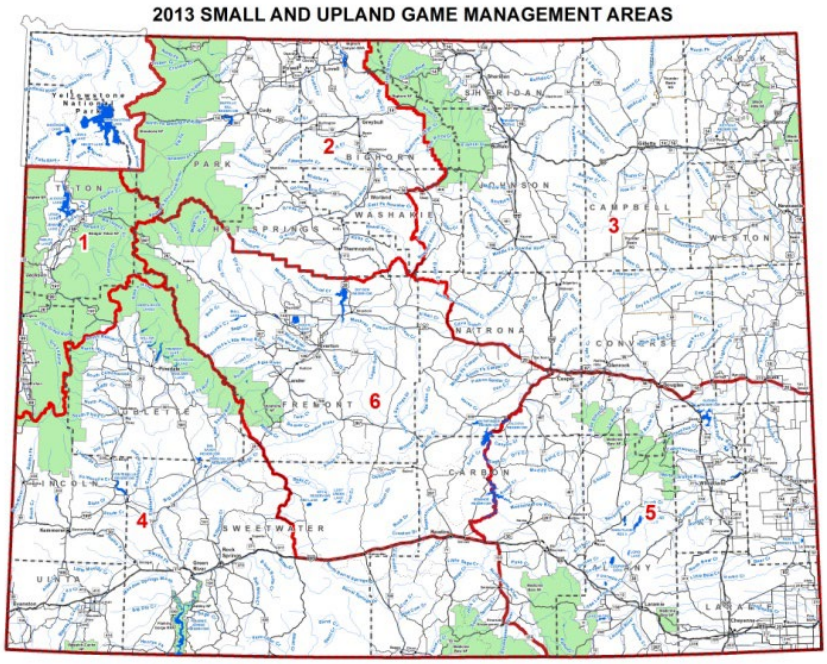


Figure 1. Wyoming Game Bird and Small Game Management Areas

Sales of game bird/small game licenses peaked in 2006, and have varied between that high and about 25,000 licenses since then (Figure 2), although trends in these license sales are complicated by the variety of licenses that can be purchased. There are daily, annual, and lifetime licenses. The annual license can be just for game birds, just for small game, or combined. The lifetime game bird/small game license can also be combined with a fishing license.

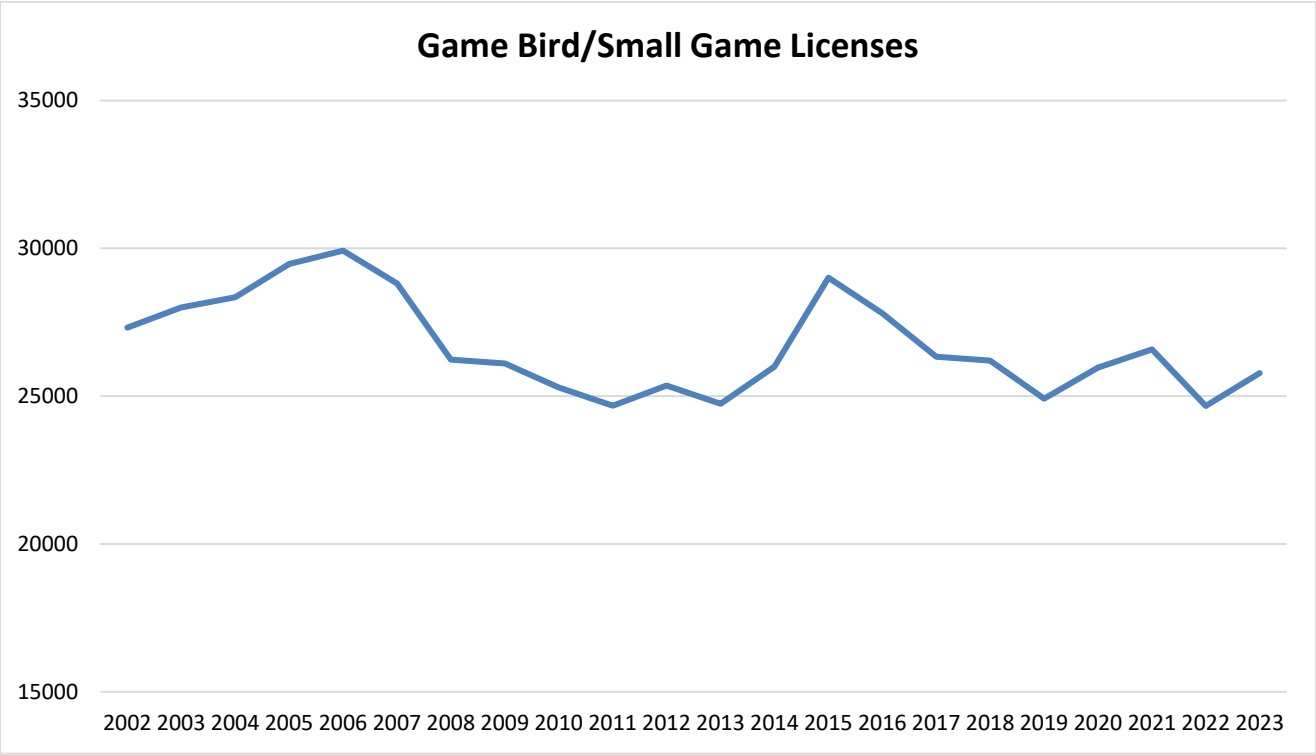


Figure 2. Wyoming game bird/small game licenses sold, 2002-2023.

Populations of upland game birds respond quickly when conditions are favorable and are mostly influenced by weather and precipitation. However, various natural and anthropogenic factors have affected populations of these species through the reporting period on local and statewide scales.

Interest in hunting for game birds is greatly influenced by the annual population levels. When populations are high, interest increases as hunting is successful, while the opposite is true when populations are low. In either case, the harvest is not detrimental to the overall populations or their continued presence in the state. Two exceptions to this generality are pheasant and sage grouse. The release of pen-raised pheasants through the department bird farms located at Sheridan and Yoder keeps the level of interest and hunting more stable than for other species. Sage grouse, as explained in further detail in the individual species accounts, is a species of concern to the department and the general public because of population declines, and there has been a reduced, but fairly stable, interest in hunting them over the last decade.

The upland game, wild turkey, and early migratory game bird hunting regulations are attached as Appendices 1, 2 and 3.

A number of studies have been conducted on Wyoming's game bird and turkey species and several publications and books provide detailed accounts of their biology, habitat, distribution, abundance, economic value, and other information. A partial list of game bird and turkey references with Wyoming-specific information are listed in Appendix 4.

GREATER SAGE-GROUSE

Sage-grouse are widely distributed across Wyoming in sagebrush steppe habitat. Some populations also use agricultural areas, but sagebrush, especially in the winter, is essential. The largest population of sage-grouse in North America inhabits Wyoming, but various factors have combined to reduce their populations everywhere. Because of the decrease in population throughout its range, and reduced occupied range compared to the historically inhabited range, sage-grouse have been previously petitioned for listing as a threatened species under the federal Endangered Species Act (ESA). A decision on an ESA listing was released in 2015 removing sage-grouse from the list of candidate species.

Sage-grouse management and data collection have been the most intense of any of the small or upland game species, and there has been a separate Job Completion Report written for sage-grouse for over a decade. These reports can be found on the Wyoming Game and Fish Department website at https://wgfd.wyo.gov/hunting-trapping/Job-Completion-Reports. These reports contain the details of the data collected, analysis, local working group activities, and the Governor's Core Area Policy. There is also more information on sagebrush and general sage-grouse management and issues at https:// https://wgfd.wyo.gov/media/293/download?inline. The eight local working groups (Figure 1) have developed separate plans for Sage-grouse conservation within their respective areas. The management areas (MA) for reporting data (lek counts, hunting and harvest) correspond to the local working group boundaries, and have been in place since 2010.

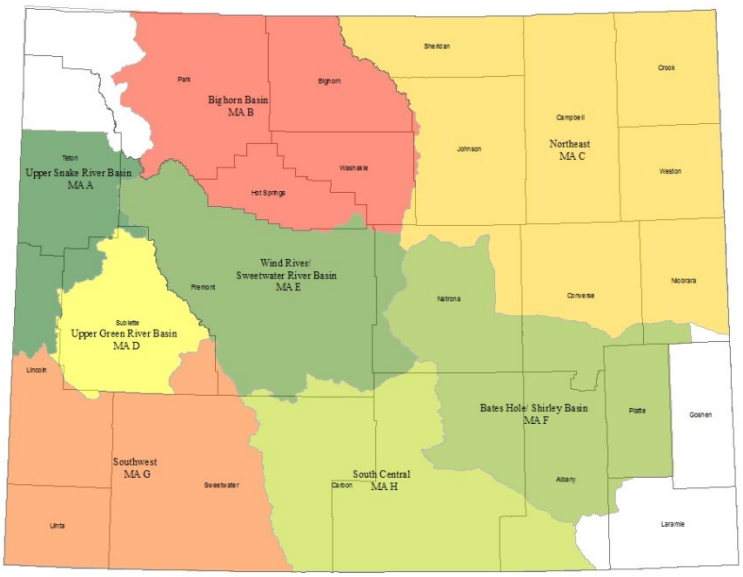


Figure 1. Wyoming sage-grouse Local Working Group and Management Area boundaries.

Sage-grouse hunt areas are designed to control hunting based on local conditions, and do not correspond to the management area boundaries (Figure 2). In 2019, for example, hunt area 1 had a twelve day season, hunt areas 2 and 3 were closed, and hunt area 4 had a three day season. In 2023, area 4 was closed.

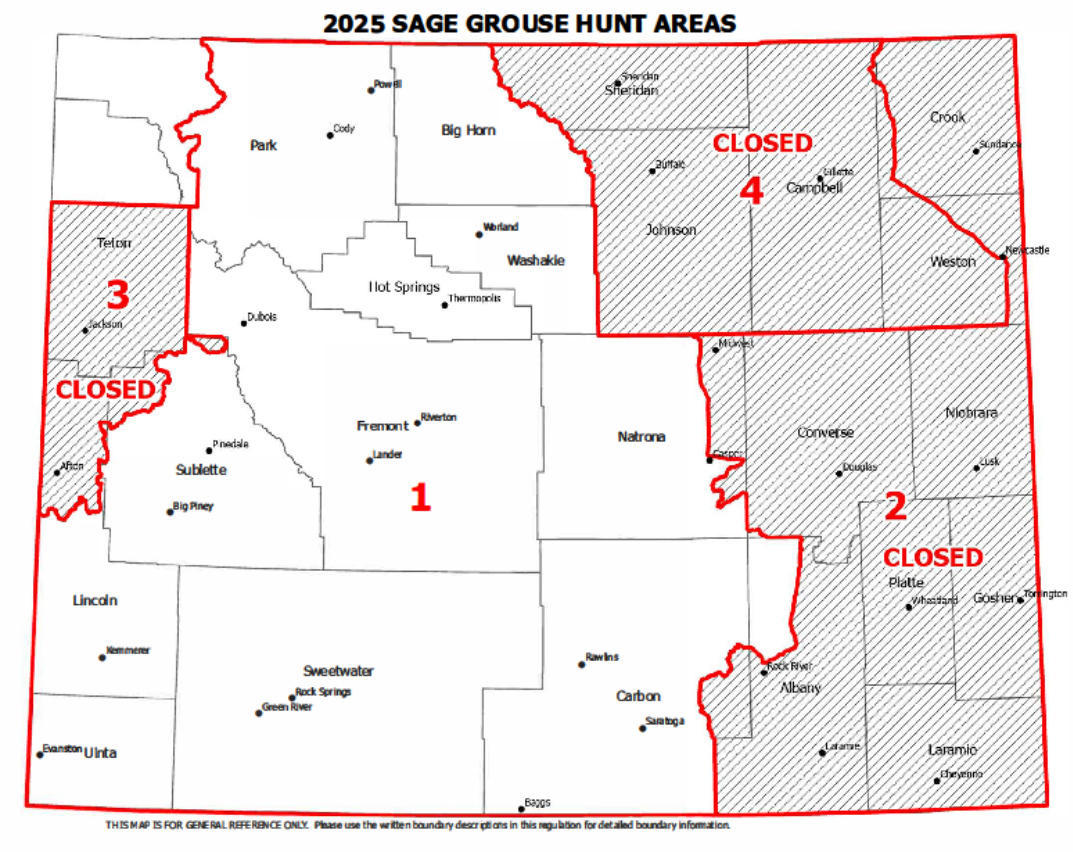


Figure 2. Sage-grouse hunt areas in 2012-25.

Since 1982, there have been as many as 5 hunt areas and as few as one. Where hunting has been allowed, the daily limit has varied from 2 to 3, and the possession limit has varied from 4 to 9. The season has consistently been in September, but in 1995 was changed to start in the second half of the month and was reduced in length. As with most gallinaceous birds, there is no evidence regulated hunting has any impact on grouse populations. Grouse populations fluctuate predominantly in response to changing weather and habitat conditions. Cold, wet springs and late snowfalls during nesting and early brood-rearing can be detrimental to the affected year's recruitment.

Harvest rate (grouse per hunter-day) is our most reliable indicator of population trends. There are indication of cyclical populations in each of the management areas, evidenced by higher harvest rates at various times. However this is less evident in the statewide data, possibly due to regional cycles being enough out of synch to cancel when the data are combined (Figure 3).

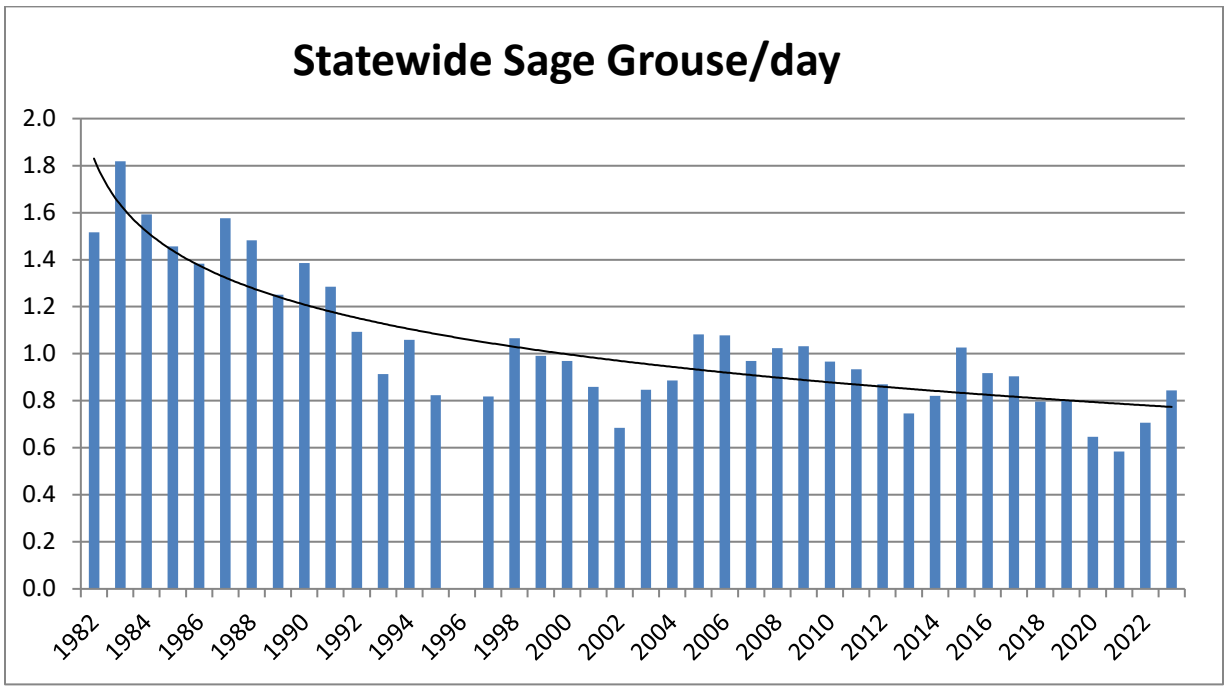


Figure 3. Statewide Wyoming Sage-grouse per hunter day, 1982-present.

At the statewide level, harvest rates fluctuated between 0.6 and 1.8 birds per hunter-day (avg. = 1.0) throughout the period of record (Table 1). The highest harvest rates were seen in the early to mid-1980's, suggesting the grouse population was likewise higher then. We do not believe hunting pressure on this species has ever been intensive enough to affect harvest rates.

Table 1. Sage-grouse harvest rate (grouse per hunter-day) in each management area and statewide.

Year	Area A	Area B	Area C	Area D	Area E	Area F	Area G	Area H	Statewide
1982	1.8	1.2	1.2	1.5	1.8	1.6	1.3	1.8	1.5
1983	0.0	1.4	2.0	1.4	2.1	2.1	1.6	2.2	1.8
1984	0.0	1.4	1.1	1.5	1.9	1.8	1.5	1.7	1.6
1985	0.0	1.3	0.9	1.6	1.6	1.7	1.4	1.6	1.5
1986	0.0	1.1	0.9	1.6	1.6	1.4	1.3	1.5	1.4
1987	1.1	1.2	1.3	1.8	1.7	1.6	1.5	1.7	1.6
1988	1.4	1.5	1.1	1.5	1.7	1.6	1.4	1.5	1.5
1989	1.3	1.2	1.0	1.5	1.2	1.4	1.2	1.2	1.3
1990	0.9	1.3	1.2	1.6	1.4	1.4	1.4	1.3	1.4
1991	1.0	1.1	1.4	1.5	1.5	1.3	1.2	1.3	1.3
1992	0.8	1.0	0.8	1.4	1.2	1.1	1.1	1.1	1.1
1993	0.8	0.6	0.5	1.0	1.2	0.8	0.9	1.0	0.9
1994	0.7	0.9	0.7	1.3	1.1	0.9	1.1	1.1	1.1
1995	0.4	0.5	0.9	1.0	0.7	0.8	0.9	0.9	0.8
1996					no data				
1997	0.5	0.7	0.7	1.0	0.8	0.9	0.8	0.8	0.8
1998	1.1	0.7	0.9	1.3	0.9	1.2	1.2	1.1	1.1
1999	0.6	0.9	0.6	1.2	1.1	1.4	1.1	1.0	1.0
2000	0.5	0.6	0.7	1.4	1.1	1.2	1.0	1.3	1.0
2001	0.3	0.5	0.7	0.7	0.9	1.0	1.0	0.9	0.9
2002	1.0	0.6	0.2	0.4	1.1	1.0	0.6	0.8	0.7
2003	0.0	0.5	0.6	1.1	1.1	1.0	0.8	1.0	0.8
2004	0.0	0.5	0.7	1.0	0.9	1.2	0.9	0.8	0.9
2005	0.0	1.0	0.3	1.2	1.4	1.3	1.1	1.2	1.1
2006	0.0	0.6	0.9	1.1	1.4	1.4	1.0	0.9	1.1
2007	0.0	0.8	0.8	1.0	1.0	1.2	0.9	0.9	1.0
2008	0.0	0.4	0.3	1.0	1.0	1.1	1.1	1.2	1.0
2009	0.0	0.9	0.6	1.0	1.1	1.1	1.1	1.1	1.0
2010	NA	0.8	0.6	1.0	0.9	1.0	1.0	1.0	1.0
2011	NA	0.4	0.9	1.1	1.0	1.1	0.9	0.9	0.9
2012	NA	0.8	1.0	1.0	0.9	0.8	0.8	0.9	0.9
2013	NA	0.4	0.1	0.7	0.9	0.7	0.8	0.7	0.7
2014	NA	0.7	0.5	0.8	0.8	0.7	0.9	0.7	0.8
2015	NA	0.8	0.8	1.1	1.2	0.9	1.1	0.8	1.0
2016	NA	0.7	0.3	1.0	0.8	1.0	1.0	0.8	0.9
2017	NA	0.9	0.3	1.1	1.0	0.9	1.0	0.6	0.9
2018	NA	0.5	0.5	0.8	0.9	0.8	0.9	0.7	0.8
2019	NA	0.7	0.6	0.8	0.8	1.0	0.8	0.9	0.8
2020	NA	0.7	0.2	0.9	0.6	0.4	0.6	0.8	0.6
2021	NA	0.5	0.5	0.6	0.6	0.9	0.6	0.5	0.6
2022	NA	0.3	0.6	1.0	0.8	0.9	0.7	0.6	0.7
2023	NA	0.5	0.6	1.0	0.9	0.8	0.9	0.8	0.8

Throughout the period of record, the number of sage-grouse hunters (Table 2, Figure 4), harvest (Table 3, Figure 5), and harvest rate have all declined at a steep rate statewide, broken occasionally by a slightly more favorable year. This decline is also consistent for all management areas. A weak cyclical pattern, similar to that described above, is also noted in annual numbers of grouse hunters and total harvests. The 2023 harvest survey had the following results: total hunter numbers (5,366) were below the long-term average (8,415) but was higher than the most recent 10-year average (4,397). Total

harvest (12,323) was below the long-term average (23,858) but above the most recent 10-year average (9,205). The harvest rate (0.8) was below the long-term average (1.0) and equaled the most recent 10-year average (0.8).

Table 2. Sage-grouse hunters in each management area and statewide.

Year	Area A	Area B	Area C	Area D	Area E	Area F	Area G	Area H	Statewide
1982	57	1492	1010	895	2650	3407	5393	3167	18,071
1983	0	1709	1490	1344	2770	3912	5933	3364	20,522
1984	0	1725	1320	1587	2865	3407	5722	3257	19,883
1985	0	1451	870	1453	2201	2659	6206	2565	17,405
1986	0	1017	961	1418	2017	2342	6021	3092	16,868
1987	167	1303	945	1476	1921	2342	5895	2922	16,971
1988	260	1576	1323	1271	2585	2463	6769	3477	19,724
1989	292	1289	1051	1415	1664	1969	6038	2973	16,691
1990	311	957	1079	1064	1428	1499	4652	1991	12,981
1991	307	1302	1287	1202	1911	1892	4982	2204	15,087
1992	327	958	943	1238	1455	1544	3564	1947	11,976
1993	250	1346	817	1312	1580	1865	3741	1889	12,800
1994	226	762	685	1045	1260	1216	3075	1659	9,928
1995	176	531	400	764	665	862	2027	834	6,259
1996					no data				
1997	183	442	556	735	664	414	1476	499	4,969
1998	119	639	399	878	616	765	1812	671	5,899
1999	266	688	981	710	785	656	2756	783	7,625
2000	130	619	1170	731	1086	774	3061	1096	8,667
2001	122	357	518	324	694	725	2092	761	5,593
2002	40	310	210	231	377	383	694	491	2,736
2003	0	213	80	178	307	318	965	294	2,355
2004	0	265	271	398	572	583	2400	947	5,436
2005	0	540	342	233	930	925	1148	1112	5,230
2006	0	269	283	781	558	717	1968	836	5,412
2007	0	349	297	564	788	655	1788	739	5,180
2008	0	193	186	453	863	654	1653	743	4,745
2009	0	264	230	460	875	532	1645	726	4,732
2010	0	278	117	526	1056	480	1788	487	4,732
2011	0	294	124	565	771	514	1709	591	4,474
2012	0	290	218	476	890	415	1775	636	4,700
2013	0	206	82	387	565	399	1307	437	3,383
2014	0	303	137	406	772	352	1165	391	3,526
2015	0	411	228	500	737	380	1586	457	4,299
2016	0	302	129	706	922	466	1672	477	4,674
2017	0	300	145	402	630	315	1421	363	3,576
2018	0	418	200	853	970	464	1630	500	4,740
2019	0	244	122	548	814	403	1514	584	4,049
2020	0	331	168	352	610	212	737	465	2,673
2021	0	493	205	772	783	513	1650	691	4,991
2022	0	674	217	673	1209	631	1974	983	6,079
2023	0	611	95	818	749	825	1680	820	5,366

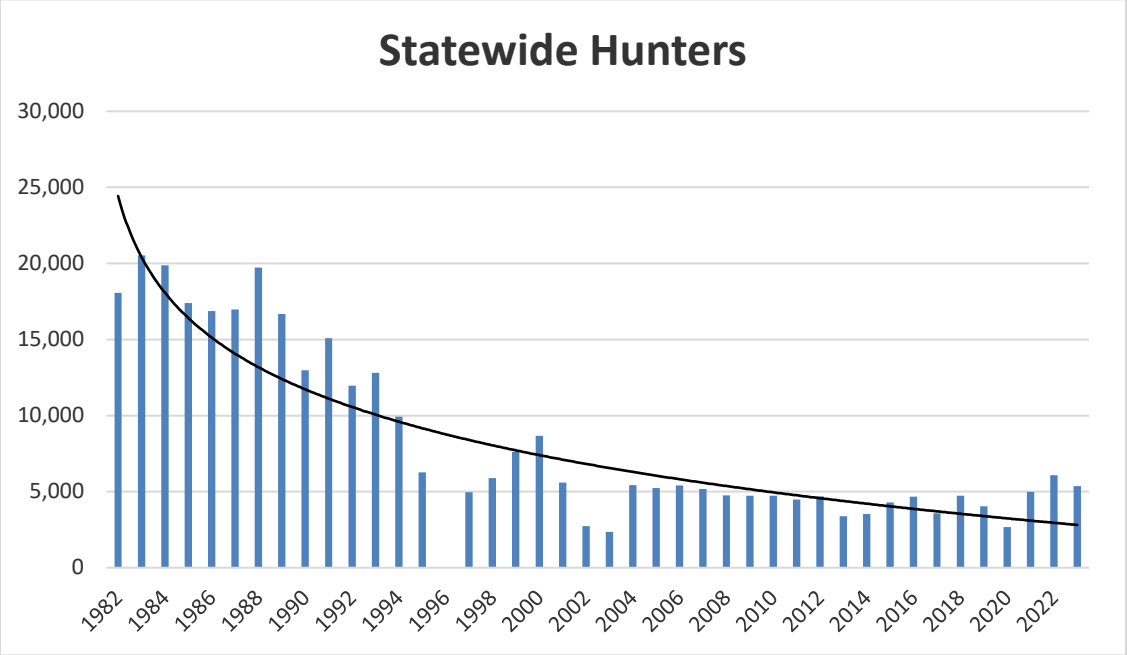


Figure 4. Statewide Wyoming Sage-grouse hunters, 1982-present.

Table 3. Sage-grouse harvest in each management area and statewide.

Year	Area A	Area B	Area C	Area D	Area E	Area F	Area G	Area H	Statewide
1982	137	4477	2522	2669	9256	9879	14688	13000	56,628
1983	0	6927	6920	4597	12014	14180	23006	16503	84,147
1984	0	6359	2964	5058	12568	10994	19423	11670	69,036
1985	0	4138	1960	5358	7223	7748	19357	8953	54,737
1986	0	2133	2107	5804	6485	5228	19034	10832	51,623
1987	421	3182	2344	6800	7460	7194	21973	12102	61,476
1988	969	5425	3364	4463	8963	7172	24173	11580	66,109
1989	832	3815	2210	4757	4619	4928	18629	8390	48,180
1990	861	2963	3044	3996	4830	3981	16684	5427	41,786
1991	749	3393	3900	4725	6752	5615	15938	6846	47,918
1992	1265	2343	1704	5188	4039	3573	10807	5469	34,388
1993	608	2090	1017	3541	4568	3720	9925	5000	30,469
1994	384	1577	1087	3617	3466	2408	9901	4018	26,458
1995	256	728	952	2191	1227	1554	5040	2027	13,975
1996					no data				
1997	275	951	1021	2269	1201	867	3753	1214	11,551
1998	317	1473	1453	3138	1730	1829	5029	1818	16,787
1999	489	1675	2513	2330	2565	1674	8267	2043	21,556
2000	278	1100	2515	2163	2428	1710	7031	3460	20,685
2001	159	439	956	681	1774	1375	5581	1777	12,742
2002	119	430	120	271	733	588	1156	1140	4,557
2003	0	365	104	440	669	623	1906	728	4,835
2004	0	292	347	1040	1398	1237	5843	1626	11,783
2005	0	1016	422	669	2994	2304	3126	2647	13,178
2006	0	421	475	2132	1710	1672	5019	1491	12,920
2007	0	585	532	1297	1776	1365	3437	1386	10,378
2008	0	166	101	1109	2144	1295	3714	1773	10,302
2009	0	472	311	1203	2295	1026	4236	1619	11,162
2010	0	545	129	1510	2495	1027	4225	1126	11,057
2011	0	354	158	1720	1779	1117	3901	1261	10,120
2012	0	457	405	1320	2068	688	3737	1194	9,869
2013	0	206	27	628	1240	488	2513	624	5,726
2014	0	524	123	1056	1546	588	2645	612	7,094
2015	0	729	314	1205	2158	837	4479	776	10,498
2016	0	594	89	1990	1910	869	4163	911	10,526
2017	0	635	118	988	1364	621	3590	501	7,817
2018	0	648	245	2161	2250	805	3410	903	10,422
2019	0	312	129	1053	1525	723	2821	1052	7,615
2020	0	767	126	885	1115	252	1491	1023	5,659
2021	0	586	404	1238	1141	1071	2937	1080	8,457
2022	0	497	429	1502	2337	1397	3968	1510	11,640
2023	0	703	139	2161	1650	1628	4160	1882	12,323

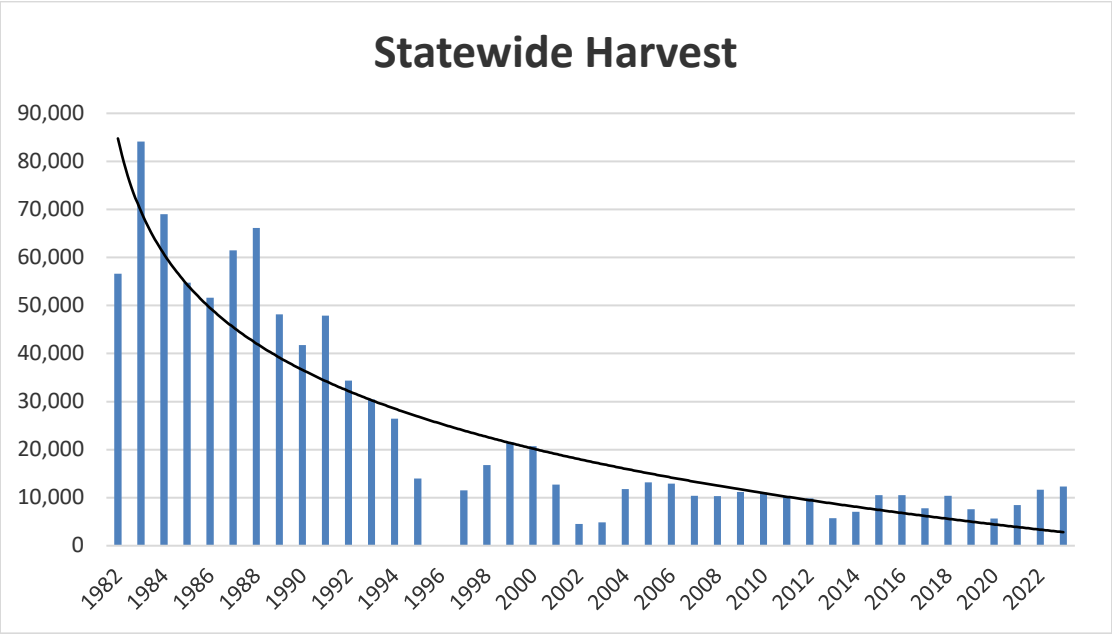


Figure 5. Statewide Wyoming Sage-grouse harvest, 1982-present.

BLUE (DUSKY) GROUSE

Blue grouse inhabit most mountain ranges of Wyoming, excluding the Black Hills. They are considered a forest species, but utilize distinctly differing habitat types at different times of year. During spring, blue grouse move down in elevation to breed in subalpine meadows, along streams, and at the sagebrush/aspen interface. After breeding, males begin moving up in elevation. Broods remain in lower elevations where they forage on insects and forbs through the summer. Broods begin migrating up in elevation during early fall. Blue grouse winter in high-elevation forest, often along ridgelines, where their diet shifts to predominantly conifer needles.

The Department sets a statewide season with a bag limit of three daily for hunting blue grouse. Prior to 2013, there was an aggregate limit for blue and ruffed grouse. The hunting season went from September 1 through November 30 since 1985. In 2018, the end date was changed to December 31. Prior to 1985, the season ended on November 15 in most of the state, although a separate hunt area in Converse and Natrona Counties (north end of the Laramie Mountain Range) had more conservative season dates. In 1991, the possession limit was increased from 6 to 9. Blue and ruffed grouse may be taken by any method not specifically prohibited by regulation. Big game hunters frequently take the species incidentally while hunting elk and deer. A substantial number of dedicated wing shooters also hunt mountain grouse, especially in September. As with most gallinaceous birds, there is no evidence regulated hunting has any impact on grouse populations. Grouse fluctuate predominantly in response to changing weather and habitat conditions. Cold, wet springs and late snowfalls during nesting and early brood-rearing can be detrimental to the current year's recruitment.

The Department compiles grouse harvest data from the 6 common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Blue grouse occupy suitable habitat in all 6 areas. The majority of blue grouse hunter activity (Fig. 2) and harvest (Fig 3) are in Area 3 (includes Bighorn Mountain Range), Area 4 (includes Wind River, Wyoming, and Sierra Madre Mountain ranges), and Area 5 (includes Snowy and Laramie Mountain ranges).

Harvest rate (grouse per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas, evidenced by higher harvest rates during the 1980s and early 2000s (Fig. 4). However this is less evident in the statewide data, possibly due to regional cycles being enough out-of-synch to cancel each other out when the data are combined.

At the statewide level, harvest rates generally fluctuated between 0.4 and 0.9 birds per hunter-day (avg. = 0.6) throughout the period of record (Table 3, Figure 4). The harvest rate was at its highest in the 1980's, and has been declining slightly since then statewide and in five of the six management areas. We do not believe hunting pressure on this species has ever been intensive enough to affect harvest rates.

Throughout the period of record, numbers of grouse hunters and harvests have declined sharply at the statewide level and in most management areas, although there has been an upward trend since 2020 (Figs 2, 3). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of grouse hunters and total harvests. The 2023 harvest survey had the following results: total hunter

numbers (6,077) were higher than the long-term average (4,943) and higher than the most recent 10-year average (4,229), total harvest (15,689) climbed above the long-term average (11,497) and was also higher than the 10-year average (10,103), and harvest rate (0.5) was lower than the long-term (0.6) and equaled the 10-year average (0.5). Management Area 2 is the only area that has any stable or increasing harvest numbers. Reasons for this are unknown.

The pine bark beetle epidemic generated a lot of concern about potential impacts to blue grouse, which depend on pine forest in winter. Although the outbreak reached its peak in the early-mid 2000s, there is no evidence of a distinct impact on blue grouse populations. Harvest numbers suggest continued natural fluctuations that follow the trend from previous years. Beetle outbreaks were especially severe in Management Area 5 (includes Snowy and Laramie Mountain ranges). However the harvest rate in 2023 (0.6 birds/hunter day) continues a stretch of years with no real trend. Older, decadent pines were most susceptible to beetle attack and younger pines are now growing through the dead forest canopy. Openings in the canopy have removed competition and increased light penetration to the forest floor, possibly enabling more forbs and shrubs to grow in the understory. Although speculative, this setback in succession could increase forage and nutritional quality available to forest grouse and other species, ultimately providing long term benefits. Ultimately, the possible impacts of the pine mortality event will be resolved through additional monitoring of harvest trends.

Table 1. Blue grouse hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	546	679	1,442	1,640	1,814	672	6,793
1983	780	798	1,625	1,683	1,937	770	7,593
1984	451	579	917	1,317	1,481	477	5,222
1985	461	354	1,388	1,237	1,664	502	5,606
1986	492	428	1,091	1,168	1,469	519	5,167
1987	758	498	1,398	1,852	2,093	589	7,188
1988	717	738	1,990	2,021	2,515	721	8,702
1989	641	489	1,466	2,072	1,579	505	6,752
1990	677	450	1,328	1,767	1,191	463	5,876
1991	766	721	1,500	1,983	1,527	495	6,992
1992	690	437	1,058	1,683	1,159	301	5,328
1993	703	584	1,120	1,567	1,240	569	5,783
1994	705	415	954	1,314	1,346	393	5,127
1995	443	431	879	1,117	667	453	3,990
1996	NO DATA						
1997	579	386	868	1,072	887	317	4,109
1998	539	567	991	1,093	740	387	4,317
1999	593	621	1,489	1,662	1,275	402	6,042
2000	537	630	969	1,644	1,042	519	5,341
2001	632	560	1,312	1,659	1,157	565	5,885
2002	720	741	332	1,421	977	390	4,581
2003	480	377	641	826	718	246	3,288
2004	680	481	876	1,873	953	427	5,290
2005	345	760	689	1,384	1,342	465	4,985
2006	386	357	794	1,468	887	159	4,051
2007	722	620	644	1,492	756	289	4,523
2008	369	402	602	999	985	223	3,580
2009	355	390	735	1,193	736	157	3,566
2010	376	498	595	1,021	997	357	3,844
2011	313	468	729	768	807	313	3,398
2012	422	501	744	791	1,231	391	4,080
2013	428	514	579	910	717	308	3,456
2014	505	452	685	738	958	356	3,694
2015	378	541	642	884	908	343	3,696
2016	522	535	545	1095	741	349	3,787
2017	348	438	358	662	615	233	2,654
2018	413	516	703	1058	952	357	3,807
2019	504	630	573	1026	875	617	3,932
2020	313	276	376	763	455	455	2,516
2021	801	651	765	1289	1131	728	5,068
2022	991	863	1038	1757	1787	966	6,974
2023	1123	526	975	1529	1756	506	6,077

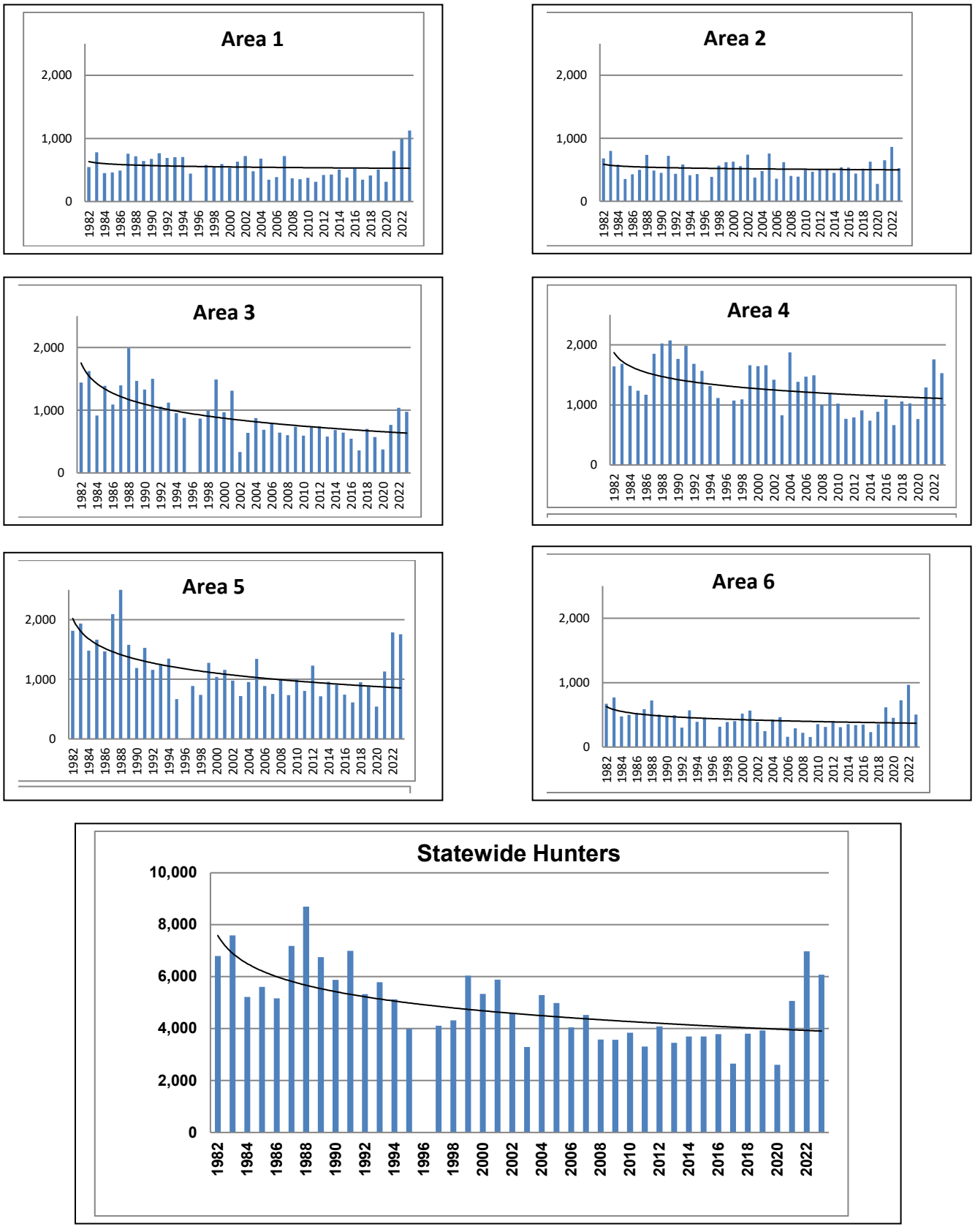


Figure 2. Blue grouse hunters in each management area and statewide.

Table 2. Blue grouse harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	1,323	1,129	3,702	2,137	3,546	1,070	12,907
1983	1,707	1,906	5,261	3,373	4,239	2,150	18,636
1984	1,078	1,355	2,121	2,733	3,002	1,066	11,355
1985	1,089	789	3,762	2,437	2,911	731	11,719
1986	1,356	719	3,169	2,109	2,659	1,279	11,291
1987	2,112	1,569	4,371	5,878	4,402	1,098	19,430
1988	1,649	2,492	6,523	5,223	5,950	1,393	23,230
1989	1,447	929	3,436	4,261	2,401	608	13,082
1990	1,469	1,297	3,483	3,616	1,706	715	12,286
1991	1,691	1,554	5,206	5,103	2,656	1,067	17,277
1992	1,843	611	1,817	3,699	1,465	457	9,892
1993	1,016	476	1,118	1,568	1,075	577	5,830
1994	1,313	703	2,025	2,559	1,873	521	8,994
1995	730	813	1,920	1,883	1,274	723	7,343
1996	NO DATA						
1997	1,483	901	3,102	1,900	2,067	734	10,187
1998	1,048	1,493	3,092	2,155	1,597	540	9,925
1999	1,714	2,370	5,479	3,595	3,296	871	17,325
2000	1,734	1,318	2,819	4,814	3,031	1,148	14,864
2001	1,391	1,568	3,504	4,198	2,362	1,256	14,279
2002	2,075	2,413	1,084	3,814	2,737	872	12,995
2003	1,624	1,489	2,279	2,689	2,315	348	10,744
2004	1,852	1,044	2,066	5,173	2,049	366	12,550
2005	727	2,721	2,222	3,580	2,923	902	13,075
2006	572	822	1,826	3,868	1,798	438	9,324
2007	1,742	1,667	1,550	3,260	1,608	477	10,304
2008	980	1,011	2,060	1,956	2,359	245	8,611
2009	692	815	1,801	2,813	1,620	103	7,844
2010	681	1,153	1,552	1,843	2,077	512	7,818
2011	621	1,610	2,225	1,315	1,594	422	7,787
2012	897	2,029	2,296	2,276	2,480	859	10,837
2013	1,672	1,178	1,753	2,118	1,547	473	8,741
2014	1156	1378	1637	2220	2309	719	9,419
2015	684	1486	2345	1734	2221	950	9,420
2016	1312	1217	1074	3281	1234	814	8,932
2017	421	1204	685	1396	1289	311	5,306
2018	949	1281	1330	2234	2213	355	8,363
2019	1659	1479	1204	2243	1163	670	8,418
2020	556	617	874	2039	1015	715	5,816
2021	1735	1688	1811	3013	2142	832	11,221
2022	1925	3023	2610	4051	4757	2077	18,443
2023	2436	1275	2223	3725	4930	1100	15,689

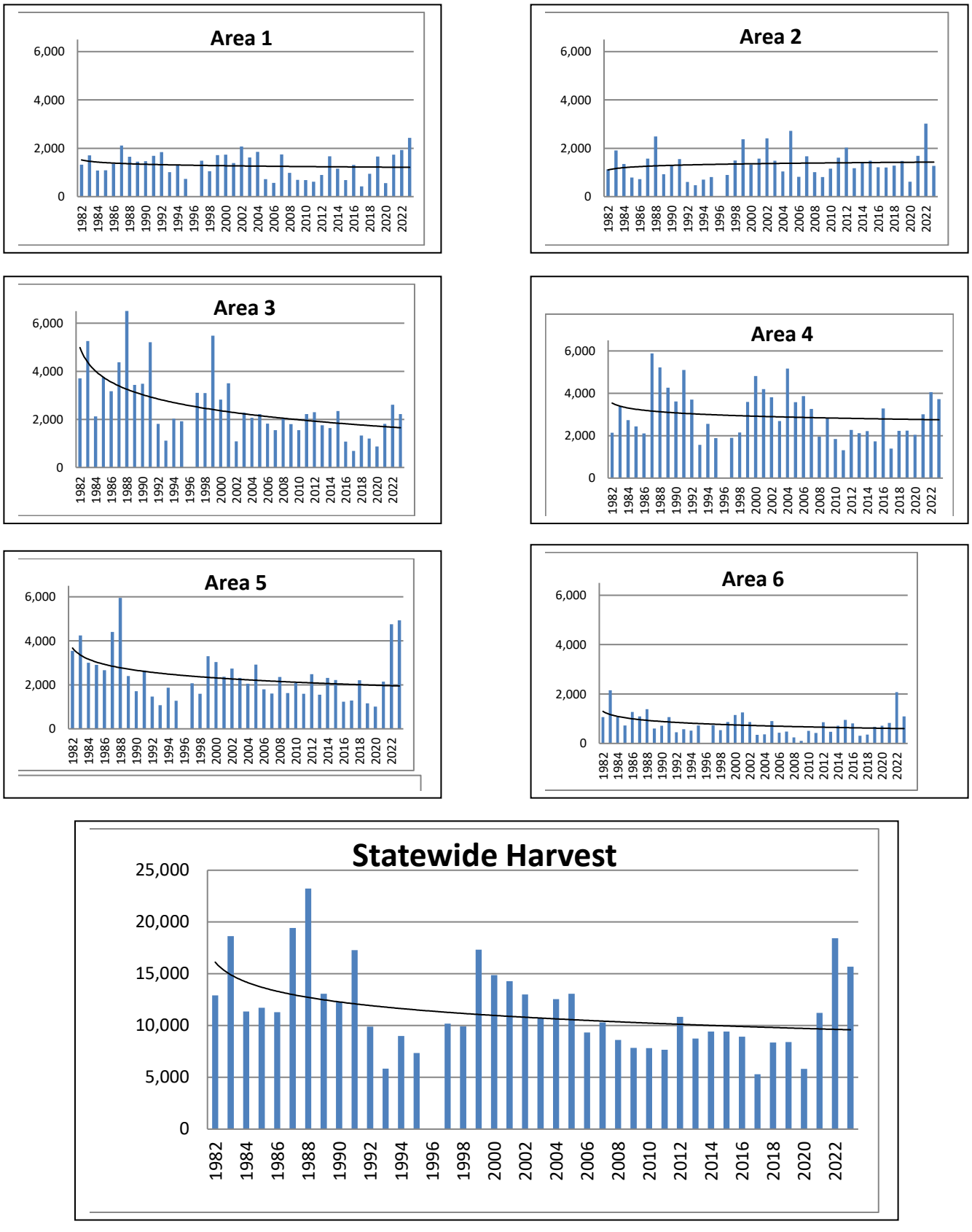


Figure 3. Blue grouse harvest in each management area and statewide.

Table 3. Blue grouse harvest rate (grouse per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	0.6	0.6	0.8	0.5	0.6	0.8	0.7
1983	0.7	0.9	1.2	0.7	0.8	1.1	0.9
1984	0.7	1.0	0.9	0.6	0.8	0.8	0.8
1985	0.5	0.8	1.0	0.6	0.7	0.6	0.7
1986	0.7	0.6	0.9	0.5	0.6	0.9	0.7
1987	0.8	0.9	1.1	1.0	0.8	0.8	0.9
1988	0.6	0.9	1.1	0.7	0.8	0.9	0.8
1989	0.5	0.6	0.8	0.5	0.5	0.4	0.6
1990	0.6	0.9	0.9	0.6	0.4	0.5	0.7
1991	0.7	0.9	1.1	0.8	0.5	0.7	0.8
1992	0.6	0.4	0.6	0.5	0.4	0.5	0.5
1993	0.3	0.2	0.3	0.2	0.3	0.2	0.3
1994	0.5	0.5	0.7	0.5	0.4	0.4	0.5
1995	0.4	0.6	0.7	0.4	0.7	0.4	0.5
1996	NO DATA						
1997	0.6	0.9	1.0	0.4	0.6	0.6	0.6
1998	0.4	0.8	0.9	0.5	0.6	0.4	0.6
1999	0.6	0.9	1.0	0.6	0.6	0.8	0.7
2000	0.5	0.7	0.9	0.7	0.9	0.8	0.7
2001	0.5	0.8	0.8	0.6	0.3	0.6	0.6
2002	0.6	0.8	1.0	0.5	0.8	0.6	0.7
2003	0.5	0.9	1.2	0.6	0.8	0.4	0.7
2004	0.6	0.6	0.7	0.7	0.6	0.3	0.6
2005	0.4	0.8	1.0	0.7	0.5	0.6	0.7
2006	0.4	0.7	0.7	0.5	0.5	0.7	0.5
2007	0.6	0.7	0.8	0.6	0.6	0.4	0.6
2008	0.6	0.8	1.2	0.4	0.7	0.3	0.6
2009	0.4	0.6	0.7	0.6	0.6	0.3	0.6
2010	0.4	0.6	0.7	0.4	0.5	0.5	0.5
2011	0.4	1.0	0.8	0.3	0.4	0.4	0.5
2012	0.4	1.0	0.8	0.5	0.5	0.6	0.6
2013	0.8	0.8	0.8	0.6	0.6	0.5	0.7
2014	0.4	0.8	0.9	0.7	0.6	0.5	0.6
2015	0.4	0.7	1.0	0.4	0.6	0.5	0.6
2016	0.6	0.6	0.5	0.5	0.4	0.6	0.5
2017	0.2	0.7	0.5	0.4	0.5	0.4	0.5
2018	0.4	0.8	0.5	0.4	0.5	0.3	0.5
2019	0.4	0.6	0.5	0.4	0.4	0.3	0.4
2020	0.5	0.6	0.8	0.5	0.4	0.4	0.5
2021	0.3	0.6	0.6	0.5	0.4	0.3	0.4
2022	0.4	0.8	0.7	0.5	0.5	0.5	0.5
2023	0.4	0.6	0.7	0.5	0.6	0.5	0.5

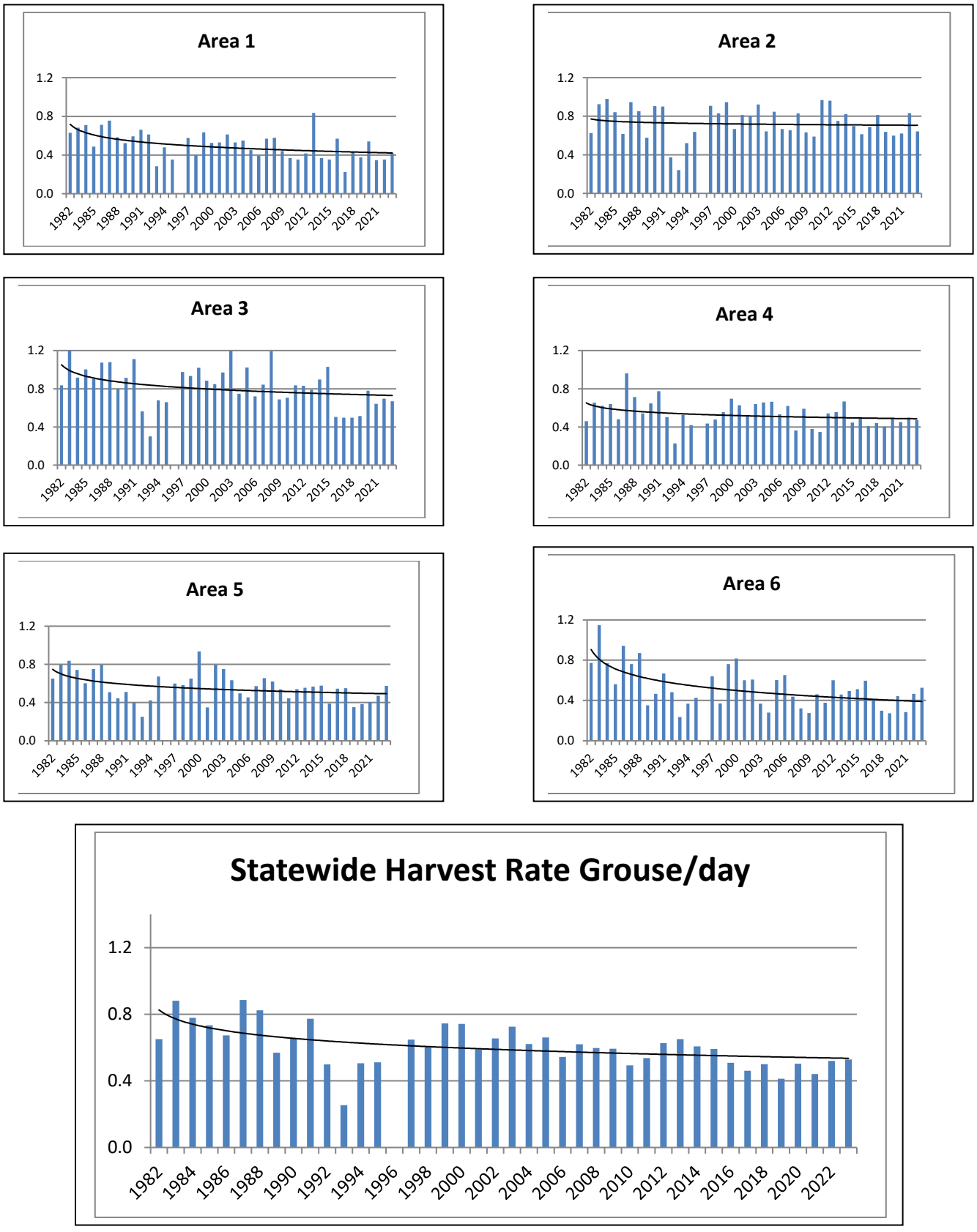


Figure 4. Blue grouse harvest rate (grouse per hunter-day in each management area and statewide.

RUFFED GROUSE

Ruffed grouse inhabit the western and northern mountain ranges of Wyoming, including the Black Hills. They are considered a forest species, and are most often associated with deciduous forests; especially aspen or aspen mixed with conifer and forested riparian areas. There are some seasonal differences within this forest type that are selected for drumming (mating) displays, brood rearing and wintering.

The Department sets a statewide season with a bag limit of 3 daily for hunting ruffed grouse. Prior to 2013, there was an aggregate limit for blue and ruffed grouse. The season has run from September 1 through November 30 since 1985. In 2018 the end date was changed to December 31. Prior to 1985, the season ended on November 15 in most of the state, although a separate hunt area in Converse and Natrona Counties (north end of the Laramie Mountain Range) had more conservative season dates. In 1991, the possession limit was increased from 6 to 9. Ruffed and blue grouse may be taken by any method not specifically prohibited by regulation. Big game hunters frequently take the species incidentally while hunting elk and deer. A substantial number of dedicated wing shooters also hunt mountain grouse, especially in September. As with most gallinaceous birds, there is no evidence regulated hunting has any impact on grouse populations. Grouse fluctuate predominantly in response to changing weather and habitat conditions. Cold, wet springs and late snowfalls during nesting and early brood-rearing can be detrimental to the current year's recruitment.

The Department compiles grouse harvest data from the six common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Ruffed grouse occupy suitable habitat in all areas except #5. The majority of ruffed grouse hunter activity (Fig. 2) and harvest (Fig 3) are in Area 1 (includes mountains around Jackson and north end of Wyoming Range), Area 4 (includes Wind River, Wyoming, and Sierra Madre Mountain ranges), and Area 6 (includes Absaroka and Wind River Mountain ranges).

Harvest rate (grouse per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas, evidenced by higher harvest rates during the 1980s and early 2000s (Fig. 4). However this is less evident in the statewide data, possibly due to regional cycles being enough out of synch to cancel when the data are combined.

At the statewide level, harvest rates fluctuated between 0.2 and 0.8 birds per hunter-day (avg. = 0.6) throughout the period of record (Table 3). Harvest rate were at an all-time high of 0.8 birds per hunter-day in 1983 and 1988, suggesting the grouse population was likewise high then. An alternative explanation is lower numbers of hunters might have resulted in less competition in accessible areas, and more birds bagged per hunter. However, we do not believe hunting pressure on this species has ever been intensive enough to affect harvest rates.

Throughout the period of record, numbers of grouse hunters has increased (Figure 2), the harvest rate is slightly lower (Figure 4) and the total harvest has increased (Figure 3) with the last few years data indicating a substantial boost in interest in hunting ruffed grouse. The reason for increased harvest used to be explained by an increase in the total number of days that hunters have spent pursuing ruffed grouse (Figure 5) but lately the number of hunters has increased substantially. A weak cyclical pattern,

similar to that described above, is also noted in annual numbers of grouse hunters and total harvests. The 2023 harvest survey had the following results: total hunter numbers (3,468) were above the long-term average (2,183) and the most recent 10-year average (2,558), total harvest (11,608) was higher than the long-term average (5,454) and the 10-year average (7,157), and harvest rate (0.6) was equal to the long-term average (0.6) and higher than the 10-year average (0.5). An examination of each management area shows a mixed bag for hunter numbers with 1, 4 and 6 increasing, area 2 stable, and area 3 declining slightly. Harvest numbers are stable in areas 2 and 6, declining in area 3, and increasing in areas 1 and 4 . Harvest rates have declined to varying degrees in all areas.

The pine bark beetle epidemic generated a lot of concern about potential impacts to mountain grouse, which depend on pine forests to varying degrees in different seasons. Although the outbreak reached its peak in the early-mid 2000s, the most heavily impacted area was the mountains in Area 5, which doesn't have a ruffed grouse population. In fact, hunter harvest rates suggest the population has been fairly stable, as does the overall harvest numbers. If the loss of encroaching pine trees in aspen patches aides in aspen becoming more healthy and vigorous, ruffed grouse may benefit in the mid to long-term. Ultimately, the possible impacts of the pine mortality event will be resolved through additional monitoring of harvest trends.

Table 1. Ruffed grouse hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	430	187	363	583	0	270	1,833
1983	740	306	281	500	0	323	2,150
1984	475	168	246	398	0	227	1,514
1985	482	219	284	454	0	361	1,800
1986	637	138	286	547	0	240	1,848
1987	787	220	407	633	0	328	2,375
1988	842	246	527	785	0	493	2,893
1989	849	119	377	714	0	308	2,367
1990	713	153	329	798	37	276	2,306
1991	783	175	394	738	0	343	2,433
1992	899	183	246	810	0	240	2,378
1993	717	241	267	665	102	297	2,289
1994	908	150	296	708	0	291	2,353
1995	632	163	250	652	60	276	2,033
1996	no data						
1997	649	105	204	648	0	190	1,796
1998	591	130	183	565	0	241	1,710
1999	970	280	0	1138	0	230	2,618
2000	786	89	195	786	0	236	2,092
2001	864	129	267	717	0	333	2,310
2002	813	252	79	747	0	284	2,175
2003	814	94	134	535	0	195	1,772
2004	1044	118	246	1085	85	258	2,836
2005	354	180	199	383	0	357	1,473
2006	734	60	292	850	0	229	2,165
2007	891	100	208	914	0	161	2,274
2008	542	139	180	467	0	155	1,483
2009	443	220	175	591	0	150	1,579
2010	493	229	156	566	no data	297	1,741
2011	393	151	257	527	no data	180	1,574
2012	601	117	258	758	no data	267	2,001
2013	710	174	156	476	no data	254	1,770
2014	808	188	183	498	no data	300	1,977
2015	886	135	266	869	no data	281	2,437
2016	865	142	207	784	no data	388	2,386
2017	627	167	126	544	no data	250	1,714
2018	737	147	194	846	no data	334	2,145
2019	856	229	312	816	no data	342	2,620
2020	426	184	177	563	87	288	1,690
2021	1142	262	328	1055	no data	506	3,167
2022	1328	359	444	1290	no data	774	4,052
2023	1276	312	487	1142	no data	459	3,468

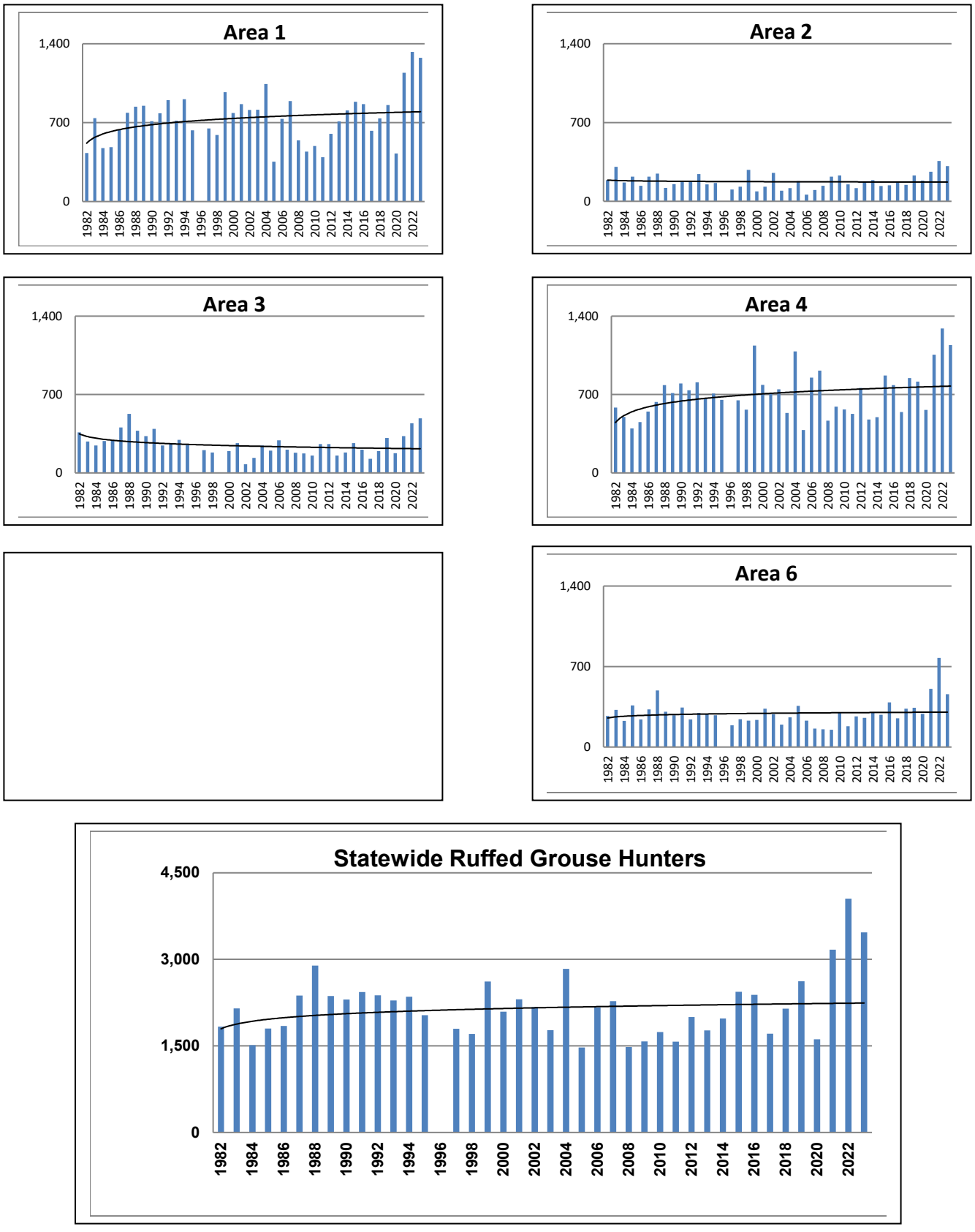


Figure 2. Ruffed grouse hunters in each management area and statewide.

Table 2. Ruffed grouse harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	987	313	1057	1041	0	490	3,888
1983	2853	429	512	879	0	807	5,480
1984	1140	302	512	1360	0	305	3,619
1985	1007	291	293	1008	0	573	3,172
1986	1439	145	371	1018	0	449	3,422
1987	2413	460	528	1319	0	753	5,473
1988	3191	368	666	1548	0	1057	6,830
1989	2799	145	605	1073	0	332	4,954
1990	2802	348	415	1574	31	442	5,612
1991	2339	177	703	1511	0	634	5,364
1992	3395	266	184	1654	0	590	6,089
1993	846	174	272	408	78	297	2,075
1994	2746	224	398	1244	0	376	4,988
1995	1536	216	238	1027	70	531	3,618
1996	no data						
1997	1321	147	558	1468	0	438	3,932
1998	1921	81	176	1067	0	488	3,733
1999	2932	395	0	1788	0	579	5,694
2000	3657	111	326	2044	0	572	6,710
2001	3728	511	629	1466	0	812	7,146
2002	2795	641	53	1646	0	429	5,564
2003	4254	246	281	1509	0	500	6,790
2004	3939	167	271	2092	71	428	6,968
2005	1332	539	209	665	0	437	3,182
2006	2409	219	307	2044	0	566	5,545
2007	3092	113	154	2540	0	324	6,223
2008	1687	253	363	801	0	217	3,321
2009	1322	391	1155	1196	0	158	4,222
2010	1367	380	217	925	no data	651	3,540
2011	1286	259	370	628	no data	479	3,140
2012	3815	305	485	2143	no data	511	7,259
2013	2579	330	126	878	no data	559	4,472
2014	3966	441	152	1424	no data	640	6,632
2015	4517	498	288	2412	no data	736	8,451
2016	4548	118	192	2354	no data	1112	8,324
2017	1755	299	131	1120	no data	663	3,968
2018	3122	240	126	2114	no data	547	6,153
2019	3097	339	227	1317	no data	434	5,446
2020	779	329	239	1091	114	522	3,074
2021	4395	369	337	2093	no data	951	8,145
2022	4407	649	670	2632	no data	1529	9,887
2023	5138	459	862	3592	no data	1557	11,608

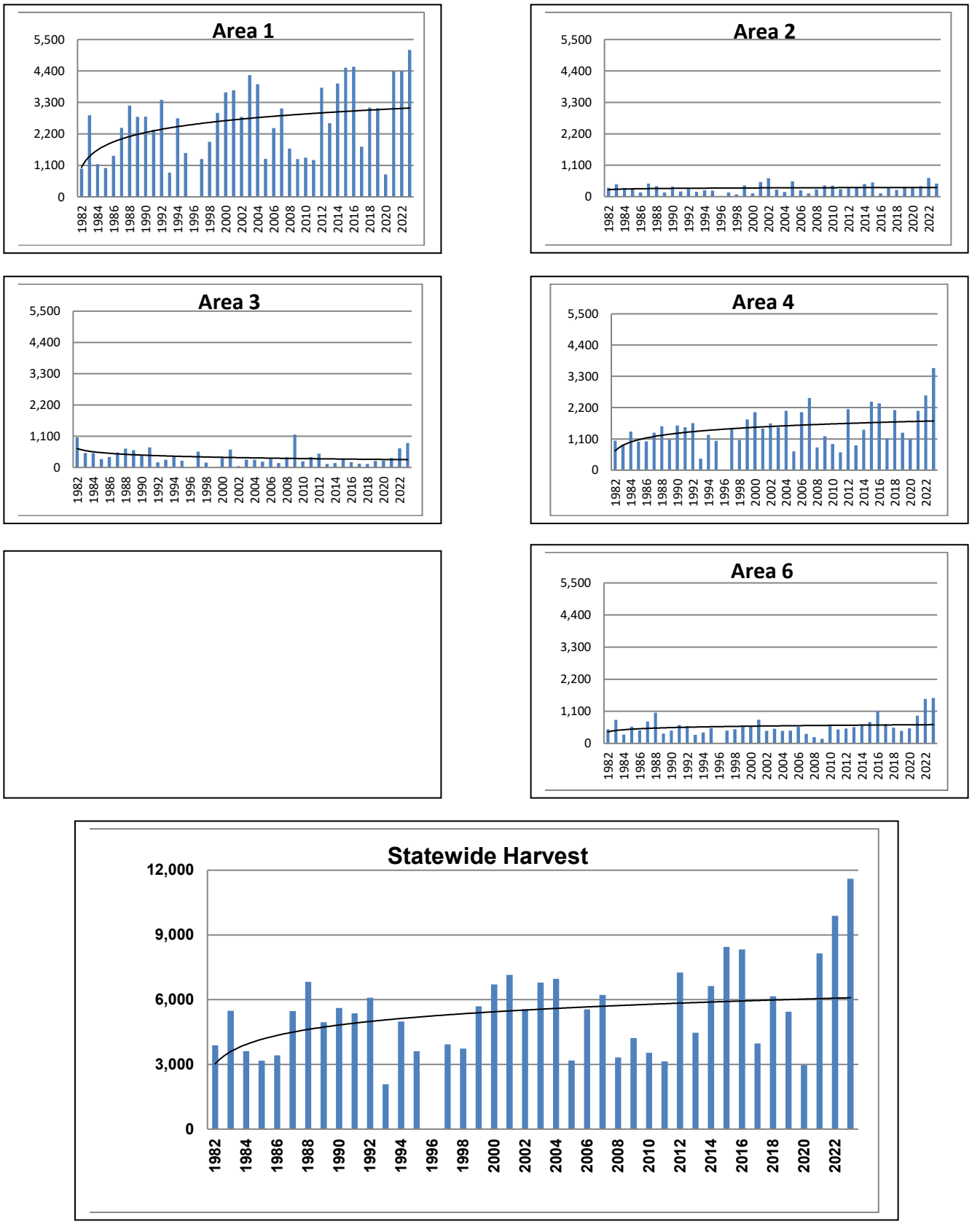


Figure 3. Ruffed grouse harvest in each management area and statewide.

Table 3. Ruffed grouse harvest rate (grouse per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	0.6	0.6	1.2	0.6		0.8	0.8
1983	1.2	0.5	0.8	0.4		0.9	0.8
1984	0.7	0.6	0.7	0.8		0.4	0.6
1985	0.5	0.8	0.3	0.7		0.5	0.5
1986	0.6	0.5	0.4	0.5		0.7	0.5
1987	0.8	0.5	0.6	0.5		0.8	0.6
1988	0.9	0.6	0.5	0.7		0.9	0.7
1989	0.8	0.3	0.4	0.4		0.3	0.5
1990	0.9	0.7	0.5	0.6	0.2	0.4	0.6
1991	0.7	0.4	0.6	0.6		0.5	0.6
1992	0.9	0.3	0.2	0.5		0.7	0.5
1993	0.3	0.1	0.2	0.1	0.1	0.3	0.2
1994	0.7	0.3	0.4	0.5		0.4	0.5
1995	0.5	0.4	0.2	0.4	0.5	0.5	0.4
1996	no data						
1997	0.4	0.4	0.4	0.4		0.5	0.4
1998	0.6	0.2	0.3	0.5		0.5	0.4
1999	0.6	0.5		0.4		0.6	0.5
2000	0.8	0.2	0.5	0.5		0.6	0.5
2001	1.0	0.6	0.9	0.5		0.7	0.7
2002	0.7	0.5	0.2	0.4		0.4	0.5
2003	0.8	0.8	0.4	0.5		0.7	0.6
2004	0.7	0.2	0.2	0.4	0.3	0.5	0.4
2005	0.7	0.6	0.2	0.3		0.4	0.4
2006	0.7	0.7	0.3	0.5		0.7	0.6
2007	0.7	0.3	0.2	0.7		0.5	0.5
2008	0.6	0.5	0.6	0.3		0.4	0.5
2009	0.6	0.4	1.2	0.4		0.3	0.6
2010	0.4	0.4	0.2	0.4		0.6	0.4
2011	0.7	0.3	0.3	0.3		0.5	0.4
2012	0.9	0.5	0.4	0.5		0.6	0.6
2013	0.6	0.6	0.2	0.5		0.6	0.5
2014	0.7	0.6	0.3	0.6		0.5	0.6
2015	1.0	0.6	0.3	0.5		0.4	0.7
2016	1.0	0.2	0.4	0.6		0.6	0.7
2017	0.5	0.4	0.2	0.5		0.6	0.5
2018	0.7	0.5	0.2	0.5		0.5	0.6
2019	0.5	0.3	0.1	0.3		0.3	0.4
2020	0.4	0.4	0.3	0.3		0.5	0.4
2021	0.5	0.4	0.2	0.3		0.5	0.4
2022	0.6	0.4	0.3	0.4		0.5	0.5
2023	0.7	0.4	0.4	0.5		0.7	0.6

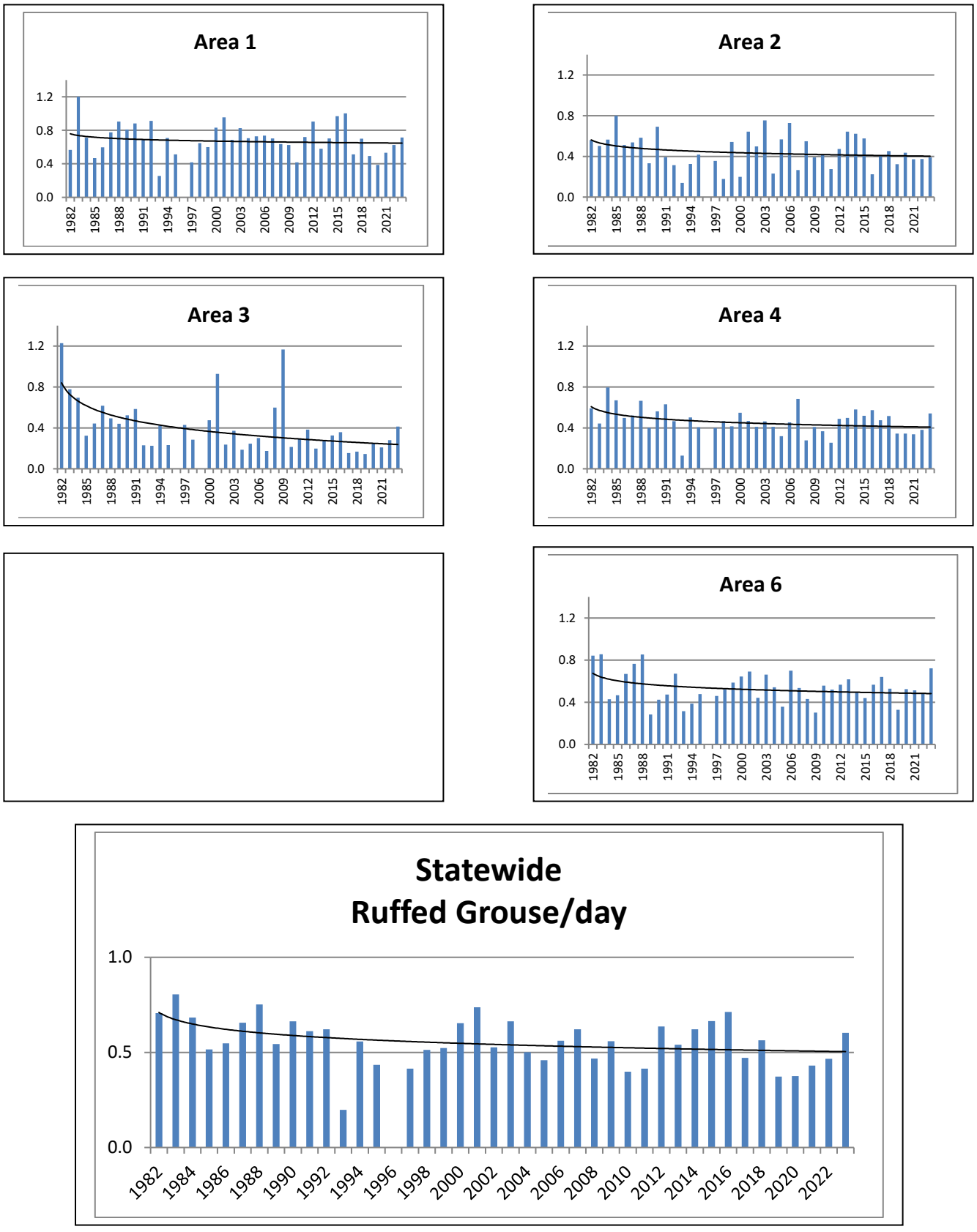


Figure 4. Ruffed grouse harvest rate (grouse per hunter-day in each management area and statewide).

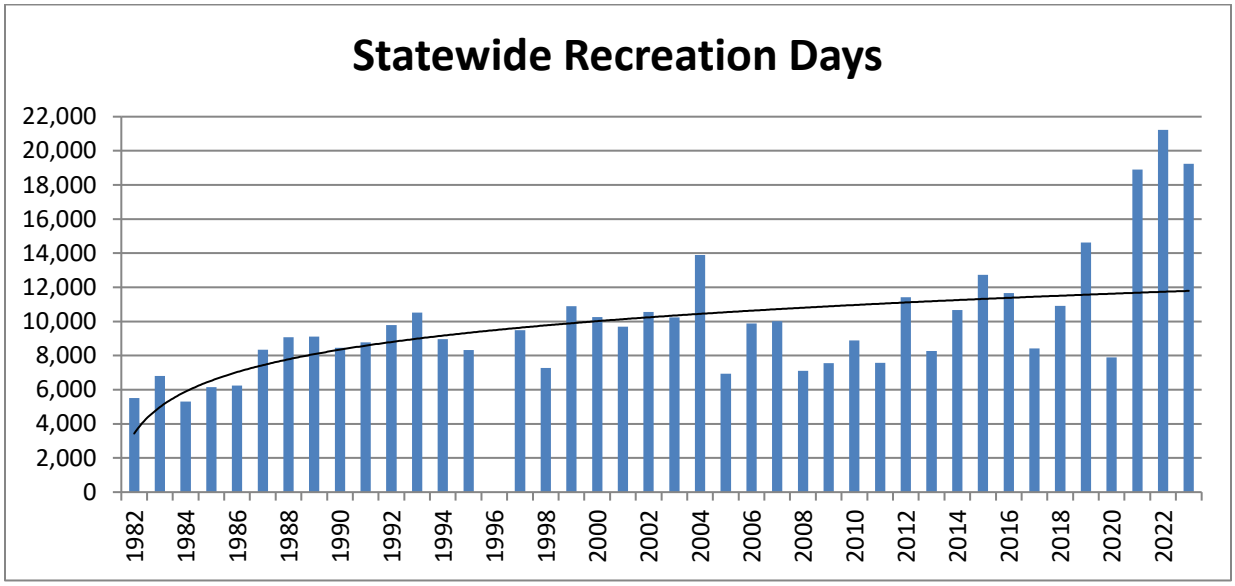


Figure 5. Statewide Ruffed Grouse Recreation Days.

SHARP-TAILED GROUSE

Sharp-tailed grouse in Wyoming include two subspecies: Columbian and Plains. The Columbian subspecies is found mostly west of the Continental Divide with the largest population found on the western slope of the Sierra Madre Mountains near Baggs in south central Wyoming. This population is the northernmost extension of a larger population in Colorado. There is another small population occasionally observed in Jackson Hole, which is the easternmost extension of a larger population in Idaho. Historically they may have been found in appropriate habitat in the southwestern corner of the state. The Plains Sharp-tailed Grouse subspecies can be found from the eastern slopes of the Bighorn Mountains eastward into the Powder River Basin, and the eastern slopes of the Laramie Range eastward to Nebraska. The two subspecies of Sharp-tailed Grouse have slightly different habitat preferences. The Columbian subspecies prefers mixed shrub communities in mid-elevation foothills, but during fall and winter will often use ridges or other places that blow free of snow, or move to wooded, riparian areas. The Plains subspecies will also use mixed shrub communities, but is more commonly found and more abundant in lower elevation, open, grass-dominated habitats with little shrub cover, often in proximity to agriculture. Local populations did well in the late 1990's when the federal government's Conservation Reserve Program (CRP) increased the acres enrolled in the program and farmers planted a favorable seed mix on highly erodible crop lands, converting them into favorable habitat for sharp-tails, although many of the positive impacts have faded since.

The Department has altered the hunting seasons several times since 1982 in response to changing conditions. From 1982 to 1988 hunting was only allowed in the northeast counties. From 1989 to 1993 hunting was allowed in the entire state. In 1994, the Columbian subspecies was protected by closing hunting west of the Continental Divide, and that is still in effect. Season dates have changed quite often, with the hunting starting anywhere from early November through most of the 1980's, then moving to an October 1st opening date in 1988, and then to September 1st in 1992. The seasons have generally closed from mid to late December. The daily and possession limits went as high as 4 and 12 respectively in 1991, but have remained at 3 and 9 since 1996. As with most gallinaceous birds, there is no evidence regulated hunting has any impact on grouse populations. Grouse fluctuate predominantly in response to changing weather and habitat conditions. Cold, wet springs and late snowfalls during nesting and early brood-rearing can be detrimental to the current year's recruitment, but Sharp-tailed Grouse populations show the greatest impact in years with severe drought.

The Department compiles grouse harvest data from the six common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Sharp-tailed grouse occupy suitable habitat in areas 3 - 6. The majority of Sharp-tailed grouse hunter activity (Fig. 2) and harvest (Fig 3) are in Area 3 (plains and foothills in the northeast quarter of the state), and Area 5 (east of the Laramie Mountains). Hunting is closed now for the population in Area 4, and Area 6 populations and hunting opportunities are inconsistent and small.

Harvest rate (grouse per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is downward (Fig. 4). The much higher hunter numbers and harvest in the late 1990's from the CRP program caused almost no change in harvest rates.

At the statewide level, harvest rates fluctuated between 0.4 and 1.3 birds per hunter-day (avg. = 0.7) throughout the period of record (Table 3). Harvest rates were highest before 1992, before the large increase in population, hunters and harvest from the CRP program. Local hunters may have been familiar enough with grouse locations and patterns then to make them more efficient than those that started hunting them later in other parts of the state. An alternative explanation is lower numbers of hunters might have resulted in less competition in accessible areas, and more birds bagged per hunter. However, we do not believe hunting pressure on this species has ever been intensive enough to affect harvest rates.

Throughout the period of record, numbers of grouse hunters has slowly increased, boosted by the increased interest after the CRP program (Figure 2), the total harvest trend has been stable (Figure 3) and the harvest rate has steadily declined (Figure 4). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of grouse hunters and total harvests. The 2023 harvest survey had the following results: total hunter numbers (1,445) were higher than the long-term average (1,132) and the most recent 10-year average (1,207), total harvest (2,888) was higher than the long-term average (2,850) and above the most recent 10-year average (2,862), and the harvest rate (0.4) was below the long-term average (0.7) and the most recent 10-year average (0.6). An examination of the two main Sharp-tailed Grouse areas shows opposite trends. Area 3 is down for hunter numbers, harvest and harvest rate, while Area 5 has an increasing trend in all respects. However, Area 3 still has the majority of Sharp-tailed grouse hunting occurring there.

Sharp-tailed grouse are impacted by weather conditions and timing, but also have responded to changes in the patterns of land use by the local land managers. Changes in the crops that are planted have local impacts. The CRP program represented a change in farming practices on a large scale, and had a large positive impact on Sharp-tail populations. The CRP influence quickly faded, but did not entirely go away, as less desirable plants came to dominate the acres under CRP. Survey routes were initiated to monitor Sharp-tailed grouse populations in 1996 (Figure 5). Data from these survey routes show the population peaks after the initial period of CRP, and fluctuations influenced by yearly factors such as spring weather and overall drought since then.

Table 1. Sharp-tailed grouse hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982			964	0	0		964
1983			1096	0	0		1,096
1984			862	0	0		862
1985			547	0	0		547
1986			637	0	0		637
1987			935	0	0		935
1988			914	0	0		914
1989			868	54	56		978
1990			765	18	105		888
1991			636	30	260		926
1992			577	59	475		1,111
1993			518	49	442		1,009
1994			537	33	324		894
1995			437	4	275		716
1996	no data						
1997			690	0	232		922
1998			945	6	648	12	1,599
1999			1898	7	727	0	2,632
2000			2206	18	985	11	3,209
2001			1205	18	678	9	1,901
2002			529	14	198	7	741
2003			387	4	449	4	840
2004			477	0	477	5	954
2005			552	0	542	34	1,094
2006			757	0	304	63	1,061
2007			533	0	267	0	800
2008			678	5	254	0	937
2009			676	23	359	0	1,058
2010			666	no data	405	0	1,071
2011			846	no data	360	22	1,323
2012			650	no data	201	33	884
2013			437	no data	215	0	652
2014			626		203	15	844
2015			840		256	28	1,124
2016			673		343	23	1,039
2017			472		237	33	742
2018			665		355	21	1,027
2019			934		431	80	1,408
2020			539		291	59	882
2021			959		660	111	1,690
2022			1013		801	62	1,872
2023			861		571	27	1,445

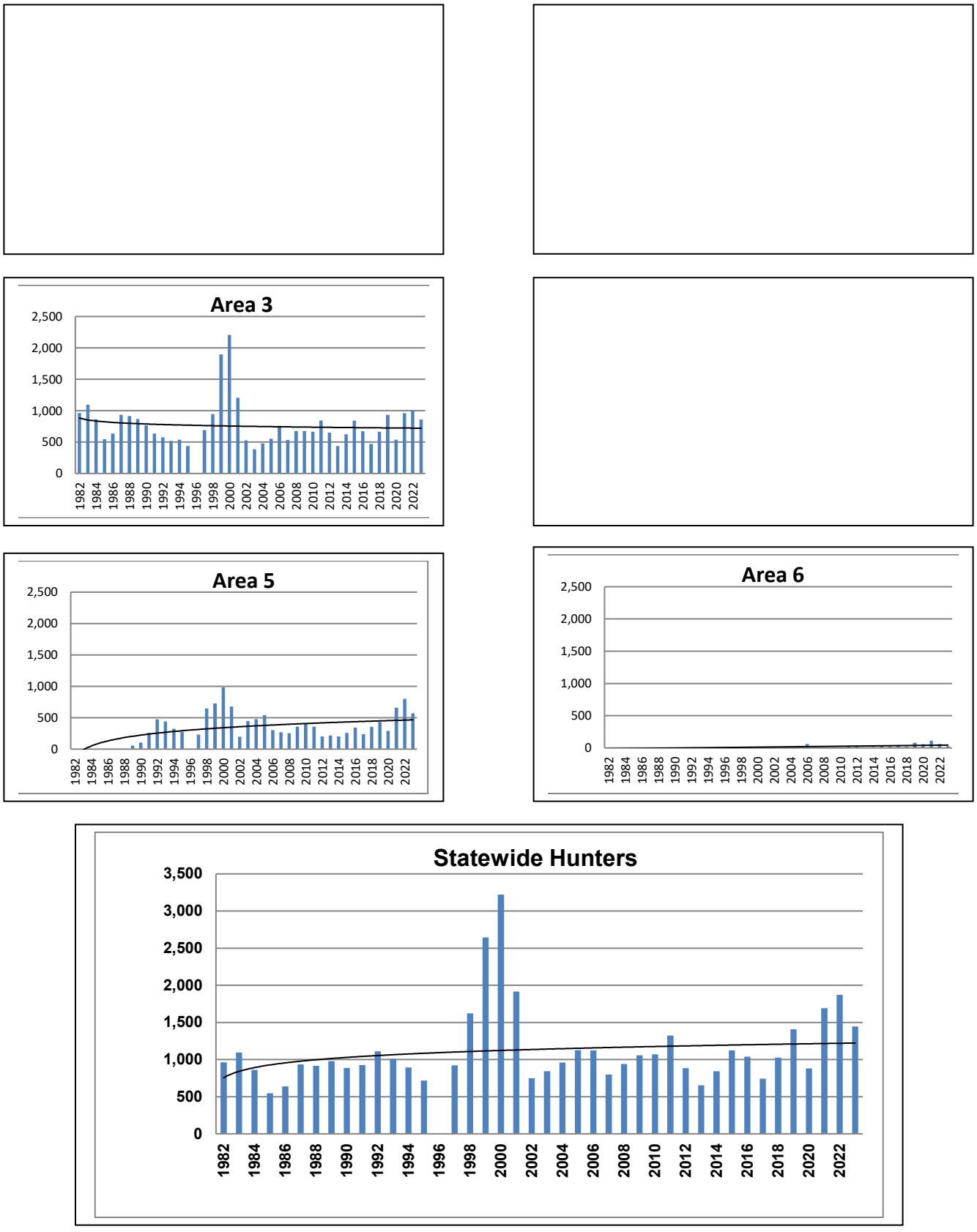


Figure 2. Sharp-tailed grouse hunters in each management area and statewide.

Table 2. Sharp-tailed grouse harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982			3168	0	0		3,168
1983			4382	0	0		4,382
1984			1644	0	0		1,644
1985			1250	0	0		1,250
1986			1495	0	0		1,495
1987			3614	0	0		3,614
1988			3050	0	0		3,050
1989			1754	42	39		1,835
1990			1577	59	124		1,760
1991			1730	55	555		2,340
1992			1026	92	1000		2,118
1993			742	29	1019		1,790
1994			1069	91	736		1,896
1995			986	0	498		1,484
1996	no data						
1997			2096	0	479		2,575
1998			3403	0	1386	6	4,789
1999			8065	45	1239	0	9,349
2000			9490	59	2127	0	11,676
2001			2278	69	1598	18	3,945
2002			754	13	496	7	1,263
2003			876	0	1049	43	1,925
2004			769	0	660	0	1,429
2005			1280	0	1412	21	2,692
2006			1737	0	555	45	2,292
2007			1121	0	448	0	1,569
2008			1589	5	307	0	1,901
2009			1306	24	385	0	1,715
2010			1911	no data	517	0	2,428
2011			2647	no data	498	7	3,315
2012			2000	no data	165	27	2,192
2013			988	no data	194	0	1,182
2014			1254		277	4	1,535
2015			3360		556	13	3,929
2016			1744		635	2	2,381
2017			1055		238	23	1,316
2018			1023		380	7	1,411
2019			3227		754	9	3,990
2020			1539		873	163	2,575
2021			2287		1148	70	3,505
2022			3999		1090	0	5,089
2023			2122		746	20	2,888

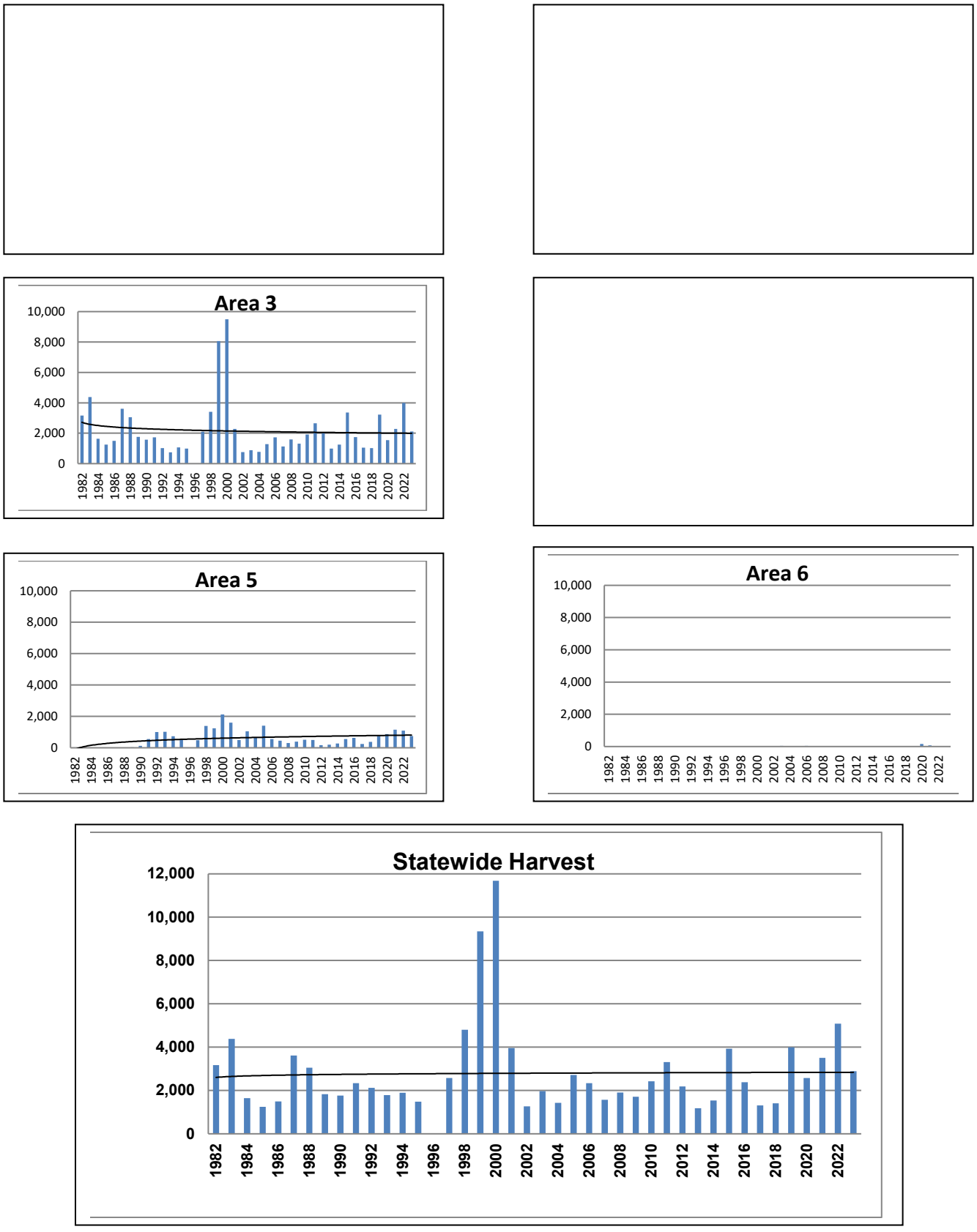


Figure 3. Sharp-tailed grouse harvest in each management area and statewide.

Table 3. Sharp-tailed grouse harvest rate (grouse per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982			1.0				1.0
1983			1.3				1.3
1984			0.9				0.9
1985			0.8				0.8
1986			0.8				0.8
1987			1.3				1.3
1988			1.1				1.1
1989			0.8	0.2	0.4		0.4
1990			0.7	1.3	0.5		0.8
1991			1.0	0.9	1.0		1.0
1992			0.7	0.6	0.8		0.7
1993			0.4	0.2	0.8		0.5
1994			0.6	1.2	0.8		0.9
1995			0.6	0.0	0.7		0.4
1996	no data						
1997			0.9		0.9		0.9
1998			0.8	0.0	0.6	0.3	0.5
1999			0.8	1.2	0.6		0.9
2000			0.9	0.8	0.6	0.0	0.8
2001			0.6	0.4	0.7	0.8	0.6
2002			0.3	0.7	0.6	0.5	0.5
2003			0.5	0.0	0.6	2.7	0.4
2004			0.4		0.4	0.0	0.4
2005			1.0		0.6	0.4	0.8
2006			0.7		0.7	0.2	0.7
2007			0.6		0.5		0.5
2008			0.7	0.3	0.3		0.4
2009			0.5	1.0	0.4		0.5
2010			0.6		0.4		0.5
2011			0.7		0.5	0.1	0.6
2012			0.5		0.2	0.3	0.5
2013			0.6		0.3		0.5
2014			0.6		0.3	0.1	0.5
2015			1.1		0.7	0.0	0.9
2016			0.7		0.4	0.0	0.6
2017			0.7		0.4	0.5	0.6
2018			0.4		0.4	0.1	0.4
2019			0.6		0.5	0.0	0.6
2020			0.6		0.8	0.4	0.6
2021			0.5		0.6	0.2	0.5
2022			0.7		0.4	0.0	0.6
2023			0.5		0.3	0.2	0.4

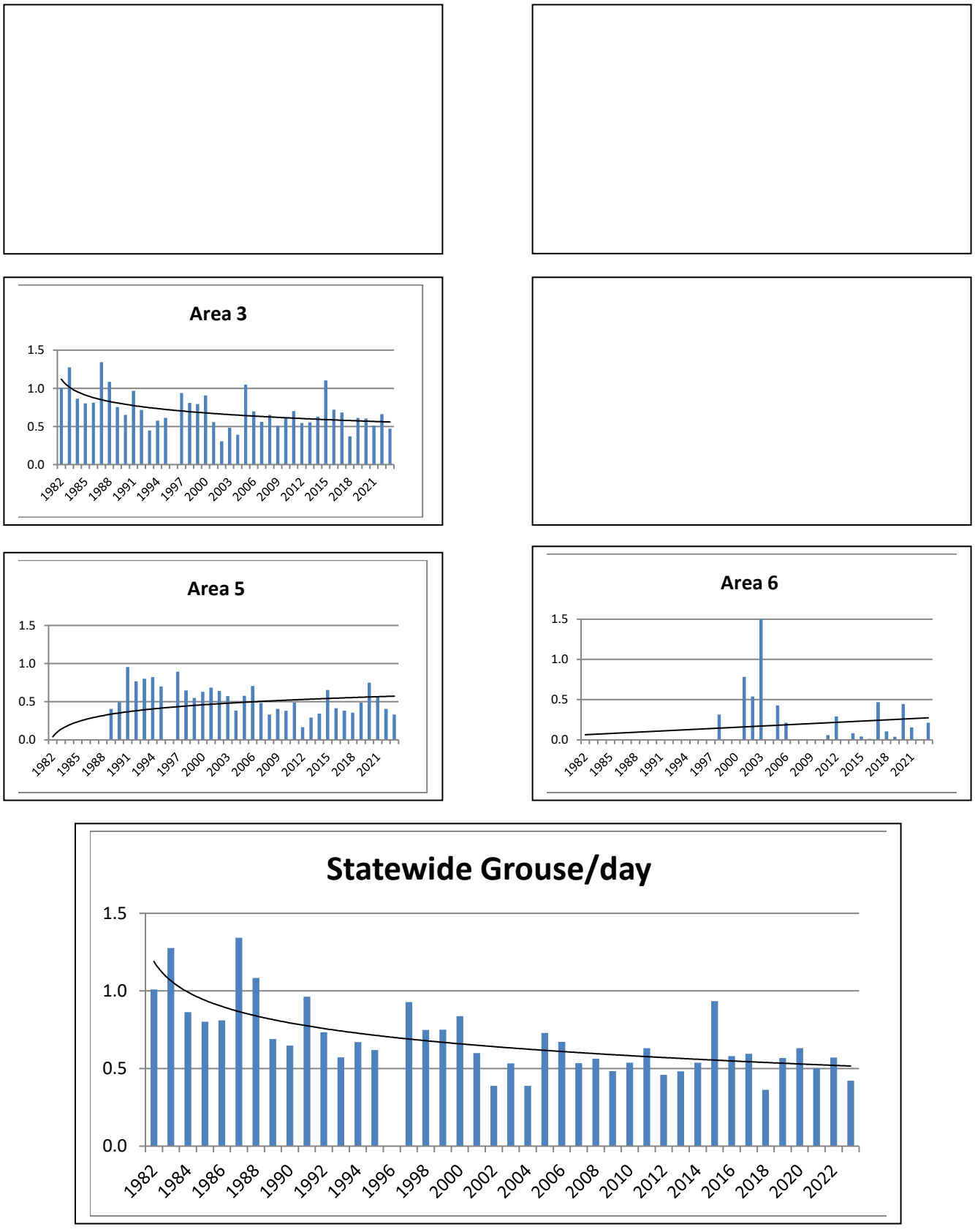


Figure 4. Sharp-tailed grouse harvest rate (grouse per hunter-day in each management area and statewide).

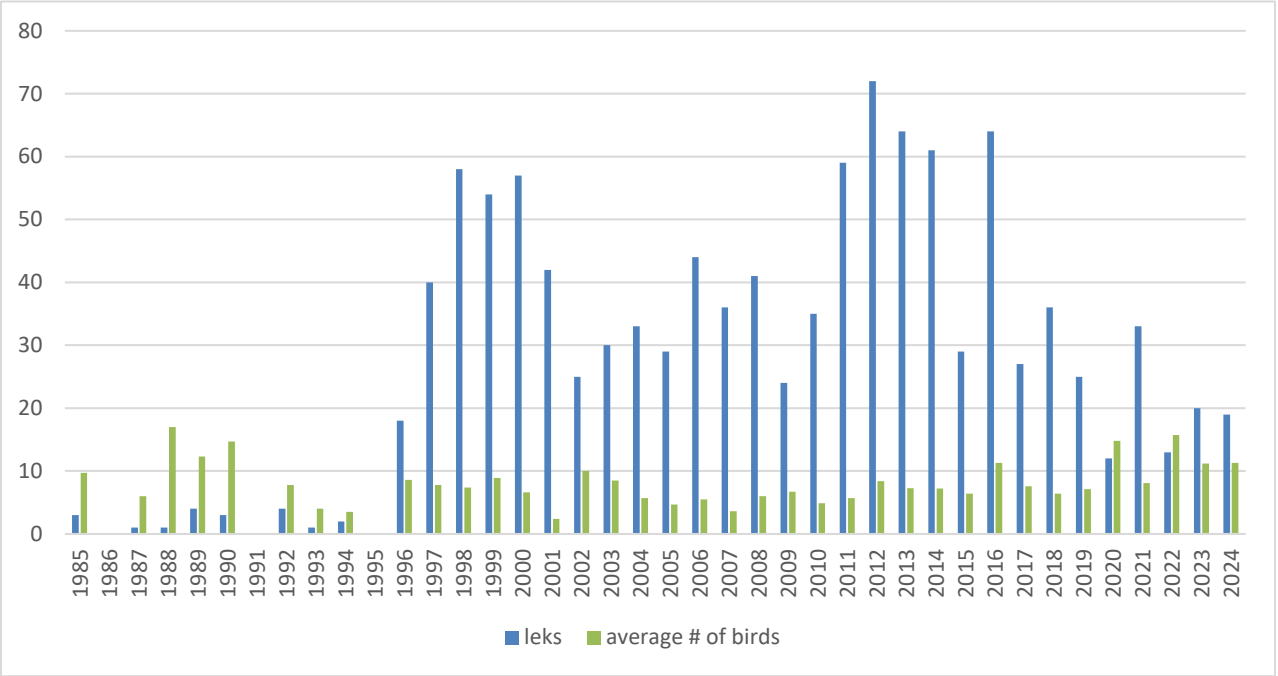


Figure 5. Total Sharp-tailed grouse leks and average grouse in attendance. Survey routes began in 1996.

CHUKAR PARTRIDGE

The Chukar is an introduced upland bird species. They were first released in Wyoming by private individuals near Cody in 1934. The first release by the department came in 1938, and the first hunting season took place in 1955. The Flaming Gorge area south of Green River and Rock Springs had pen-raised birds released there as late as 1947, and wild-caught birds were released there in 1955 and 1956. Records indicate that the origin of these birds was India. Chukars with origins in Turkey were also released in the Flaming Gorge area, as well as along the Powder River in Campbell County. Through luck or design, the very first places that Chukars were released around Cody and the Bighorn Basin ultimately turned out to be the best Chukar habitat in the state. They inhabit rougher, dryer country than other upland birds and can withstand drought conditions better, although extreme drought and deep winter snows can affect survival. Chukars have been introduced into many parts of the state, and there are small populations scattered throughout where there is appropriate habitat. Like other gallinaceous birds, Chukar populations can increase quickly in response to favorable conditions, as indicated by harvest and hunter interest.

The Department has altered the hunting seasons and limits several times since 1982 in response to changing conditions. From 1982 to 1987, the daily and possession limit was 3 and 6 respectively, and seasons started in November and ended in December. In 1983-4, Campbell County was a separate hunt area with a shorter season. In 1988, hunting started October 1 and went through December 15, and since then has changed numerous times, beginning as early as September 15, and ending as late as January 31. Between 2007 and 2016, it stayed at October 1 to January 31. In 2017 the season started September 15th, and that continued through 2022. In 2023, the season was extended through February, but in 2024 it reverted back to the end of January. The daily and possession limits have been on a slow increase. In 1991, they went to 4 daily and 12 in possession, and in 2007 increased to 5 and 15. In 2000, the limits were combined with Hungarian Partridge, but that only lasted one year. From 1997-2001, Sweetwater County was closed to hunting due to low population numbers. As with most gallinaceous birds, there is no evidence regulated hunting has any impact on Chukar populations. Chukars fluctuate predominantly in response to changing weather and habitat conditions. Deep snows are detrimental to wintering populations, and severe drought reduces survival, especially of chicks.

The Department compiles Chukar harvest data from the six common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Chukars occupy suitable habitat in Areas 2 - 6. The majority of Chukar hunter activity (Fig. 2) and harvest (Fig 3) is in Area 2 (Bighorn Basin), with greatly reduced amounts of hunting in Area 3 (Powder River Basin) and Area 6 (Wind River Basin). Areas 4 and 5 have small populations, and Area 1 has no Chukar habitat.

Harvest rate (Chukars per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is upward, differing from other upland game (Fig. 4).

At the statewide level, harvest rates fluctuated between 0.2 and 1.3 birds per hunter-day (avg. = 0.8) throughout the period of record (Table 3). The total number of hunters has remained stable, but because of the increasing harvest rates and more days hunting, the total harvest has increased since

1982. Habitat conditions appear to be favoring Chukar populations in the core area of the Bighorn Basin where public land allows good access, but other areas are basically stable in hunter participation and harvest. Harvest rates do not appear to be affected by the quantity of hunter pressure.

Throughout the period of record, numbers of Chukar hunters have varied widely, but the result long-term has been stable. The harvest rate trend has been increasing (Figure 4) and the total harvest has trended upward (Figure 3). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of Chukar hunters and total harvests. The last two years' (2022-23) harvest reports easily have the two highest totals for Chukar harvest statewide. The 2023 harvest survey had the following results: total hunter numbers (2,785) were above the long-term average (1,968) and also above the 10-year average (2,165), total harvest (16,739) is the highest on record and is higher than the long-term average (6,277) and higher than the 10-year average (9,238), and the harvest rate was above the long-term average (0.8) and above the 10-year average (0.9). A breakdown of each management area shows that Area 2 has a downward trend in hunter numbers, while Areas 3-6 are stable to increasing. For total harvest, Areas 2 and 6 have seen a good upward trend, while Areas 3-5 are stable to slightly increasing. Regarding the harvest rate, all areas are stable to slightly increasing.

Table 1. Chukar hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	9	1802	159	89	12	122	2,193
1983	0	2604	267	92	31	295	3,289
1984	0	1506	117	130	17	146	1,916
1985	0	1015	131	126	0	167	1,439
1986	0	802	132	133	14	130	1,211
1987	0	1130	295	134	15	120	1,694
1988	0	2081	416	157	33	234	2,921
1989	0	1612	335	152	18	210	2,327
1990	0	1497	332	40	12	118	1,999
1991	0	1267	205	61	0	133	1,666
1992	0	1372	241	73	12	166	1,864
1993	0	1086	189	70	28	127	1,500
1994	0	704	92	25	28	80	929
1995	0	852	132	27	45	67	1,123
1996	No Data						
1997	0	923	133	14	14	155	1,239
1998	0	1450	277	0	55	176	1,958
1999	103	2154	739	15	125	139	3,275
2000	0	1989	997	12	65	370	3,433
2001	0	1156	329	14	33	306	1,838
2002	0	896	190	6	53	151	1,296
2003	0	841	132	69	57	126	1,225
2004	5	1000	110	36	7	169	1,327
2005	0	1828	190	28	6	413	2,465
2006	0	1500	190	87	0	186	1,963
2007	0	1468	67	68	0	192	1,795
2008	0	1762	79	55	28	233	2,157
2009	0	1583	186	32	28	218	2,047
2010	2	1342	272	144	52	262	2,074
2011	0	1085	262	122	48	210	1,727
2012	10	1202	220	64	98	240	1,824
2013	0	903	153	52	63	166	1,337
2014	0	1047	200	45	26	364	1,682
2015	0	1396	237	45	39	422	2,139
2016	0	1001	229	54	36	361	1,681
2017	0	880	162	49	49	275	1,415
2018	0	1285	225	126	96	440	2,059
2019	14	1392	220	140	64	420	2,119
2020	4	1137	130	40	14	393	1628
2021	38	1739	242	145	39	639	2,662
2022	22	2042	341	216	143	998	3,479
2023	0	1839	410	218	114	450	2,785

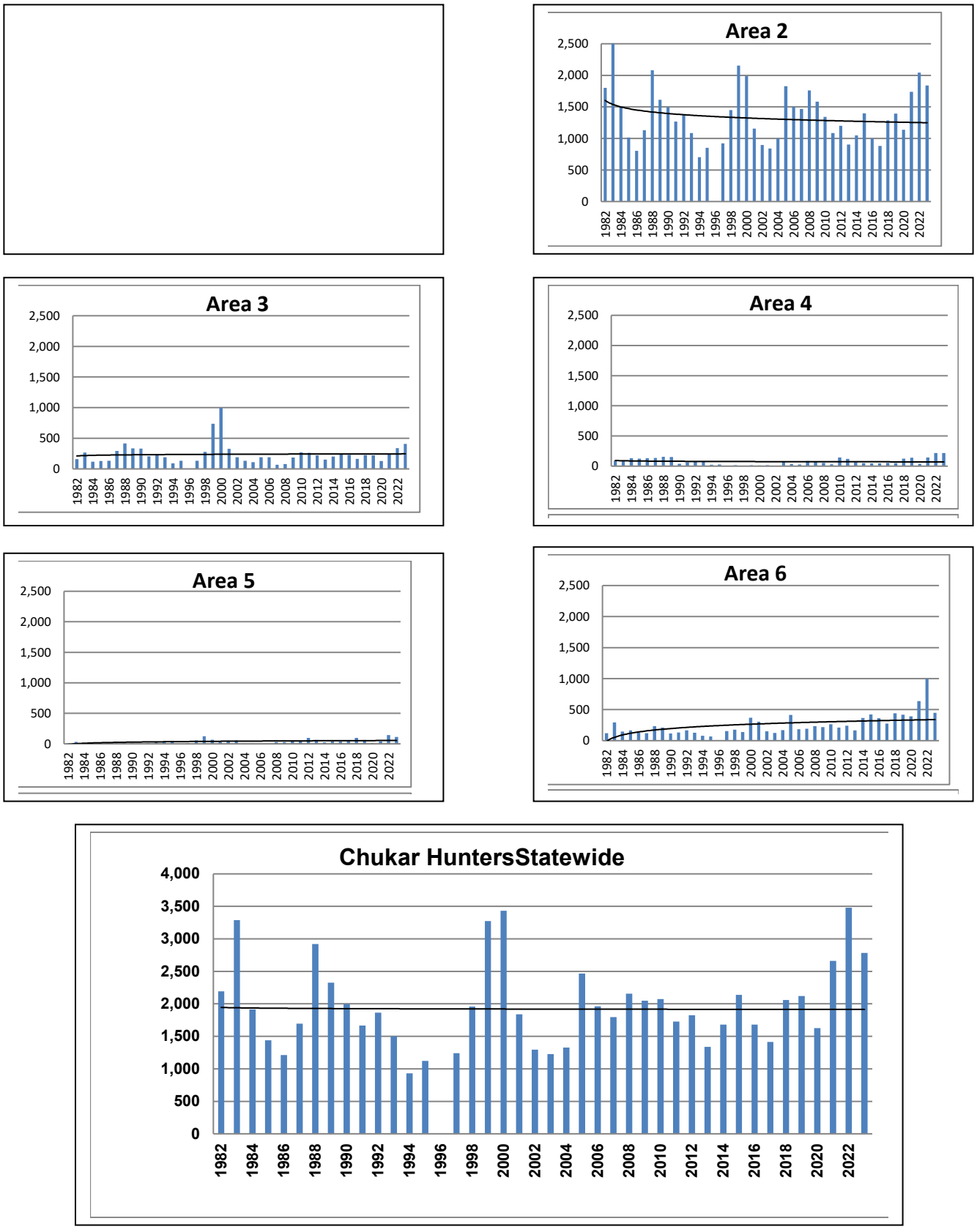


Figure 2. Chukar hunters in each management area and statewide.

Table 2. Chukar harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	67	4106	203	48	36	140	4,600
1983	0	8761	960	171	73	1281	11,246
1984	0	2074	255	234	0	219	2,782
1985	0	924	300	75	0	304	1,603
1986	0	637	183	54	15	149	1,038
1987	0	2493	739	357	0	166	3,755
1988	0	6171	1208	374	24	373	8,150
1989	0	3812	805	135	19	284	5,055
1990	0	3457	501	0	19	257	4,234
1991	0	3675	740	0	0	470	4,885
1992	0	3539	492	59	13	300	4,403
1993	0	1501	133	37	66	77	1,814
1994	0	696	241	0	69	62	1,068
1995	0	1061	221	17	131	29	1,459
1996	No Data						
1997	0	2761	273	0	42	374	3,450
1998	0	5999	869	0	188	495	7,551
1999	239	7631	3502	22	250	401	12,045
2000	0	6317	2822	23	83	771	10,016
2001	0	2269	476	28	61	493	3,327
2002	0	2102	329	0	429	258	3,118
2003	0	2886	289	274	65	271	3,785
2004	0	2406	272	132	27	878	3,715
2005	0	7394	880	3	11	2622	10,910
2006	0	6864	634	201	0	616	8,315
2007	0	6626	267	187	0	529	7,609
2008	0	7487	140	0	0	274	7,901
2009	0	5805	803	58	189	275	7,130
2010	19	5140	661	240	121	563	6,744
2011	0	2667	1073	154	86	678	4,658
2012	0	4305	535	29	131	429	5,429
2013	0	2001	373	71	171	583	3,199
2014	0	4291	470	128	43	1291	6,223
2015	0	7400	754	53	38	4289	12,534
2016	0	3326	623	42	88	1837	5,916
2017	0	2720	318	81	182	859	4,160
2018	0	5571	425	114	298	878	7,286
2019	29	5733	324	72	191	1237	7,586
2020	19	7234	225	84	4	572	8138
2021	10	5780	456	169	356	1385	8156
2022	43	10177	849	423	446	3701	15639
2023	0	12072	2217	445	313	1692	16,739

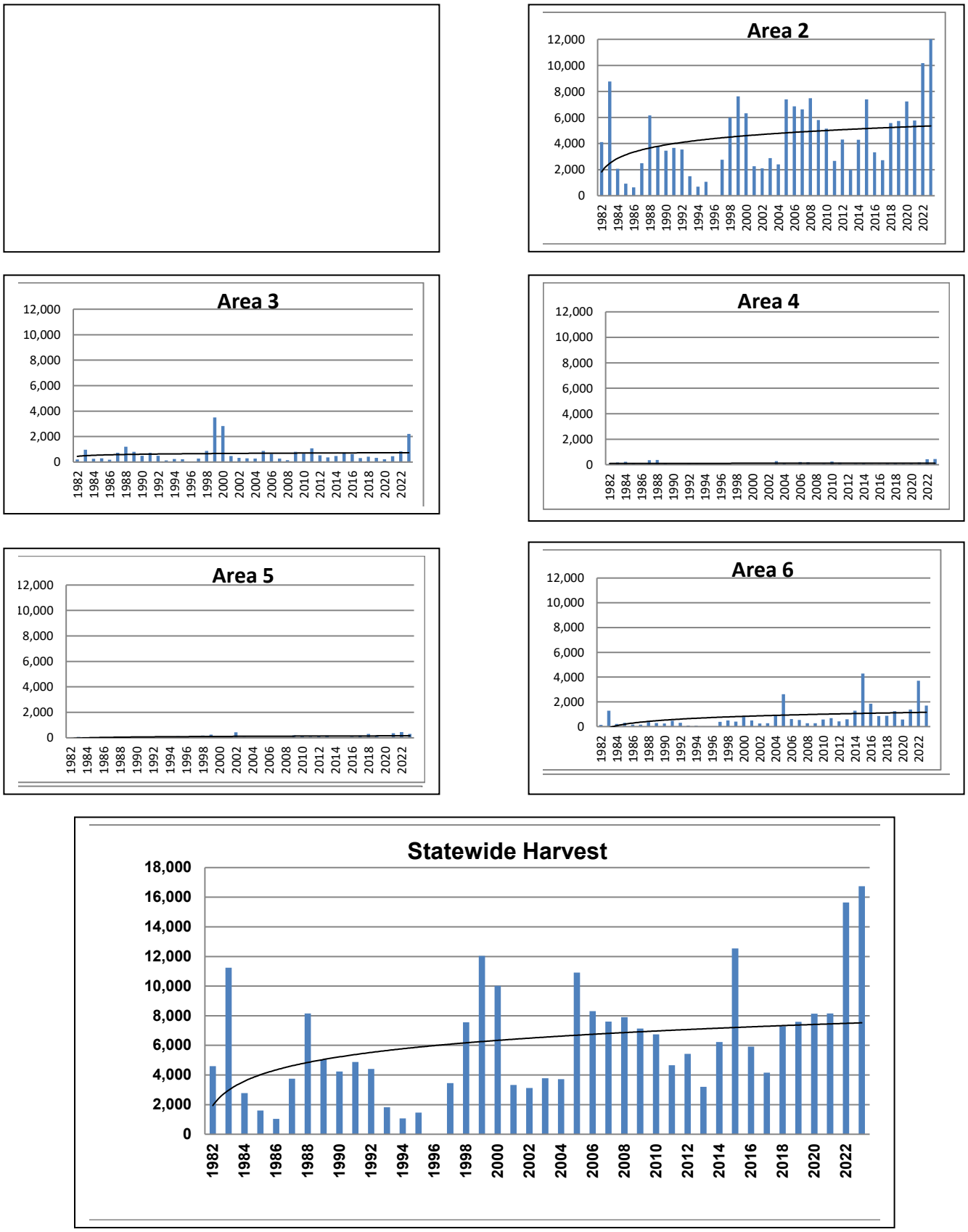


Figure 3. Chukar harvest in each management area and statewide.

Table 3. Chukar harvest rate (Chukars per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	1.8	0.8	0.5	0.3	1.5	0.9	0.8
1983		1.2	1.3	0.7	1.5	1.2	1.2
1984		0.5	0.8	0.6	0.0	1.0	0.5
1985		0.3	0.7	0.3	0.0	0.8	0.4
1986		0.3	0.6	0.1	1.1	0.7	0.3
1987		0.9	1.1	0.8	0.0	0.6	0.8
1988		1.0	1.1	0.7	0.6	0.6	1.0
1989		1.0	1.0	0.3	0.5	0.3	0.8
1990		0.9	0.5	0.0	1.6	0.7	0.8
1991		1.0	1.3	0.0	0.0	1.3	1.0
1992		0.9	0.9	0.2	0.7	0.7	0.9
1993		0.5	0.3	0.2	1.3	0.3	0.5
1994		0.4	1.2	0.0	1.0	0.3	0.5
1995		0.4	1.0	0.2	2.4	0.3	0.4
1996							
1997		0.9	0.5	0.0	3.0	0.8	0.8
1998		1.0	0.7		2.0	1.1	1.0
1999	0.8	1.0	0.9	1.0	1.3	1.2	1.0
2000		1.0	1.0	0.3	0.7	0.9	1.0
2001		0.2	0.2	0.2	0.2	0.2	0.2
2002		0.8	0.7	0.0	1.6	0.7	0.8
2003		1.1	0.7	0.6	0.6	0.6	0.9
2004		0.8	1.3	0.9	1.9	1.2	0.9
2005		1.3	1.2	0.1	1.8	1.5	1.3
2006		1.3	1.3	0.7	0.0	1.2	1.3
2007		1.3	1.1	0.9	0.0	0.7	1.2
2008		1.3	0.7	0.0	0.0	0.2	1.1
2009		1.1	1.5	0.5	2.7	0.6	1.1
2010	2.1	0.9	0.9	0.5	1.6	0.9	0.9
2011		0.6	0.9	0.5	0.6	0.7	0.6
2012		0.9	0.8	0.2	0.5	0.5	0.8
2013		0.5	1.0	0.5	1.6	0.7	0.6
2014		1.0	0.8	0.7	0.9	1.1	1.0
2015		1.4	0.8	0.8	0.4	1.5	1.3
2016		0.9	0.9	0.2	1.6	1.4	1.0
2017		0.9	0.6	0.9	2.1	1.0	0.9
2018		1.0	0.4	0.3	1.5	0.6	0.8
2019	0.3	0.8	0.5	0.1	1.0	0.7	0.7
2020	2.7	0.9	0.6	0.6	0.2	0.4	0.8
2021	0.1	0.5	0.4	0.2	1.9	0.6	0.5
2022	1.5	0.9	0.6	0.5	1.0	0.9	0.9
2023		1.1	1.4	0.5	1.0	0.9	1.1

Figure 4. Chukar harvest rate (Chukars per hunter-day in each management area and statewide).

GRAY (HUNGARIAN) PARTRIDGE

Gray Partridge, popularly called Huns, are an introduced upland bird species from Europe. Just like Chukars, they were released first by private individuals and hunting clubs as early as 1910. The first stocking of Gray Partridge by the state was in Sheridan County in 1923 with cooperation of the local sportsman club. A more systematic stocking of Gray Partridge began in the late 1930's with birds brought here from Oregon. They were released first near Sheridan, and have done well in the Bighorn Basin and the east face of the Bighorn Mountains. There are also scattered small populations in other parts of the state where there is appropriate habitat. Gray Partridge are generally associated with agricultural, mixed grass prairie, or mixed agricultural/prairie habitats. However, in Wyoming they have been able to use the sagebrush steppe habitat also, at least in some areas. Like other gallinaceous birds, Gray Partridge populations can increase quickly in response to favorable conditions, as indicated by harvest and hunter interest.

The Department has altered the hunting seasons and limits several times since 1982 in response to changing conditions. From 1982 to 1987 the daily and possession limit was 3 and 6 respectively, and seasons started in November and ended in December. In 1988, hunting started October 1 and went through December 15, and since then has changed numerous times, beginning as early as September 15, and ending as late as January 31. Since 2007 it has stayed at October 1 to January 31. In 2017 the season started September 15th, and that continued through 2022. In 2023, the season was extended through February, but in 2024 it reverted back to the end of January. The daily and possession limits have been on a slow increase. In 1991 they went to 4 daily and 12 in possession, and in 2001 increased to 5 and 15. In 2000, the limits were combined with Chukar Partridge, but that only lasted one year. As with most gallinaceous birds, there is no evidence regulated hunting has any impact on Gray Partridge populations, which fluctuate predominantly in response to changing weather and habitat conditions. They are also affected by farming practices and land use changes.

The Department compiles Gray Partridge harvest data from the 6 common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Gray Partridge occupy suitable habitat in Areas 1 - 6. The majority of hunter activity (Fig. 2) and harvest (Fig 3) for Gray Partridge is in Area 2 (mountain foothills and Bighorn Basin), and Area 3 (mountain foothills and Powder River Basin). Areas 5 and 6 have small populations, and Areas 1 and 4 have no consistent population.

Harvest rate (Gray Partridge per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is stable (Fig. 4).

At the statewide level, harvest rates fluctuated between 0.3 and 1.2 birds per hunter-day (avg. = 0.7) throughout the period of record (Table 3). The total number of hunters has increased slightly, resulting in a total harvest increase since 1982. Habitat conditions appear to be favorable for Gray Partridge populations in all parts of state. There was a large increase in hunting and harvest of Gray Partridge after the federal government CRP program retired highly erodible croplands in the late 1990's and planted them with a seed mix that temporarily favored upland birds. Harvest rates during this time

were on the high end of the historic rates. Harvest rates don't appear to be affected by the quantity of hunter pressure.

Throughout the period of record, numbers of Gray Partridge hunters has an upward trend, and the total harvest has been increasing (Figure 3) as the harvest rate has remained steady (Figure 4). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of Gray Partridge hunters and total harvest. The 2023 harvest survey had the following results: total hunter numbers (2,731) were above the long-term average (1,344) and the most recent 10-year average (1,568), total harvest (14,160) was higher than the long-term average (4,005) and the 10-year average (5,479), and harvest rate (0.8) was above the long-term average (0.7) and 10-year average (0.6). Analysis of each management area shows that Areas 1 and 4 have a stable trend in hunter numbers, and Areas2, 3, 5 and 6 have upward trends. For total harvest, Areas 2, 3, 5 and 6 have an upward trend, while Areas 1 and 4 are stable. For harvest rate, Areas 2 and 6 are stable, Area 3 has a slightly decreasing trend, and there are upward trends in Areas 1, 4 and 5.

Table 1. Gray Partridge hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	8	544	271	8	10	20	861
1983	71	1478	402	0	39	150	2,140
1984	14	474	115	9	17	53	682
1985	0	330	123	0	24	78	555
1986	0	207	85	9	0	51	352
1987	23	703	472	0	60	92	1,350
1988	0	955	693	37	85	146	1,916
1989	12	377	543	5	12	42	991
1990	6	405	449	6	0	34	900
1991	0	378	340	13	0	18	749
1992	0	753	283	58	23	92	1,209
1993	21	517	224	0	12	95	869
1994	6	215	166	12	11	61	471
1995	0	317	214	0	6	54	591
1996	No Data						
1997	0	442	422	0	21	112	997
1998	0	919	570	6	6	151	1,652
1999	113	1440	1797	126	205	240	3,921
2000	47	1335	1859	12	245	282	3,780
2001	0	717	780	24	118	206	1,845
2002	14	417	397	14	86	112	1,040
2003	19	267	226	0	90	48	650
2004	7	338	389	53	124	82	993
2005	0	877	467	10	233	162	1,749
2006	5	388	342	10	107	73	925
2007	0	294	229	12	27	47	609
2008	0	486	331	0	34	37	888
2009	24	668	431	12	31	114	1,280
2010	29	611	640	9	80	144	1,513
2011	16	550	653	9	96	159	1,483
2012	10	665	587	27	63	132	1,484
2013	5	469	296	20	78	114	982
2014	13	457	298	2	56	117	943
2015	56	694	582	12	91	173	1,608
2016	30	481	462	14	32	95	1,114
2017	22	344	255	25	52	73	771
2018	32	624	410	46	64	127	1,200
2019	18	651	631	60	91	257	1,592
2020	14	656	282	7	27	285	1203
2021	63	984	657	8	64	287	1,919
2022	55	1190	676	60	206	609	2,599
2023	244	1305	802	49	342	292	2,731

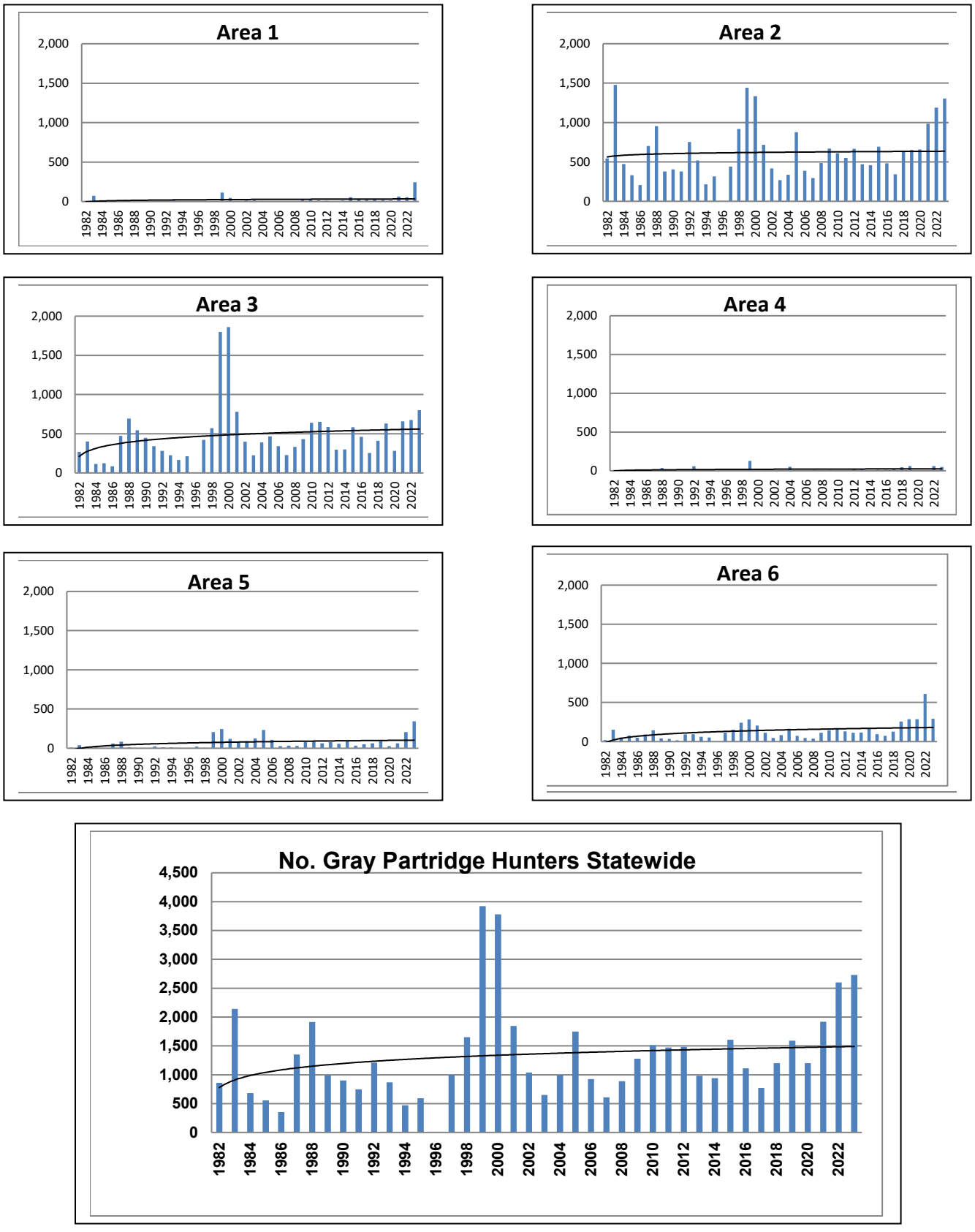


Figure 2. Gray Partridge hunters in each management area and statewide.

Table 2. Gray Partridge harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	25	968	536	0	10	10	1,549
1983	226	3629	789	0	39	420	5,103
1984	36	678	129	9	26	99	977
1985	0	465	103	0	40	159	767
1986	0	290	208	0	0	63	561
1987	47	1748	1260	0	44	156	3,255
1988	0	2417	2619	61	136	175	5,408
1989	6	791	1621	0	5	36	2,459
1990	13	588	964	0	0	23	1,588
1991	0	758	903	13	0	70	1,744
1992	0	2537	673	134	23	227	3,594
1993	17	507	276	0	6	38	844
1994	0	126	231	0	0	22	379
1995	0	540	525	0	0	44	1,109
1996	No Data						
1997	0	1206	1021	0	70	275	2,572
1998	0	3747	2008	0	19	610	6,384
1999	166	7086	8198	96	703	1077	17,326
2000	214	5483	9016	18	514	909	16,154
2001	0	1363	1175	5	274	214	3,031
2002	47	431	508	7	265	143	1,401
2003	4	641	432	0	426	51	1,554
2004	7	543	1433	97	238	289	2,607
2005	0	1216	833	6	812	655	3,522
2006	27	560	576	8	238	173	1,582
2007	0	354	441	41	11	72	919
2008	0	638	601	0	53	90	1,382
2009	11	1621	1095	0	10	121	2,858
2010	32	2115	2354	7	245	492	5,245
2011	0	2306	3078	18	272	345	6,019
2012	0	2349	2677	70	192	491	5,779
2013	5	771	379	27	257	302	1,741
2014	9	1310	697	4	206	235	2,461
2015	192	2647	1992	196	240	907	6,174
2016	122	1344	1334	10	60	694	3,564
2017	0	697	461	19	143	100	1,420
2018	97	1534	590	23	117	473	2,835
2019	9	1900	2007	12	369	255	4,552
2020	26	3555	1703	0	117	855	6,256
2021	67	2385	1113	0	49	516	4,130
2022	72	5364	1978	119	133	1575	9,241
2023	778	7511	3263	165	1373	1070	14,160

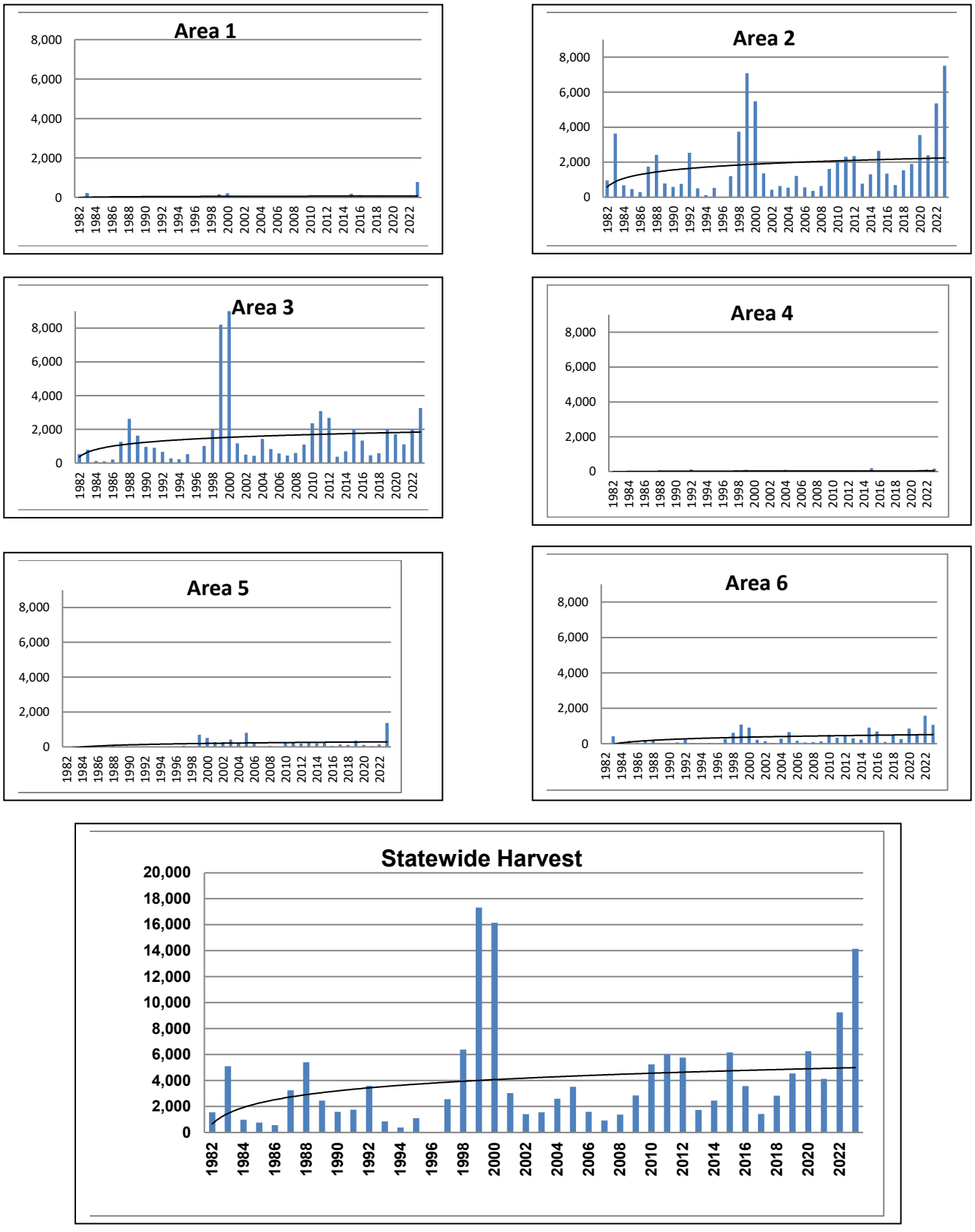


Figure 3. Gray Partridge harvest in each management area and statewide.

Table 3. Gray Partridge harvest rate (Gray Partridge per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	0.8	0.5	0.7	0.0	1.0	0.3	0.5
1983	1.5	0.9	0.8		0.4	1.6	1.1
1984	0.6	0.4	0.2	1.0	1.5	1.0	0.8
1985	0.0	0.4	0.2		1.3	0.9	0.5
1986	0.0	0.5	0.7	0.0		0.6	0.4
1987	1.5	0.9	0.9		0.3	1.0	0.9
1988	0.0	1.0	1.3	0.4	1.2	0.7	0.8
1989	0.3	0.6	1.0	0.0	0.3	0.5	0.4
1990	0.5	0.5	0.6	0.0		0.1	0.4
1991	0.0	0.7	0.8	0.3		0.3	0.4
1992	0.0	0.9	0.9	0.5	0.7	0.9	0.6
1993	0.2	0.3	0.3		0.5	0.2	0.3
1994	0.0	0.2	0.5	0.0	0.0	0.2	0.1
1995	0.0	0.6	0.4		0.0	0.6	0.3
1996	No Data						
1997	0.0	0.9	0.7		1.1	0.6	0.7
1998	0.0	1.1	0.7	0.0	0.5	1.0	0.6
1999	0.4	1.2	1.0	0.2	1.0	1.2	0.8
2000	2.2	1.2	1.2	0.2	0.8	1.2	1.1
2001	0.0	0.5	0.4	0.1	0.7	0.4	0.4
2002	1.4	0.3	0.3	0.5	1.1	0.4	0.7
2003	0.1	0.8	0.4		1.5	0.5	0.7
2004	1.0	0.5	0.9	0.6	0.9	1.1	0.8
2005	0.0	0.5	0.5	0.5	1.5	1.1	0.7
2006	1.7	0.4	0.4	0.4	1.2	1.2	0.9
2007	0.0	0.4	0.4	0.4	0.1	0.7	0.3
2008	0.0	0.5	0.5		0.6	0.5	0.4
2009	0.1	0.6	0.6	0.0	0.2	0.7	0.3
2010	0.6	0.6	0.7	0.8	1.2	1.1	0.8
2011	0.0	0.8	0.7	2.0	1.2	0.6	0.9
2012	0.0	0.8	0.7	1.9	0.6	1.0	0.8
2013	1.0	0.3	0.3	1.4	0.9	0.5	0.4
2014	0.3	0.9	0.6	0.3	1.7	1.1	0.8
2015	1.1	0.9	0.7	3.8	1.0	1.1	0.9
2016	3.5	0.7	0.5	0.1	0.4	1.5	0.7
2017	0.0	0.5	0.5	0.2	0.9	0.8	0.5
2018	2.3	0.6	0.4	0.2	0.7	0.9	0.6
2019	0.1	0.5	0.5	0.1	1.2	0.3	0.5
2020	0.6	0.7	1.0	0.0	0.7	0.7	0.8
2021	0.2	0.3	0.3	0.0	0.4	0.5	0.3
2022	0.2	0.8	0.5	0.1	0.2	0.7	0.6
2023	0.4	0.9	0.7	0.6	1.1	0.8	0.8

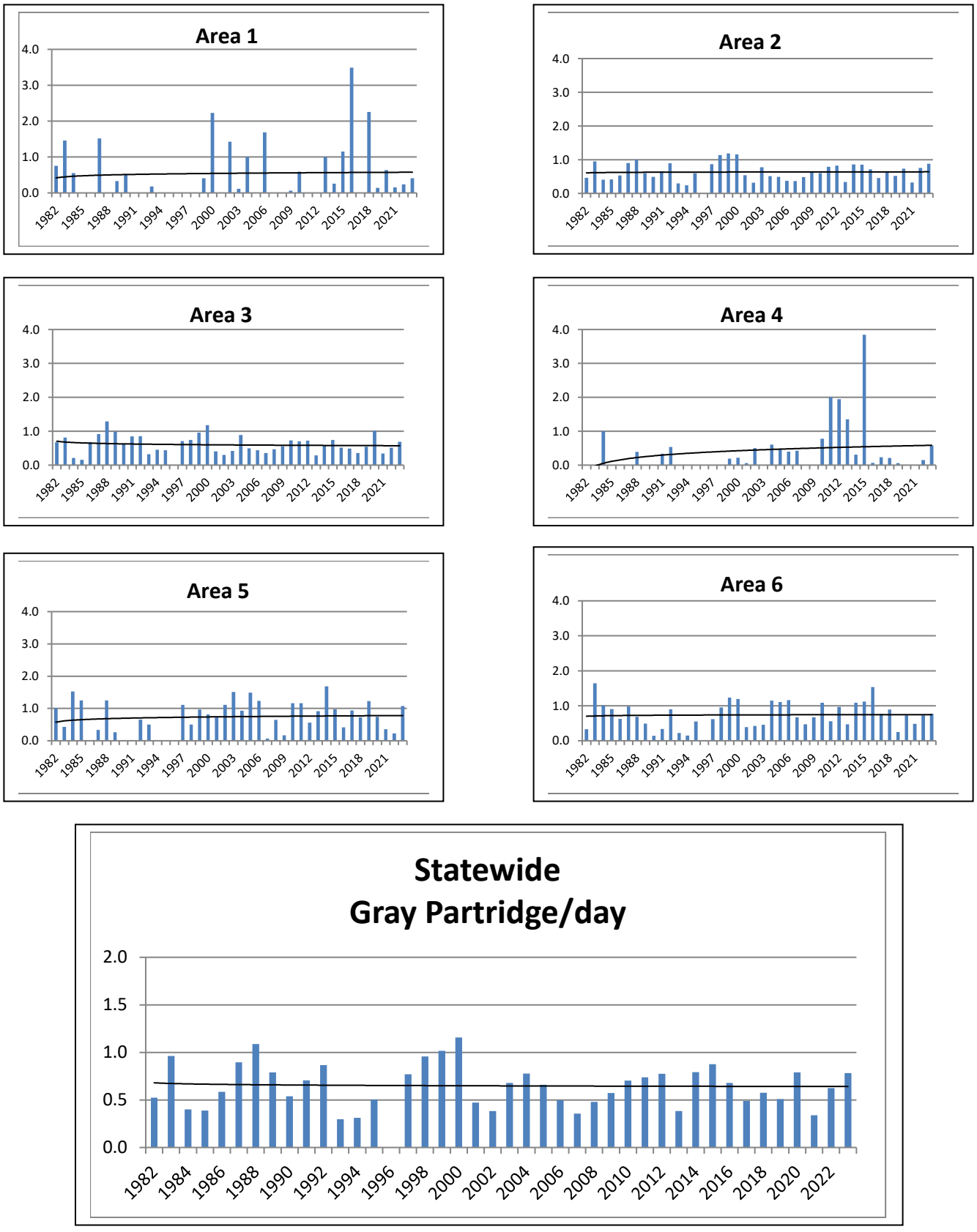


Figure 4. Gray Partridge harvest rate (Gray Partridge per hunter-day in each management area and statewide).

RING-NECKED PHEASANT

Ring-necked pheasants are an introduced upland bird species originally from Eurasia. The first time planting of pheasants was mentioned was in the annual report of 1921-22, with no details of from where they were obtained or where released. Another mention was made in 1924 of birds that were released near Lovell and Riverton by the local sportsman clubs. Pheasants were acquired from Oregon and Montana in 1936, and the department released these in 1937. They inhabit agricultural and riparian areas with associated weedy places. Pheasants have been introduced into many parts of the state, and there are small wild populations scattered where there is appropriate habitat, but much of the opportunity to hunt pheasant comes via pen-reared birds from the two department bird farms near Yoder and Sheridan, and to a much smaller degree some private bird farms. Like other gallinaceous birds, pheasant populations can increase quickly in response to favorable conditions. Interest in pheasant hunting remains quite consistent because of the augmentation of wild populations by released birds.

The first bird farm was built near Big Horn in 1938, raising both chukars and pheasants. By 1940 it was raising more than 10,000 birds a year. For a number of years, this bird farm also supplied eggs and chicks to two "field stations" located near Powell and Yoder, which used setting hens and field coop methods to raise birds. In 1960, the Sheridan farm released 13,980 pheasants (along with over 4,000 chukars), the Powell station raised 1,975 and the Yoder station raised 1,275 pheasants. The Downar Bird Farm near Yoder began operations in 1964, and shortly thereafter the annual pheasant production capacity for the state was more than 24,000 birds. Numbers of pheasants produced each year can vary depending on several different factors. An extreme example is 2011, when pheasants at the Downar farm contracted avian chlamydia and all birds had to be destroyed. The department purchased 10,000 birds from a farm in Wisconsin to partly make up for that loss.

Hunting seasons for pheasant have traditionally taken place in November and some into December. The Springer Special Permit Pheasant (see description below) Season takes place in October and early November. Pheasants are stocked for hunters on department, state or Bureau of Reclamation lands that have sufficient cover to hold the birds when released, and more recently Walk-In Access areas. Both sexes are often allowed to be harvested in places where pheasants are released from the bird farms; otherwise, harvest is usually restricted to males only.

As with most gallinaceous birds, there is no evidence regulated hunting has any impact on pheasant populations, which fluctuate predominantly in response to changing weather and habitat conditions. They are also affected by farming practices and land use changes. The long-term changes in harvest can be seen in Figure 1.

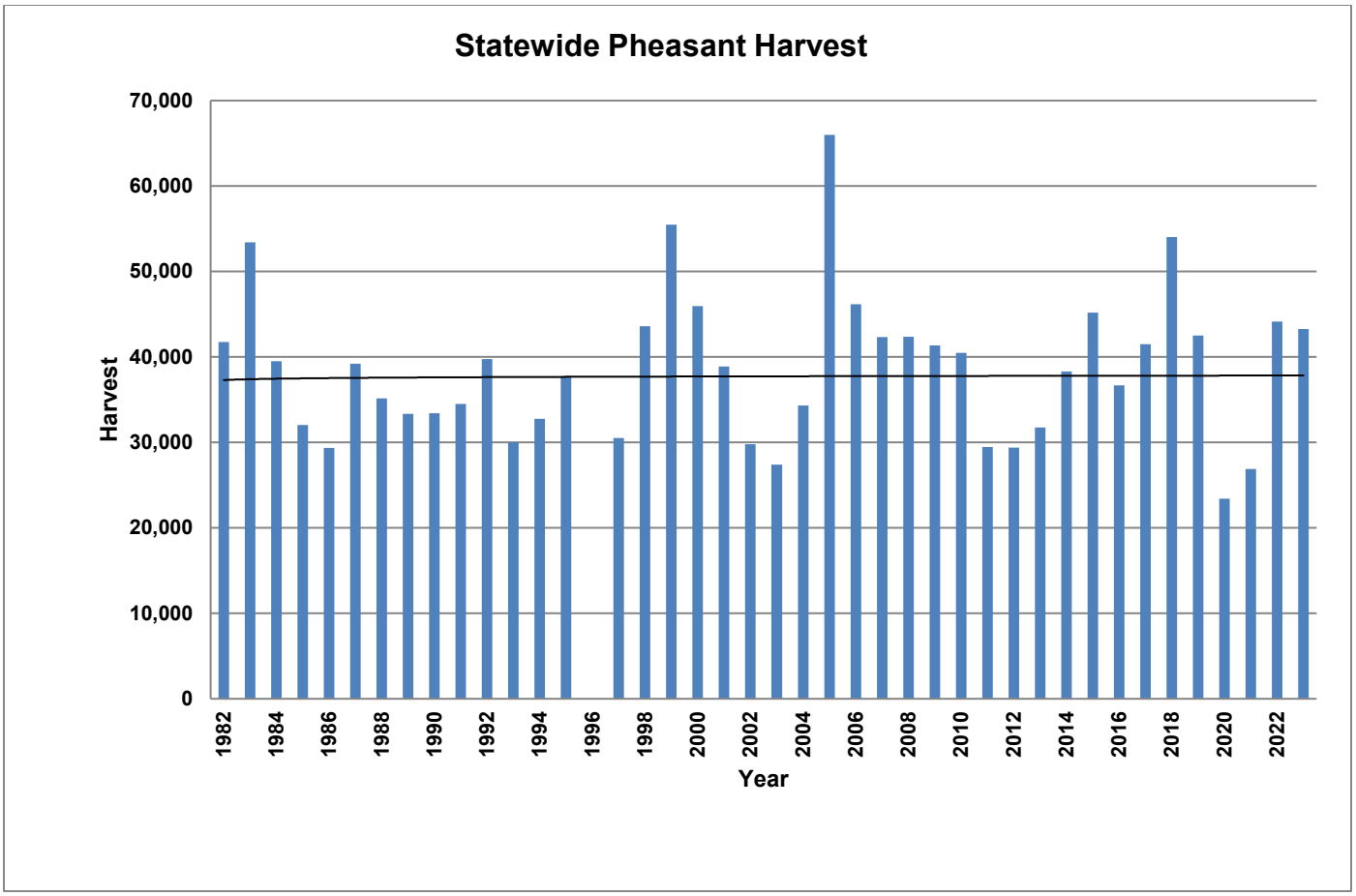


Figure 2. Statewide Pheasant Harvest, 1982 - Present.

The Department compiles pheasant harvest data different from other upland and small game species. Because pheasants are stocked for hunting, and at different rates depending on the area, they are reported based on hunt area (Fig. 6). This change from upland bird management areas to pheasant hunt areas reporting was initiated in 2014, and in 2015 an additional change was made for reporting in hunt area 8 (Springer Special) to include permitted and walk-on hunters during the special season, and the 2-week period after where hunters are allowed an opportunity to hunt the leftover birds. The majority of hunter activity (Fig. 3) and harvest (Fig 4) for pheasants is in southeast Wyoming (hunt areas 7-9), and the northwest part of the state (hunt areas 1, 2, and 5). The 2013 JCR for upland game has the pheasant reporting based on upland bird management areas.

Harvest rate (pheasants per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is stable because of the large numbers of pen-raised birds (Fig. 5).

At the statewide level, harvest rates fluctuated between 0.9 and 1.2 birds per hunter-day (avg. = 1.1) throughout the period of record (Table 3). The total number of hunters has increased, but the harvest rate hardly changes because of the consistent supply of birds from bird farms. Hunting statistics do show spikes in activity when habitat conditions are favorable for wild populations to increase. Harvest rates do not appear to be affected by the quantity of hunter pressure.

Throughout the period of record, numbers of pheasant hunters has an downward trend (Figure 2) as the harvest rate has decreased slightly (Figure 4). A weak cyclical pattern, similar to that described above, is also noted in annual numbers of pheasant hunters and total harvest. The 2023 harvest survey had the following results: total hunter numbers (9,279) were lower than the long-term average (10,553), total harvest (43,282) was higher than the long-term average (40,283), and harvest rate (1.1) equaled the long-term average (1.1). An analysis of each hunt area shows that there are only slight trends both up and down for hunters and harvest. The overall increases in statewide numbers may be the result of problems with the survey questions noted under each of the tables related to the two weeks of cleanup hunting in area 8 after the Springer Special hunt.

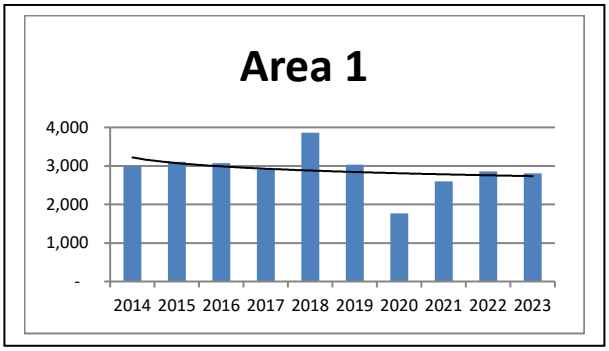
Springer Special Permit Pheasant Season. In 1973, a special hunt was initiated on department-owned lands around and near the Downar Bird Farm in Goshen County. The intent was to provide maximum opportunity for pheasant hunting in a controlled situation to avoid overcrowding on public land. The hunt continues to the present and is very popular with upland bird hunters.

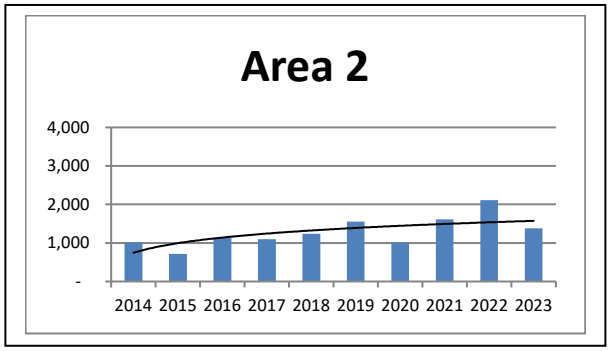
Dates for the hunt are variable, but now extend for about three weeks. The season in 2023 went from October 11 through October 31. Hunters that wish to participate apply for permits before the season, although those without permits can also hunt by replacing permitted hunters as they finish for the day. This is called “stand-by” or “walk-on” hunting. Hunters have to check in and out of the unit and can only hunt between the hours of 8:00 am and 4:00 pm. Initially a maximum of 100 hunters were allowed to be on the unit at a time (since raised to 120 when additional places to hunt were added). Two days each season are reserved for youth hunters. Birds are released each evening for the next day’s hunt, with enough birds released to fill the limit for all permitted hunters. The season limit for this hunt was three pheasant of either sex, but in 2022 was raised to nine. The season limit can be reached over any number of days of hunting. This hunt occurs before the regular pheasant season dates for the remainder of the state. The Special Permit hunt ends the day before the regular season, and then opens to any hunters for a period of time to clean up the released birds. The Springer unit closes to pheasant hunting for waterfowl considerations in mid-November.

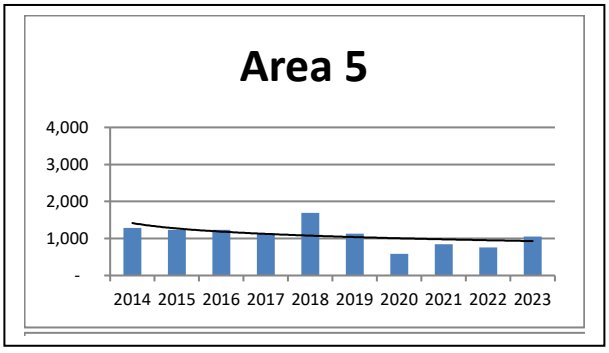
Table 1. Pheasant hunters in each hunt area and statewide.

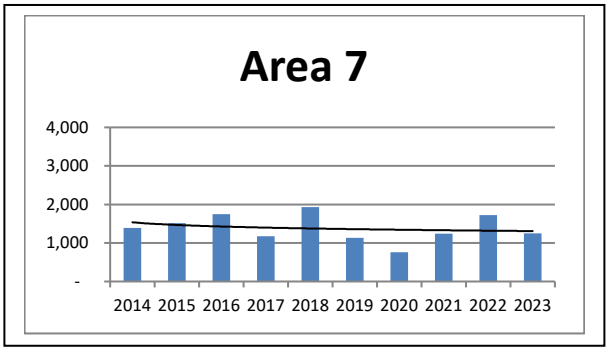
Year	Area 1	Area 2	Area 5	Area 7	Area 8	Area 8 Post Springer Special	Area 8 Springer Special Permitted	Area 8 Springer Special Walk-on	Area 9	Area 11	Statewide
2014	2,997	1,016	1,285	1,387	1,677				1,028	881	10,271
2015	3,104	712	1,236	1,518	NA	3,280	989	701	904	775	13,219
2016	3,070	1,140	1,237	1,748	NA	1,602	1,011	763	849	924	12,344
2017	2,912	1,098	1,151	1,171	NA	2,837*	852	647	828	812	12,308
2018	3,862	1,243	1,687	1,931	NA	1,937	1,030	826	1,103	1,102	11,849
2019	3,034	1,557	1,133	1,133	NA	764	846	699	711	615	9,181
2020	1,769	1,019	583	760	NA	366	965	1,174	447	225	6,593
2021	2,596	1,611	848	1,239	NA	653	1,019	1,399	879	314	9,461
2022	2,858	2,113	760	1,725	NA	749	1,084	1,231	1,251	714	11,021
2023	2,810	1,379	1,054	1,253	NA	1,249	1,054	827	1,009	306	9,279

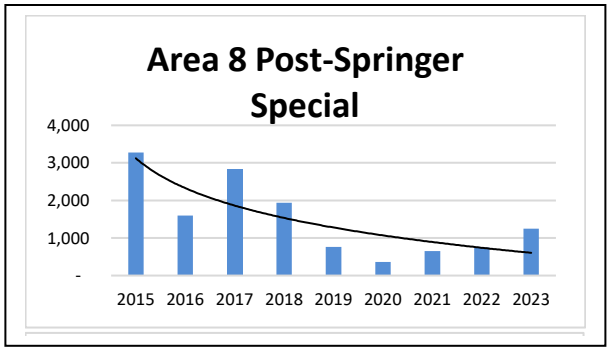
*Accuracy of these estimates may be low as potential faults in the data collection questions were found.

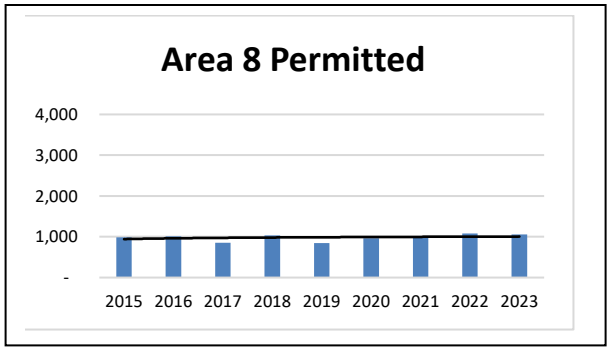


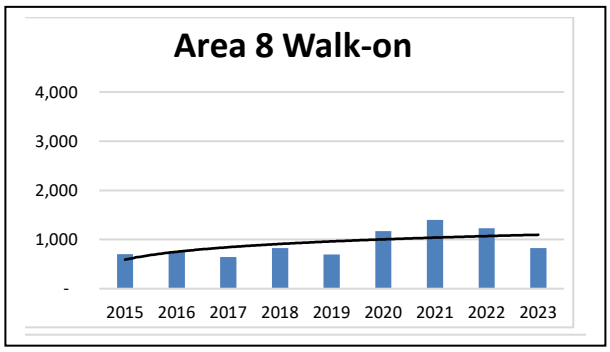


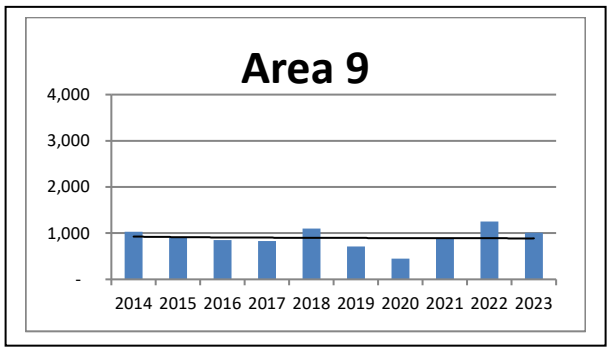


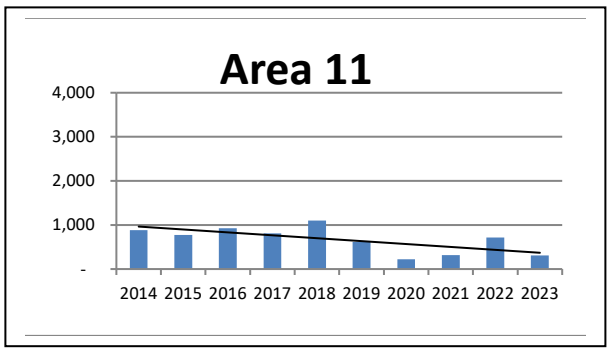












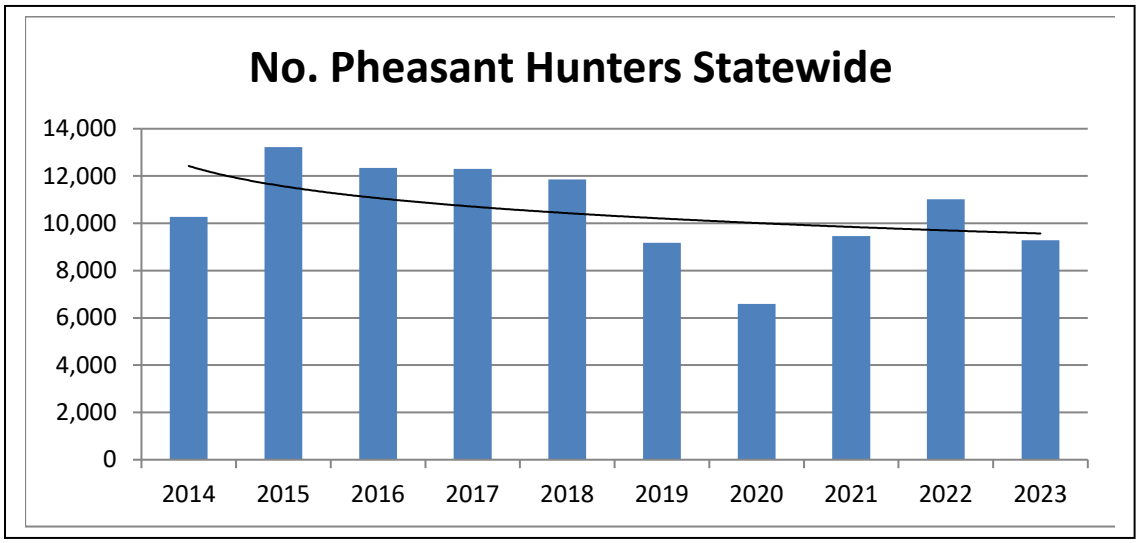
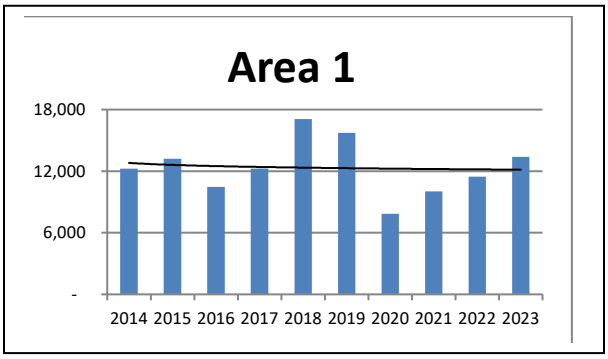


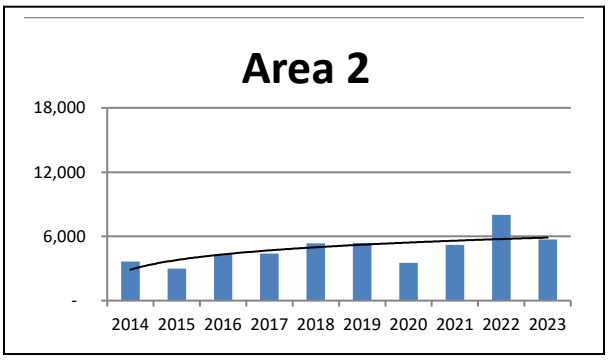
Figure 3. Pheasant hunters in each hunt area and statewide.

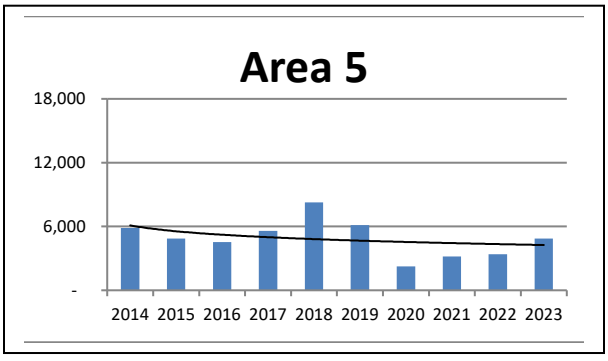
Table 2. Pheasant harvest in each hunt area and statewide.

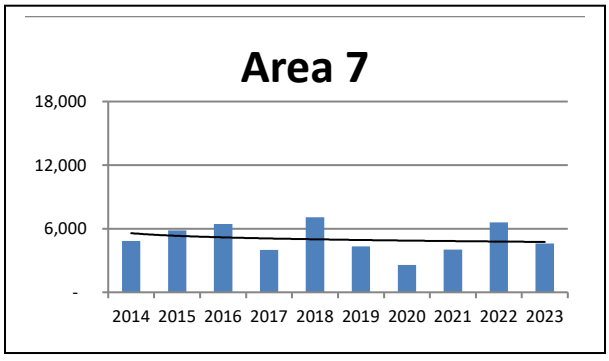
Year	Area 1	Area 2	Area 5	Area 7	Area 8	Area 8 Post Springer Special	Area 8 Springer Special Permitted	Area 8 Springer Special Walk-on	Area 9	Area 11	Statewide
2014	12,251	3,640	5,867	4,840	5,509				1,028	881	38,322
2015	13,212	2,996	4,863	5,838	NA	7,726	989	701	904	775	45,203
2016	10,461	4,313	5,450	6,455	NA	1,602	1,011	763	849	924	36,684
2017	12,238	4,382	5,575	4,006	NA	7,081*	1,811	1,034	2,414	2,937	41,478
2018	17,092	5,366	8,266	7,077	NA	6,109	1,983	1,187	4,057	2,878	54,015
2019	15,742	5,381	6,128	4,343	NA	3,128	1,627	1,096	2,652	2,414	42,511
2020	7,862	3,537	2,257	2,581	NA	920	2,040	1,907	1,789	519	23,412
2021	10,030	5,216	3,170	4,022	NA	3,138	1,851	1,949	3,418	1,002	33,796
2022	11,453	8,006	3,398	6,585	NA	2,991	2,049	1,811	5,253	2,579	44,125
2023	13,402	5,711	4,870	4,606	NA	4,423	1,959	2,072	4,802	1,437	43,282

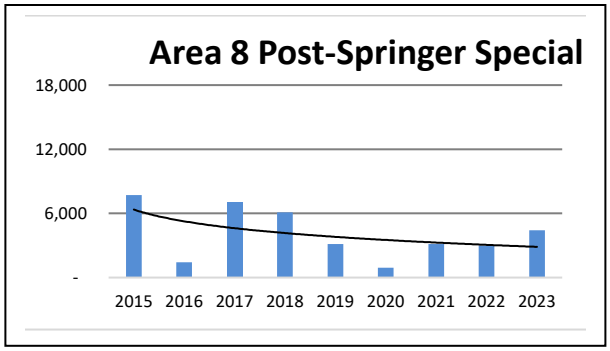
*Accuracy of these estimates may be low as potential faults in the data collection questions were found.

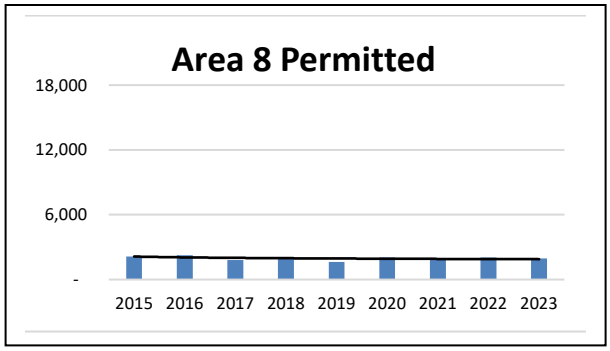


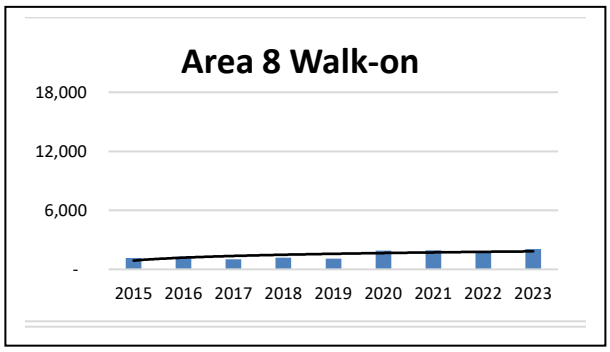


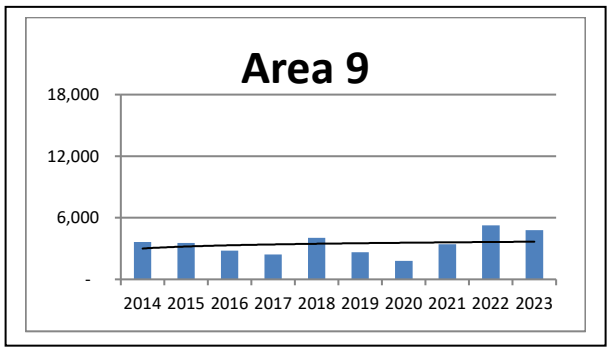


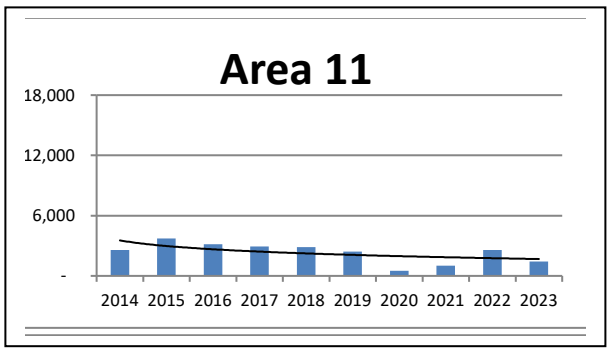












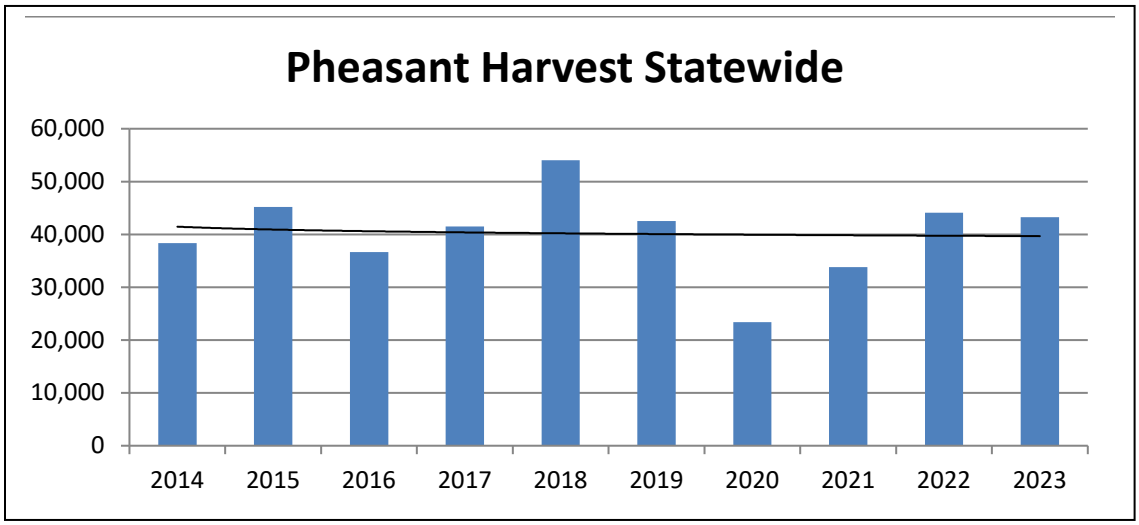
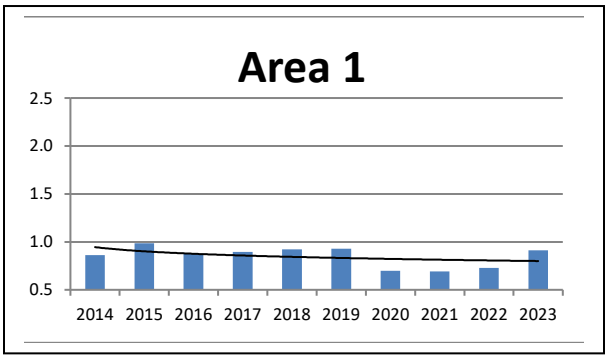


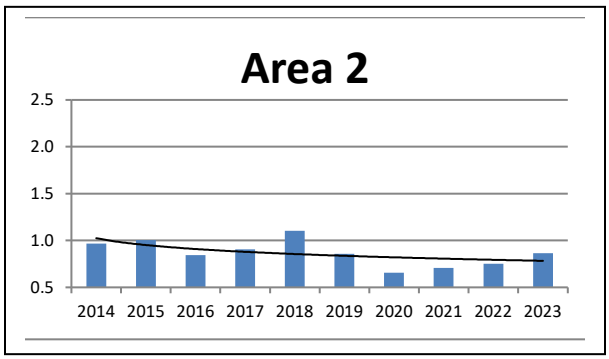
Figure 4. Pheasant harvest in each management area and statewide.

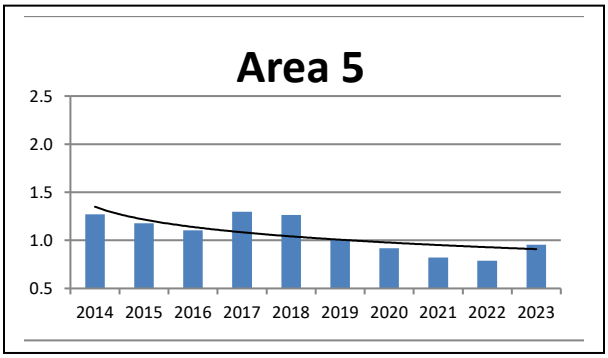
Table 3. Pheasant harvest rate (pheasants per hunter-day) in each management area and statewide.

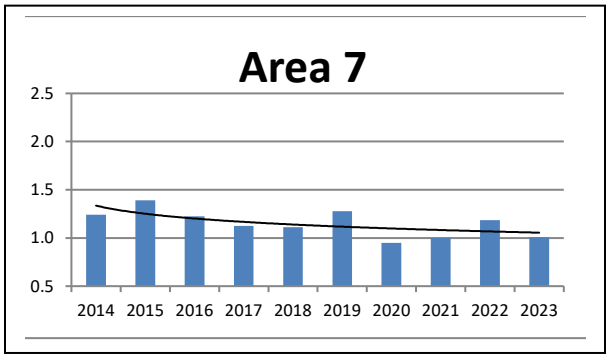
Year	Area 1	Area 2	Area 5	Area 7	Area 8	Area 8 Post Springer Special	Area 8 Springer Special Permitted	Area 8 Springer Special Walk-on	Area 9	Area 11	Statewide
2014	0.9	1.0	1.3	1.2	1.9				1.7	1.3	1.1
2015	1.0	1.0	1.2	1.4	NA	1.3	2.2	1.6	1.6	1.8	1.2
2016	0.9	0.8	1.1	1.2	NA	1.5	2.2	1.7	1.5	0.9	1.1
2017	0.9	0.9	1.3	1.1	NA	1.5*	2.1	1.6	1.5	1.2	1.1
2018	0.9	1.1	1.3	1.1	NA	1.8	1.9	1.4	1.5	0.9	1.1
2019	0.9	0.9	1.0	1.3	NA	1.5	1.9	1.6	1.5	1.5	1.1
2020	0.7	0.7	0.9	0.9	NA	1.4	2.1	1.6	1.1	1.1	0.9
2021	0.7	0.7	0.8	1.0	NA	1.4	1.8	1.4	1.2	1.1	0.9
2022	0.7	0.8	0.8	1.2	NA	1.6	1.9	1.5	1.3	1.3	0.9
2023	0.9	0.9	1.0	1.0	NA	1.7	1.9	1.6	1.5	1.3	1.1

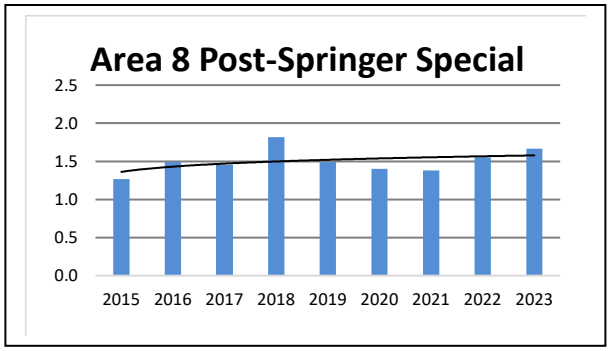
* Accuracy of these estimates may be low as potential faults in the data collection questions were found.

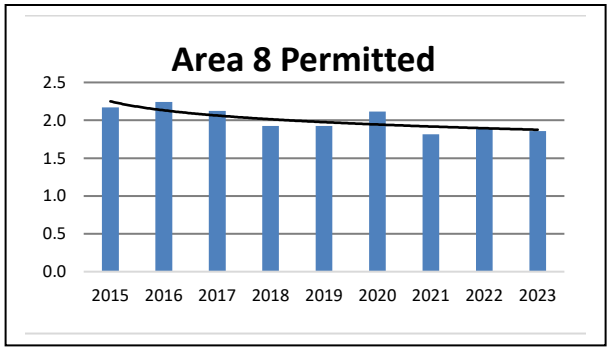


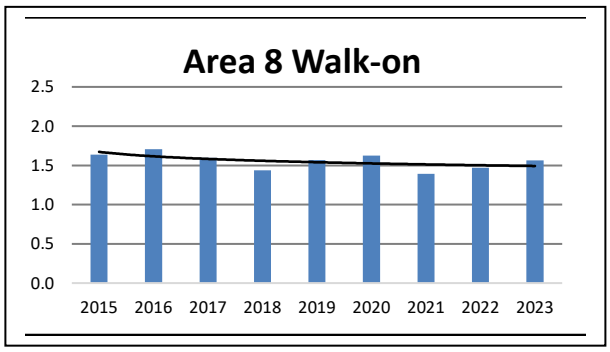


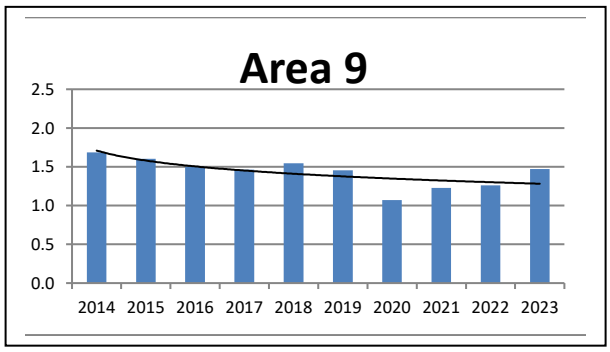


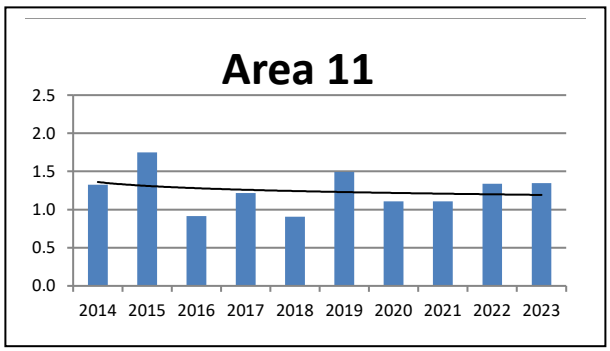












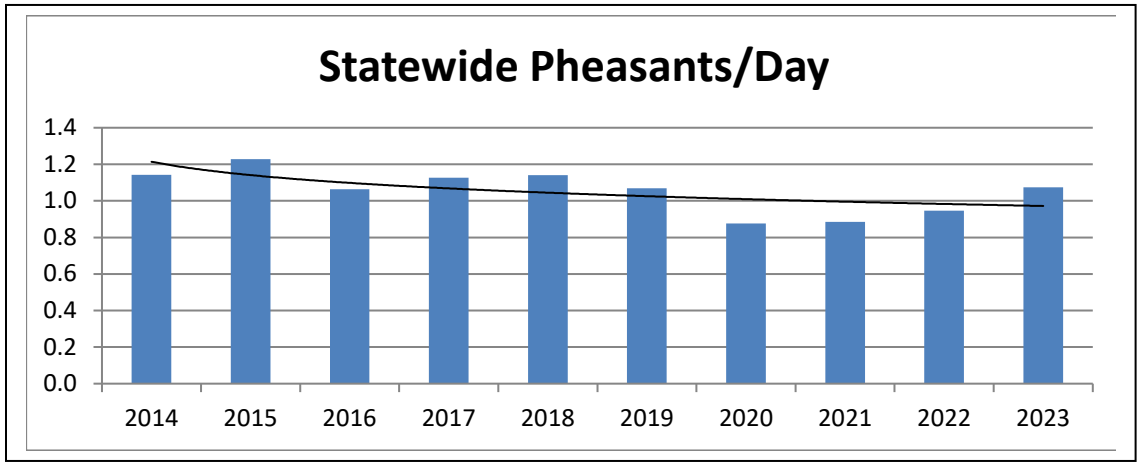


Figure 5. Pheasant harvest rate (pheasants per hunter-day in each hunt area and statewide).

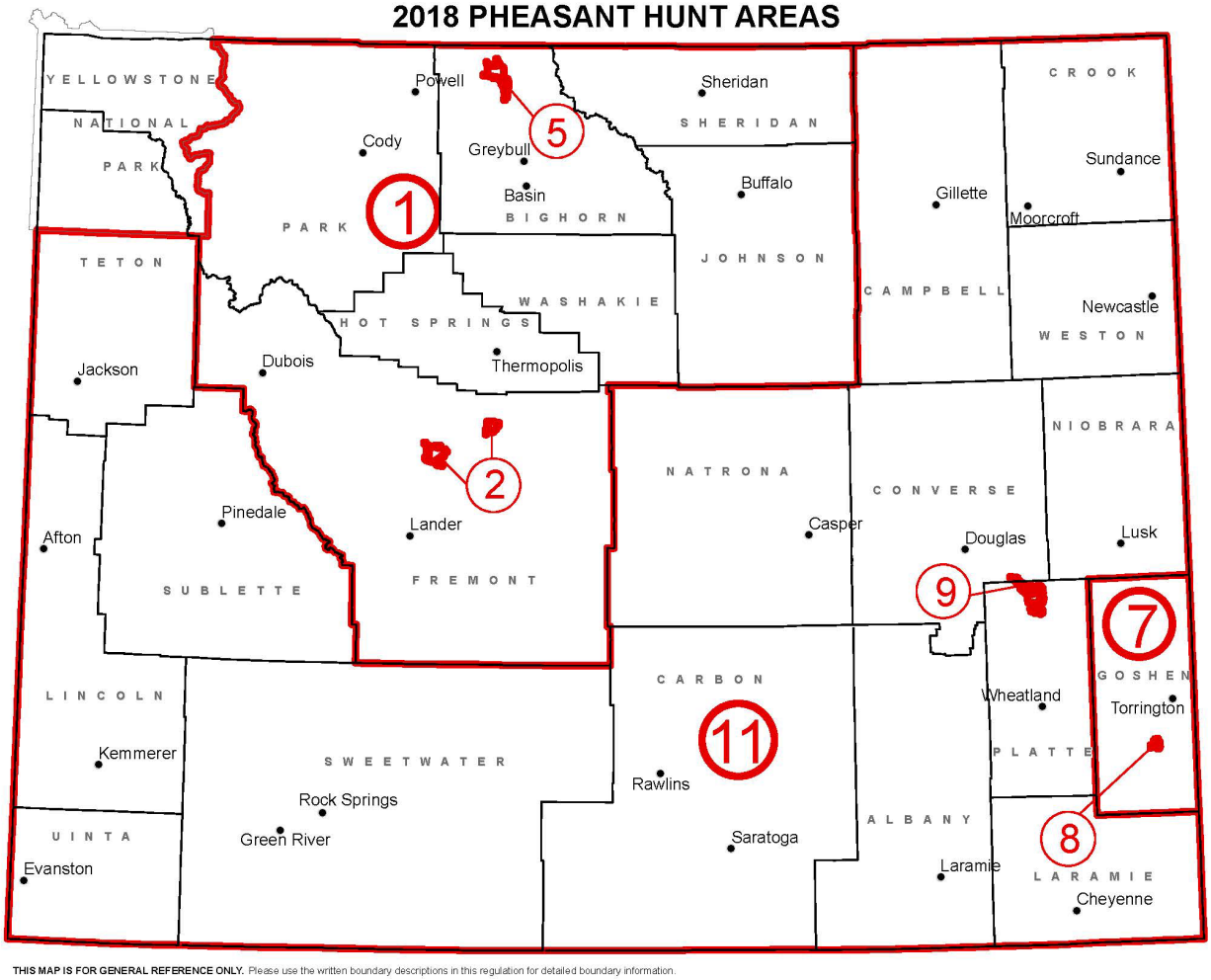


Figure 6. Pheasant hunt areas.

MOURNING DOVE

Mourning Doves are migratory game birds. On a national level, Mourning Doves are the most hunted bird, but in Wyoming the harvest numbers for Pheasants, ducks and geese can exceed the number of doves taken. The harvest for doves in many years depends on the timing of their fall migration. Early cold weather fronts can force many doves to leave Wyoming early in the hunting season or even before the season begins. Mourning Doves use a variety of habitats for nesting and foraging, but they are often associated with human-altered habitats, both urban and rural. The planting of trees and the creation of water sources has helped doves expand into areas where they were probably rare or not present before. Hunting for them is most successful near agricultural areas with small grain crops or fallow fields. A source of water is also a great attractant.

There have been few changes to the hunting seasons for Mourning Doves since 1982. Hunting begins each year on September 1, and the daily bag limit is 15. The hunting season originally ended on Oct. 15, was moved back to Oct. 30 in 1998), changed to Nov. 9 in 2010, and extended to the end of November in 2016. The possession limit has been 30 birds since 1982, until it was increased to 45 in 2014. Dove numbers fluctuate based on several factors, including nesting success, migration timing and weather. Doves in the northern states usually only nest two to three times a season, and the fixed clutch size of two reduces the reproductive potential of each pair.

The Department compiles Mourning Dove harvest data from the six common management areas defined for small game, upland game birds, and furbearers (Fig 1 in JCR Introduction). Doves occupy suitable habitat in all areas. The majority of dove hunter activity (Fig. 2) and harvest (Fig 3) is in Area 5 (Goshen Hole), with lesser amounts of hunting in Area 3 (Powder River Basin) and Area 2 (Bighorn Basin).

Harvest rate (doves per hunter-day) is our most reliable indicator of population trends. There is some indication of cyclical populations in each of the management areas and even statewide, however, the general trend is upward (Fig. 4). The USFWS also produces reports on the status of mourning doves determined by call-count survey routes and band returns from hunter-killed birds. These reports can be found at - https://www. https://www.fws.gov/media/mourning-dove-population-status-2024

At the statewide level, harvest rates fluctuated between 2.4 and 4.9 birds per hunter-day (avg. = 3.6) throughout the period of record (Table 3). The total number of hunters and harvest has steadily decreased, but there was a slightly positive harvest rate until a recent, sustained 6-year slump. Harvest rates do not appear to be affected by the quantity of hunter pressure.

Throughout the period of record, the numbers of dove hunters, harvest and harvest rate have decreased. A weak cyclical pattern, similar to that described above, is also noted in annual numbers of dove hunters and total harvests. The 2023 harvest survey had the following results: total hunter numbers (2,502) were below the long-term average (2,985) but higher than the most recent 10-year average (2,198), total harvest (26,752) remained below the long-term average (33,319) but was higher than the 10-year average of (23,639), and harvest rate (3.1) remained below the long-term average (3.6) and the 10-year average (3.3). A comparison of the management areas shows that all areas have

downward trends in hunter numbers and harvest. For harvest rates, areas 1-4 have downward trends, and areas 5 and 6 have no discernable trend.

An annual report on the Central Management Unit of Mourning Doves is included in the Migratory Game Bird JCR produced by the departments' Migratory Game Bird Biologist (currently Courtney Rudd). The URL (https:// https://wgfd.wyo.gov/hunting-trapping/job-completion-reports) provides access to the latest reports available on the Department website.

Table 1. Mourning Dove hunters in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	72	1112	1442	784	2022	784	6,216
1983	89	1282	1326	833	2270	1147	6,947
1984	23	1014	1124	1184	1918	712	5,975
1985	95	900	859	884	2130	644	5,512
1986	74	818	1017	841	1686	520	4,956
1987	84	703	891	681	1435	574	4,368
1988	44	653	757	473	1742	472	4,141
1989	32	637	682	541	1345	453	3,690
1990	33	530	627	357	1319	314	3,180
1991	59	686	674	400	1337	413	3,569
1992	18	518	423	301	1115	284	2,659
1993	43	474	448	420	964	397	2,746
1994	74	402	513	298	971	409	2,667
1995	51	449	420	276	1003	281	2,480
1996	No Data						
1997	268	365	336	295	895	365	2,524
1998	25	454	434	201	1065	330	2,509
1999	37	378	556	200	940	307	2,418
2000	6	367	450	260	1222	289	2,594
2001	18	525	449	268	1182	365	2,807
2002	66	527	402	141	978	270	2,384
2003	58	421	212	195	817	217	1,920
2004	21	409	396	224	1116	305	2,471
2005	14	611	427	112	1602	425	3,191
2006	11	425	396	282	1015	332	2,461
2007	36	484	331	213	981	306	2,351
2008	27	373	325	178	1159	252	2,314
2009	51	347	287	138	880	246	1,949
2010	20	456	300	244	1182	326	2,528
2011	15	422	361	227	984	282	2,291
2012	15	378	398	164	1059	249	2,263
2013	24	453	289	217	1013	314	2,310
2014	42	411	333	167	969	313	2,235
2015	44	255	251	233	950	362	2,095
2016	33	256	266	225	1077	398	2,255
2017	20	348	200	127	935	273	1,903
2018	61	364	259	177	1005	324	2,119
2019	21	466	240	212	1029	323	2,239
2020	0	201	90	40	501	201	1,023
2021	12	326	246	154	1003	301	2,042
2022	48	647	453	278	1640	575	3,570
2023	222	478	330	283	926	278	2,502

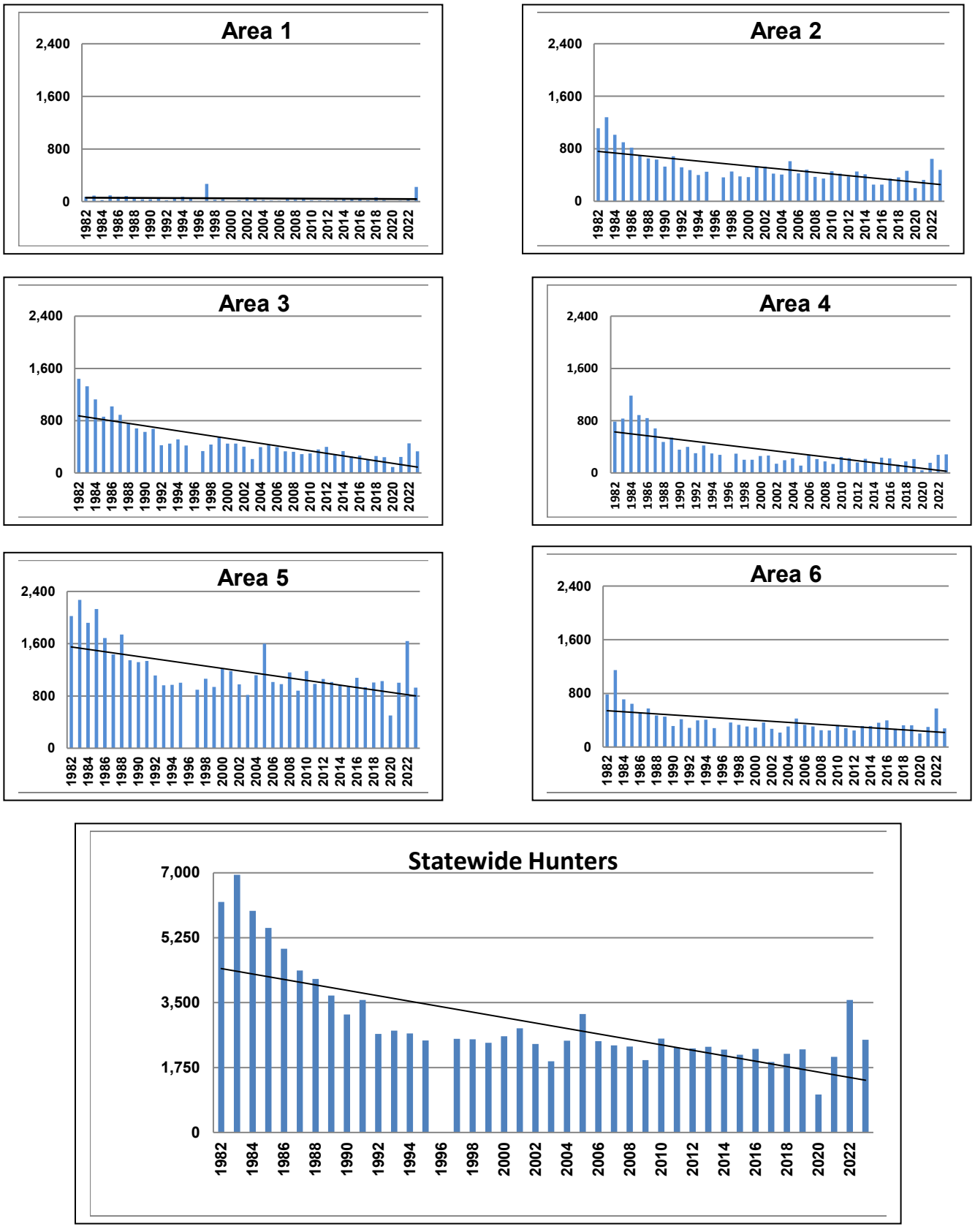


Figure 2. Mourning Dove hunters in each management area and statewide.

Table 2. Mourning Dove harvest in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	552	12938	17660	4189	28945	5452	69,736
1983	683	13807	17111	4030	30985	9846	76,462
1984	67	10828	16001	5872	24713	6294	63,775
1985	404	9137	9501	3557	28468	4480	55,547
1986	995	7543	10582	3786	19062	4873	46,841
1987	273	5900	10342	3748	20754	3576	44,593
1988	88	7279	7168	1274	23701	3138	42,648
1989	534	8019	6608	2325	20532	3913	41,931
1990	76	5854	6224	1907	20153	1886	36,100
1991	494	7008	7471	1175	18992	4026	39,166
1992	113	5140	3636	613	14981	1549	26,032
1993	129	3274	4638	1211	10180	2085	21,517
1994	864	4055	5367	1036	12749	3003	27,074
1995	177	3586	4974	830	15169	1912	26,648
1996	No Data						
1997	331	3341	3984	1517	12058	3774	25,005
1998	114	4044	4813	972	15997	2901	28,841
1999	89	3579	6837	1595	15950	4652	32,702
2000	29	4268	5584	1425	19004	3940	34,250
2001	98	6118	3605	1456	13967	3831	29,075
2002	357	6651	4962	511	17104	3694	33,279
2003	1050	4025	2364	2190	13532	2741	25,902
2004	102	4845	4347	1815	16957	4076	32,142
2005	73	7308	4709	716	26597	4874	44,277
2006	18	4410	6600	1173	16487	4119	32,807
2007	394	5792	5116	1529	20272	3567	36,670
2008	836	2562	4015	1389	18586	2608	29,996
2009	444	4162	2244	606	12153	2669	22,278
2010	80	5200	3218	919	16003	3486	28,906
2011	100	3843	3820	464	12965	2415	23,607
2012	32	4230	3694	734	17180	2532	28,402
2013	11	5061	2966	1056	11658	2733	23,485
2014	192	4711	3009	1154	15578	3147	27,791
2015	380	2691	3561	1576	10460	6205	24,873
2016	452	2145	2754	1665	12916	3988	23,920
2017	284	3314	1755	590	9953	2346	18,242
2018	219	3041	2663	1162	11954	1380	20,420
2019	196	4663	2496	997	14793	2337	25,482
2020	0	1212	1250	98	5577	1389	9,526
2021	12	3446	1655	418	13213	2222	20,966
2022	72	6355	3354	996	22620	5018	38,415
2023	1117	4841	2160	2046	14603	1985	26,752

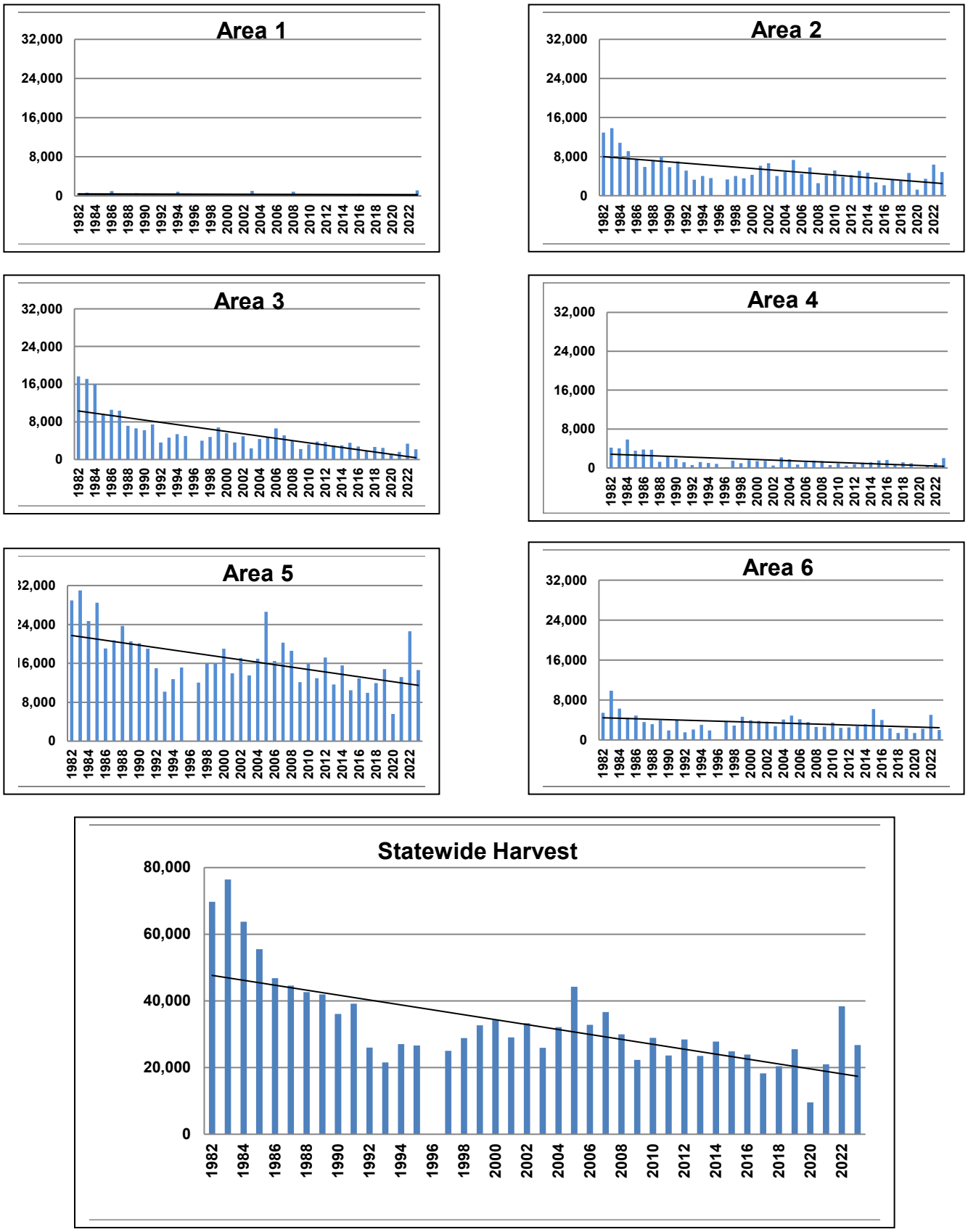


Figure 3. Mourning Dove harvest in each management area and statewide.

Table 3. Mourning Dove harvest rate (doves per hunter-day) in each management area and statewide.

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Statewide
1982	2.6	3.9	3.9	2.2	4.3	2.6	3.7
1983	3.1	2.9	4.4	2.0	3.8	3.3	3.5
1984	2.0	3.4	4.7	2.0	3.9	3.2	3.6
1985	2.5	3.4	4.0	1.8	4.7	2.7	3.7
1986	4.1	3.2	3.7	2.0	3.8	3.6	3.4
1987	1.8	2.5	4.4	2.0	4.8	2.8	3.6
1988	1.0	3.9	3.8	1.2	4.6	2.7	3.8
1989	5.3	4.3	3.6	1.4	5.4	2.8	3.9
1990	1.1	4.8	4.3	2.6	4.6	2.7	4.2
1991	3.9	3.6	4.8	1.2	4.3	4.5	3.9
1992	2.4	3.6	2.9	0.9	4.3	2.2	3.4
1993	2.6	2.2	4.1	1.1	4.2	2.1	3.0
1994	4.1	3.8	4.2	1.2	4.2	2.7	3.6
1995	1.4	2.3	3.9	1.3	4.2	2.9	3.4
1996							
1997	0.6	3.1	3.0	2.4	4.1	3.4	3.3
1998	2.3	2.7	4.3	2.1	3.9	3.2	3.6
1999	1.0	2.4	4.1	2.3	4.9	4.5	4.0
2000	1.6	3.6	4.1	1.9	4.4	4.7	4.0
2001	2.6	3.6	2.5	2.0	4.0	4.0	3.5
2002	2.8	3.9	4.1	1.6	1.7	4.3	2.4
2003	5.3	3.5	4.3	4.2	5.4	4.3	4.6
2004	4.9	3.6	4.3	4.3	4.2	5.1	4.2
2005	2.0	4.4	4.7	2.4	5.3	4.7	4.9
2006	0.5	3.8	5.0	1.5	5.4	5.1	4.6
2007	1.5	3.9	4.6	2.0	5.9	3.1	4.4
2008	4.9	2.8	4.9	1.9	4.8	2.7	4.0
2009	2.8	3.8	2.9	1.9	4.5	4.9	4.0
2010	2.9	3.2	4.6	1.2	4.0	3.6	3.6
2011	6.7	3.6	2.7	1.0	4.4	2.9	3.5
2012	2.1	2.8	3.1	1.3	5.2	3.9	3.9
2013	0.2	2.8	3.2	2.2	4.2	3.7	3.5
2014	3.3	3.3	2.9	2.5	5.0	4.1	4.1
2015	2.4	3.1	3.3	2.1	3.4	6.1	3.6
2016	1.7	2.5	4.6	2.1	4.2	3.5	3.5
2017	5.0	3.1	3.6	2.8	4.1	2.6	3.5
2018	0.8	2.5	4.1	1.5	3.9	1.9	3.1
2019	3.8	2.8	2.9	1.1	4.1	2.1	3.1
2020	0	1.3	2.6	1.4	3.5	2.3	2.6
2021	1.0	2.6	1.9	0.7	4.1	2.2	3.0
2022	0.1	2.7	2.5	1.0	4.4	2.1	3.0
2023	2.0	2.5	2.2	1.5	4.8	2.5	3.1

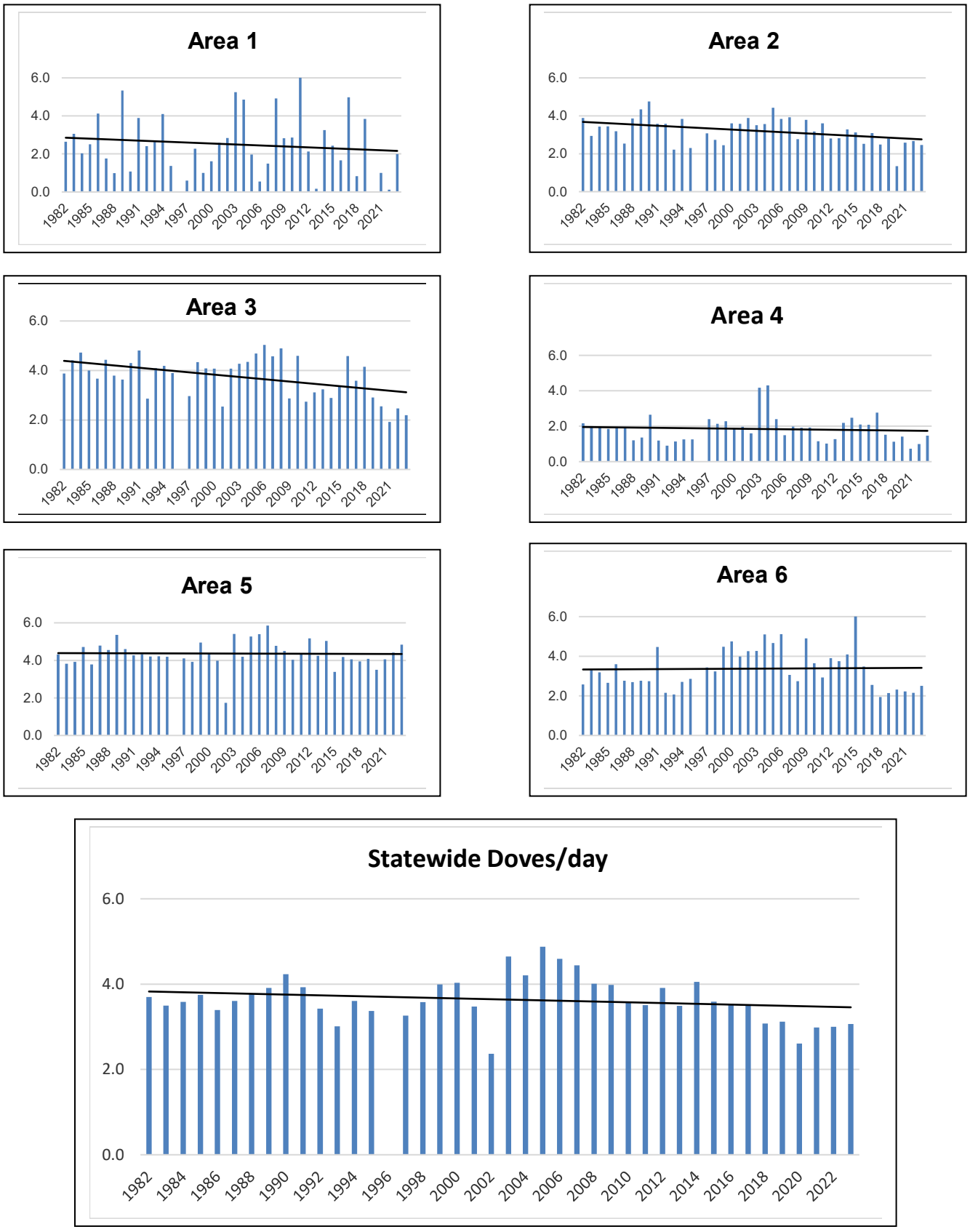


Figure 4. Mourning Dove harvest rate (doves per hunter-day in each management area and statewide).

WILD TURKEY

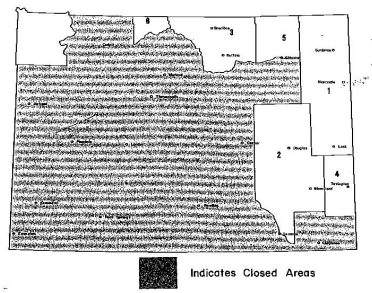
Turkeys weren't native to Wyoming, but the habitat that they prefer was present. In 1935, Sage Grouse were trapped and traded to New Mexico for nine hens and six gobblers of the Merriam's subspecies of Turkey. These were released at Cottonwood Creek in the Laramie Peak area. This release was successful, and after the population increased sufficiently birds were trapped, beginning in 1950, and transplanted to other parts of the state. There were a total of 31 transplants in-state between 1950 and 1959. An additional 26 Turkeys were obtained from New Mexico in 1951 in exchange for elk for supplemental stocking. In 1996, pronghorn were traded to Oklahoma for the Rio Grande subspecies, and these were released in the Pine Bluffs area, along the North Platte River near Casper, and near Lovell. The result of these transplants has been a population expanding in both occupied habitat and numbers, which is reflected in both the number of hunt areas and their expanding boundaries. They were also trapped and traded to other states for other wildlife species. Trades with other states brought the following species to Wyoming in exchange for Turkeys: Greater Prairie Chickens from Nebraska, mountain goats from Montana, Northern Bobwhites from Washington, and Turkish Chukars from California.

Hunting seasons have changed from all limited quota with a set number of licenses per hunt area to mostly general seasons where any number of licenses can be sold and used in multiple areas. Turkey hunting began in 1955 with fall seasons. Spring seasons were initiated in 1971. The spring season is limited to "male wild turkey, or any wild turkey with a visible beard", and the fall season is for "any wild turkey". The number of hunt areas has increased from six in 1982 (Figure 1) to 14 in 2005 (Figure 2), and some have been combined and eliminated since then. In 2014, turkey hunt areas were consolidated down to 5 total (Figure 3). In 2024 these were all combined into one hunt area for the entire state with general license hunting. Limited quota, type 3 licenses are also available that direct hunting at particular counties. Boundaries have also been changed numerous times. All of the changes over time make comparisons difficult. The 2013 Small Game, Upland Game Bird and Furbearer JCR contains a comparison of these hunt areas, when they came into existence and harvest, and these tables are provided as Appendix 1. Season dates and lengths are not altered much. The current season dates for fall hunting are September 1 – 30 for archery and October 1 – December 31 general hunting. For the spring season, the dates are April 20 – May 31.

Hunt Area	Type	Date of Seasons Opens	Closes	Season Bag Limits	Limitations
1	1	Nov. 1	Nov. 30	1	Limited quota; 2000 licenses any wild turkey.
2	1	Nov. 1	Nov. 30	1	Limited quota; 125 licenses any wild turkey.
3	1	Nov. 1	Nov. 30	1	Limited quota; 150 licenses any wild turkey. The Bud Love Winter Game Range, the Amsden Creek Winter Game Range, and the Kerns Winter Game Range will be closed to wild turkey hunting after November 15.
4	1	Nov. 1	Nov. 15	1	Limited quota; 100 licenses any wild turkey.
5					Closed.
6					Closed.

Section 5. **Archery Regulations.**

a. General Seasons. There will be an open season for the hunting of wild turkey by the use of archery equipment in all areas as set forth in Section 4 of this Chapter.



Indicates Closed Areas

Figure 1. Wyoming Wild Turkey Hunting Seasons and Hunt Area map for 1982.

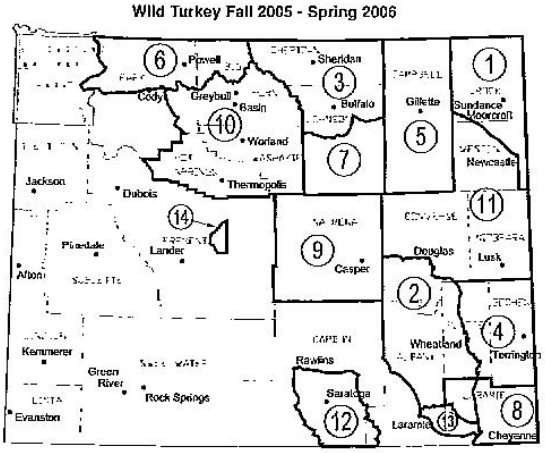


Figure 2. Wyoming Wild Turkey Hunt Area map for 2005-06.

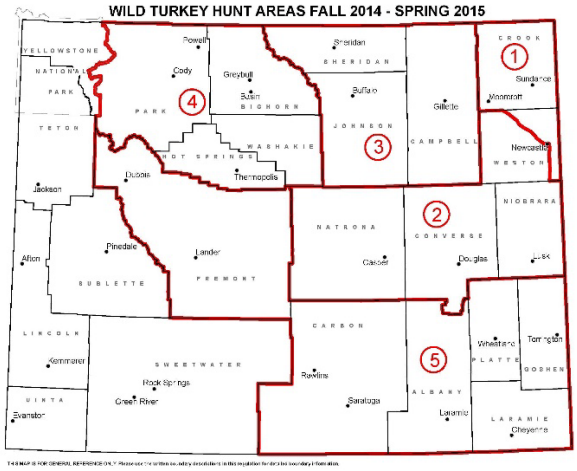


Figure 3. Wyoming Wild Turkey Hunt Area map for 2014-15 to spring, 2024.

The Department compiles Wild Turkey harvest data from the hunt area(s) open to hunting each year. The Black Hills (formerly hunt area 1) population generally produces the highest harvest, followed by Sheridan, Johnson and Campbell counties (formerly hunt area 3). Table 1 gives the harvest and percent breakdown for the hunt areas in place in 2023-24. Future harvest reports will just have statewide totals.

Table 1. Turkey harvest within individual hunt areas in 2023-24.

Hunt Area	Harvest	Percent of Total
1	2152	34.3
2	1400	22.3
3	1246	19.9
4	829	13.2
5	647	10.3

Success in hunting Turkeys is measured differently than for other game birds. Harvest statistics include percent successful hunters, recreation days, and days per harvested bird, similar to big game. There is only one bird allowed per license, and the season determines if only males or either sex can be harvested.

At the statewide level, success rates fluctuated between 45% and 60% in 35 of the 42 years throughout the period of record, and the days per harvest fluctuated mostly between 4 and 6 days in 25 of the 42 years (Figure 4). The number of hunters and harvest has an increasing trend since 1982, but there have also been two distinctive periods of reduced hunting and populations in 1992-1995 and 2009-2013. Success rates declined and days per harvest increased during those periods of reduced populations.

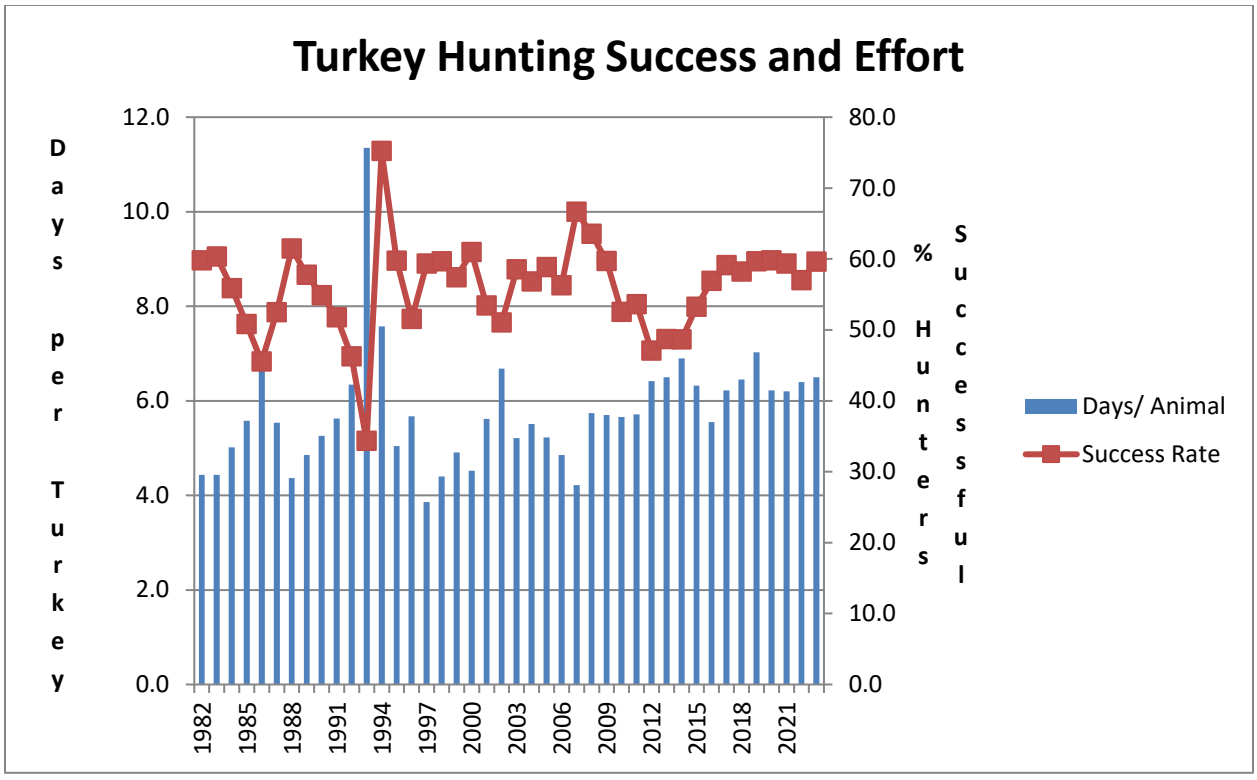


Figure 4. Wyoming statewide Wild Turkey hunting success and effort, 1982 to present.

Throughout the period of record, numbers of Turkey hunters have fluctuated in direct response to the population numbers and availability of their quarry. Some of the relationship had to do with the limited quota licenses being increased or decreased by managers, but the relationship still holds since 2004, when general license hunting became widespread. The overall trend in hunter numbers and harvest is increasing (Figures 5 and 6) with two distinctive periods of decreased harvest. Both of these periods are related to series of years with cool, wet springs that reduced nesting success and poult survival. The total number of recreation days has a similar pattern and trend (Figure 7). The 2023-24 harvest survey had the following results: total hunter numbers (10,521) were above the long-term average (5,653), total harvest (6,274) was higher than the long-term average (3,177), and recreation days (40,581) were above the average (18,202). Hunter numbers, harvest and recreation days are all the highest on record. The hunter effort (6.5 days/turkey) remained above the long-term average (5.8), while the success rate (59.6%) was above the average (56.0%). Comparisons of individual hunt areas are difficult because of the combination of changes over the years, including hunt areas being added or deleted, changes to hunt area boundaries, and spring and fall seasons not being consistently employed.

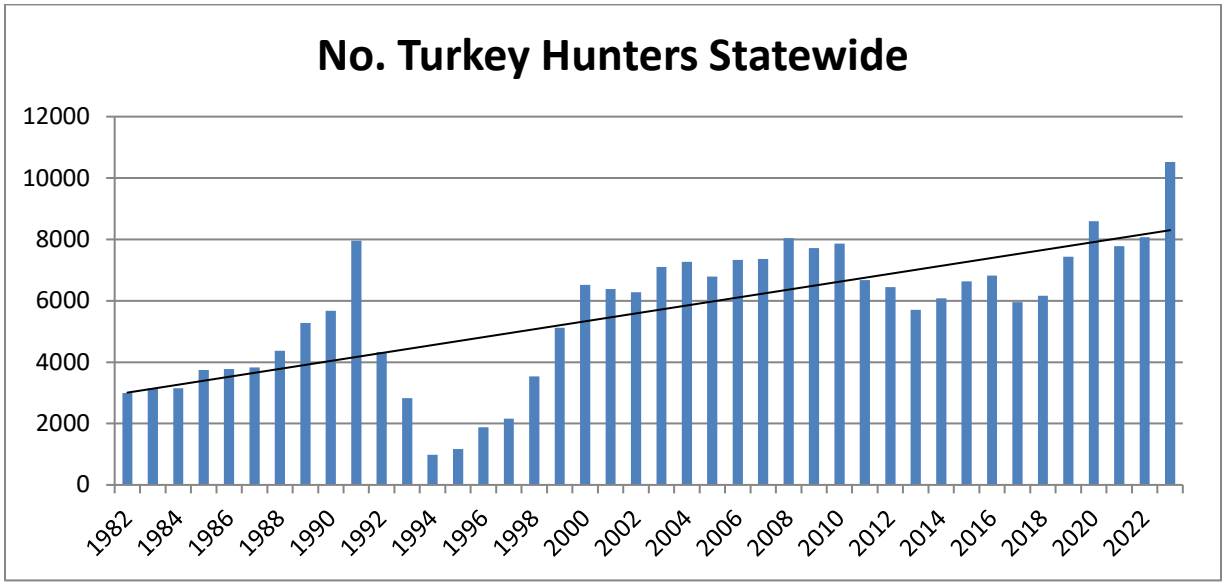


Figure 5. Statewide Wyoming Wild Turkey hunter numbers, 1982 to present. (Based on biological year – the fall season of one year and the spring season of the next year –numbers may not equal those from annual and harvest reports until 2010, which were based on calendar year figures.)

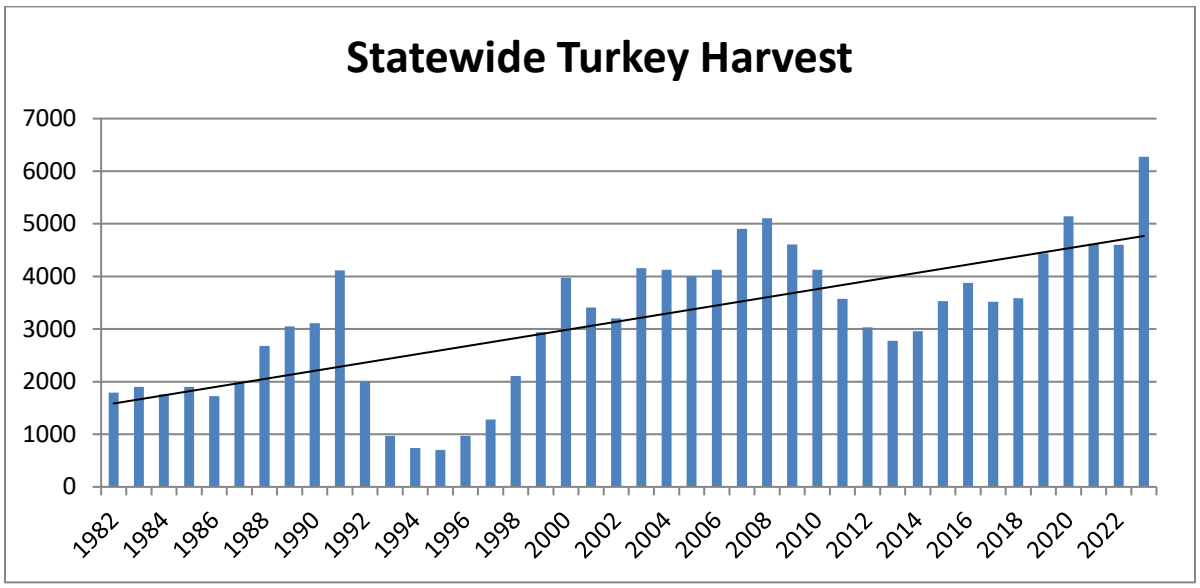


Figure 6. Statewide Wyoming Wild Turkey harvest, 1982 to present. (Based on biological year – the fall season of one year and the spring season of the next year –numbers may not equal those from annual and harvest reports until 2010, which were based on calendar year figures.)

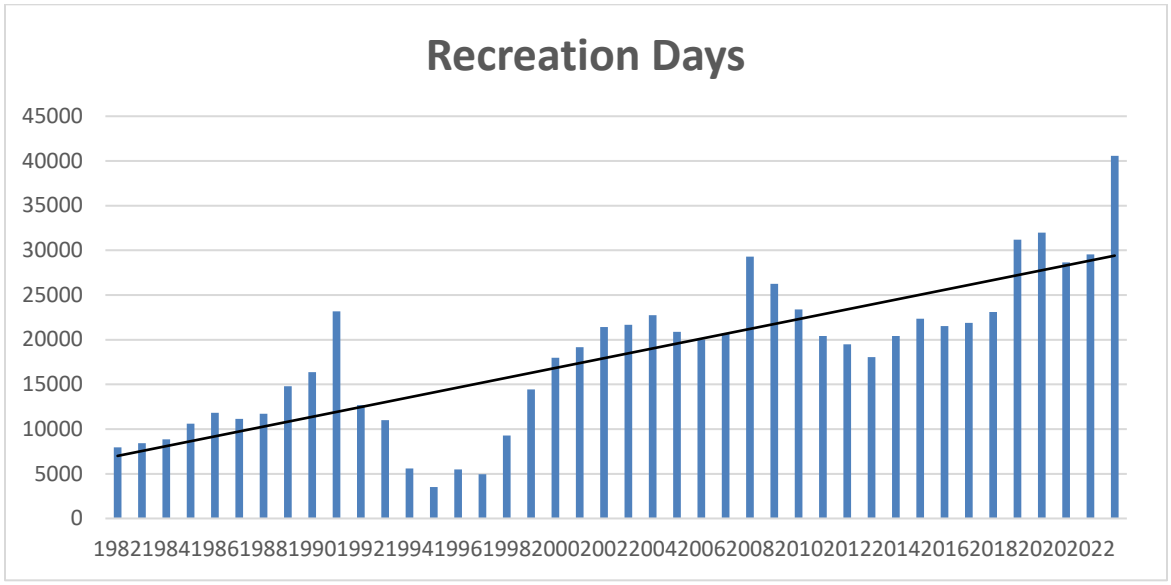


Figure 7. Statewide Wyoming Wild Turkey recreation days, 1982 to present. (Based on biological year – the fall season of one year and the spring season of the next year –numbers may not equal those from annual and harvest reports until 2010, which were based on calendar year figures.)

Initially, all hunting for turkeys was done in the fall. Spring seasons were started in 1971. Since 1982, there has been a definite shift to the spring hunting season for turkey hunting in Wyoming. Hunt area 1 (Black Hills) is used as an example, showing the change of spring season harvest from about 30% in 1982 to about 77% in 2023 (Figure 8).

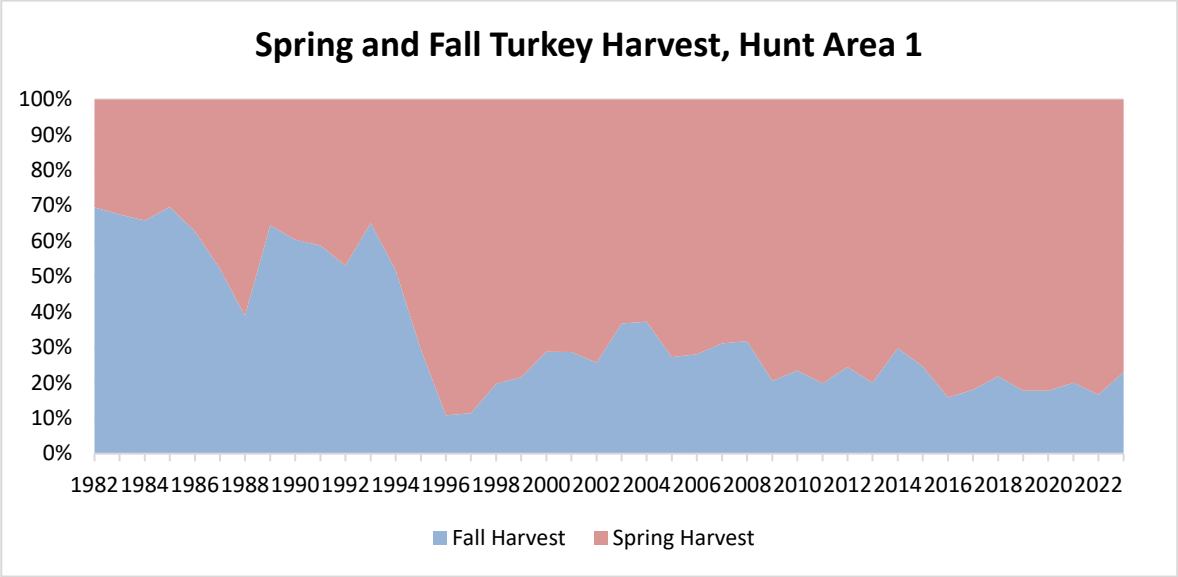


Figure 8. Hunt Area 1 Spring and Fall Turkey harvest, 1982 to present.

During the fall hunting season any Turkey can be taken. There has been a general trend to take hens at a lower percent of the harvest since 1982. In 1982, hens were about 35% of the harvest, while recently they have made up about 10-16% of the harvest (Figure 9). The shift to spring hunting when only male turkeys may be taken has some part in reduced hen harvest. At the same time, success rates and days per animal figures shown in Figure 4 have changed mostly in response to overall population size, suggesting that there are more toms available for hunting.

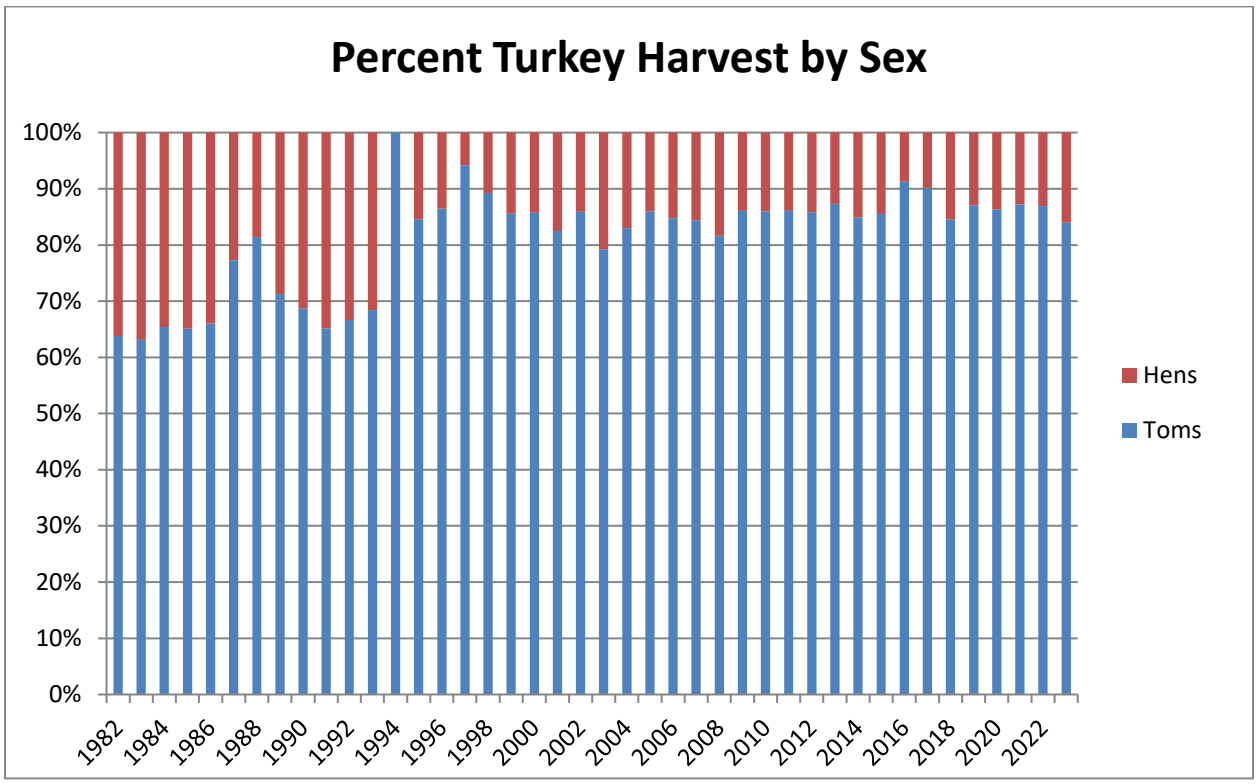


Figure 9. Wyoming Wild Turkey harvest percent by sex – 1982 to present. (Based on biological year – the fall season of one year and the spring season of the next year –numbers may not equal those from annual and harvest reports until 2010, which were based on calendar year figures.)

Appendix 1.

Table 1. Wyoming Turkey Hunt Area Summary.

Year	Hunt Area 1	HA 2	HA 3	HA 4	HA 5	HA 6
1964	1,232					
1974	1,624	148	42			8
1984	1,445	103	152	20	21	0
1994	427	78	135	57	30	5
2004	2,589	416	364	198	82	31
2013	989	246	737	318	0	79
Seasons	1964-69 (Fall only), 1970 - 2014	1973 (Spring)-2014	1975 (Spring)-2014	1979-2014	1979-'96, '98-2012	1973-'83, '87-'95, '99-2014
High harvest	2,813 in 1991-92	550 in 2003-04	1,156 in 2000-01	337 in 2000-01	288 in 1992-93	109 in 2011-12

Year	HA 7	HA 8	HA 9	HA 10	HA 11	HA 12
1974	3					
1984	20					
1994	0	5				
2004	89	13	128	35	174	7
2013	0	22	127	100	119	0
Seasons	1973, '75, '83-'94, '98-2012	1993-2014	1998-2014	2001-14	2004-14	2004-09 (Spring only)
High harvest	128 in 2008-09	28 in 2006-07	329 in 2010-11	132 in 2008-09	345 in 2007-08	7 in 2005

Year	HA 13	HA 14	Converse/Niobrara			
1974			28			
1984						
1994						

2004	4	0				
2013	41	0				
Seasons	2004-14	2005-2014	1971-74			
High harvest	41 in 2013-14	21 in 2005-06	28 in 1973-74			

Table 2. Turkey harvest within individual hunt areas in 2013-14.

Hunt Area	Harvest	Percent of Total
1	989	35.6
2	246	8.9
3	737	26.5
4	318	11.4
6	79	2.8
8	22	0.8
9	127	4.6
10	100	3.6
11	119	4.3
13	41	1.5
14	0	0

Appendix 1: Upland Game Bird and Small Game Hunting Seasons.

CHAPTER 11

UPLAND GAME BIRD AND SMALL GAME HUNTING SEASONS

Section 1. Authority. This regulation is promulgated by authority of Wyoming Statutes § 23-1-302 and § 23-2-105.

Section 2. Hunting Regulations.

(a) Bag and Possession Limit. Only one (1) daily bag limit of each species of upland game birds and small game may be taken per day regardless of the number of hunt areas hunted in a single day. When hunting more than one (1) hunt area, a person's daily and possession limits shall be equal to, but shall not exceed, the largest daily and possession limit prescribed for any one (1) of the specified hunt areas in which the hunting and possession occurs.

(b) Evidence of sex and species shall remain naturally attached to the carcass of any upland game bird in the field and during transportation. For pheasant, this shall include the feathered head, feathered wing or foot. For all other upland game bird species, this shall include one fully feathered wing.

(c) No person shall possess or use shot other than nontoxic shot for hunting game birds and small game with a shotgun on the Commission's Table Mountain and Springer Wildlife Habitat Management Areas and on all national wildlife refuges open for hunting.

(d) Required Clothing. Any person hunting pheasants within the boundaries of any Wyoming Game and Fish Commission Wildlife Habitat Management Area, or on Bureau of Reclamation Withdrawal lands bordering and including Glendo State Park, shall wear in a visible manner at least one (1) outer garment of fluorescent orange or fluorescent pink color which shall include a hat, shirt, jacket, coat, vest or sweater.

Section 3. Upland Game Bird Hunting Seasons.

(a) Sage Grouse Hunt Areas, Season Dates, Bag Limits and Limitations.

SAGE GROUSE					
Hunt Area	Season Dates		Bag Limit		Limitations
	Opens	Closes	Daily	Possession	
1	Sep. 21	Sep. 30	2	4	Any sage grouse
2, 3, 4					CLOSED

(i) Sage Grouse Hunt Area Descriptions.

Area 1. Includes all of Big Horn, Fremont, Hot Springs, Park, Sweetwater, Uinta and Washakie counties, as well as that portion of Albany County north of U.S. Highway 30-287 and west of the Fetterman Road (Albany County Road 61), that portion of Converse County south and west of the Balsh Road (U.S.F.S. Road 660), all of Carbon County except that portion east of the Medicine Bow River and South of U.S. Highway 30-287, all of Lincoln and Sublette counties except those portions within the Snake River drainage, and all of Natrona County except that portion east of Interstate Highway 25. Area 1 also excludes that portion of Natrona County south of Interstate Highway 25 in the Muddy Creek drainage.

Area 2. The entire state of Wyoming excluding the lands described in Areas 1, 3 and 4.

Area 3. All lands in the Snake River drainage within Lincoln, Sublette and Teton counties.

Area 4. Beginning at the intersection of the Sheridan-Big Horn county line with the Wyoming-Montana state line; easterly along said state line to the Rocky Point Road in Crook County; southerly along said road to the "D" Road; southerly along said road to Interstate Highway 90; easterly along said highway to U.S. Highway 16 at Moorcroft; southeasterly along said highway to U.S. Highway 85 at Newcastle; southerly along said highway to the Weston- Niobrara-Campbell-Converse-Natrona-Johnson county lines; westerly along said county lines to the Washakie-Johnson-Big Horn-Sheridan county lines; northerly then northwesterly along said county lines to the Wyoming-Montana state line.

(b) A sage grouse hunting permit shall be required of any licensed hunter who participates in hunting sage grouse. The sage grouse hunting permit shall be in possession of any person while hunting sage grouse, and shall be immediately produced for inspection upon request from any authorized Department representative. The permit shall be available at headquarters, regional offices and the department website.

(c) Blue (Dusky) Grouse Hunt Areas, Season Dates, Bag Limit and Limitations.

BLUE (DUSKY) GROUSE					
Hunt Area	**Season Dates**		**Bag Limit**		
	Opens	**Closes**	**Daily**	**Possession**	**Limitations**
1	Sep. 1	Dec. 31	3	9	Any blue (dusky) grouse

(i) Blue (Dusky) Grouse Hunt Area Description.

Area 1. The entire state of Wyoming.

(d) Ruffed Grouse Hunt Areas, Season Dates, Bag Limits and Limitations.

RUFFED GROUSE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 1	Dec. 31	3	9	Any ruffed grouse

Ruffed Grouse Hunt Area Description.

Area 1. The entire state of Wyoming.

(e) Partridge Hunt Areas, Season Dates, Bag Limit and Limitations.

CHUKAR PARTRIDGE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 15	Jan. 31	5	15	Any chukar partridge

GRAY PARTRIDGE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 15	Jan. 31	5	15	Any gray partridge

(i) Partridge Hunt Area Description.

Area 1. The entire state of Wyoming.

(f) Sharp-Tailed Grouse Hunt Areas, Season Dates, Bag Limit and Limitations.

SHARP-TAILED GROUSE					
Hunt Area	Season Dates		Bag Limit		
	Opens	Closes	Daily	Possession	Limitations
1	Sep. 1	Dec. 31	3	9	Any sharp-tailed grouse

(i) Sharp-Tailed Grouse Hunt Area Description.

Area 1. That portion of Wyoming east of the Continental Divide.

(g) Pheasant Hunt Areas, Season Dates, Bag Limit, Limitations and Shooting Hours.

PHEASANT							
Hunt Area	Season Dates		Bag Limit		Limitations	Shooting Hours	
	Opens	Closes	Daily	Possession		Start	End
1	Nov. 1	Dec. 31	3	9	Male pheasant only except those areas in Sheridan and Johnson counties that require a Pheasant Special Management Permit in Section 4 shall be open for any pheasant. (Youth Hunt-Refer to Section 7)	½ hour before Sunrise	Sunset
2	Nov. 1	Dec. 1	2	6	Any pheasant (Youth Hunt-Refer to Section 7)	Week Days 8:00 a.m.	2:00 p.m.
						Weekend Days 8:00 a.m.	Sunset
2	Dec. 2	Dec. 31	2	6	Male pheasant only	½ hour before Sunrise	Sunset
5	Nov. 1	Dec. 31	3	9	Male pheasant only except that portion of Area 5 north of the Shoshone River and west of the Yellowtail Reservoir shall be open for any pheasant (Youth Hunt-Refer to Section 7)	Veterans Day (State Observed Holiday), Thanksgiving Day, Christmas Day, and Weekend Days ½ hour before Sunrise	Sunset
						Week Days 11:00 a.m.	Sunset
7	Nov. 1	Dec. 31	3	9	Male pheasant only except that portion of Area 7 on the Table Mountain WHMA shall be open for any pheasant	½ hour before Sunrise	Sunset
						Table Mountain WHMA	
						8:00 a.m.	4:00 p.m.
8	Oct. 11	Oct. 31	3	Season Limit 9	Any pheasant (Springer permits) Refer to Section 5	8:00 a.m.	4:00 p.m.

PHEASANT							
Hunt Area	Season Dates		Bag Limit		Limitations	Shooting Hours	
	Opens	Closes	Daily	Possession		Start	End
8	Nov. 1	Nov. 15	3	9	Any pheasant	8:00 a.m.	4:00 p.m.
9	Nov. 1	Dec. 31	3	9	Any pheasant (Youth Hunt - Refer to Section 6)	8:00 a.m.	3:00 p.m.
11	Nov. 1	Dec. 31	3	9	Any pheasant	½ hour before Sunrise	Sunset

(i) Pheasant Hunt Area Descriptions.

Area 1. All of Fremont County, excluding those lands described in pheasant hunt area 2. All of Sheridan, Johnson, Park, Washakie and Hot Springs counties, and all of Big Horn County excluding those lands described in pheasant hunt area 5.

Area 2. All lands in the Ocean Lake Wildlife Habitat Management Area, the Mile High Ranch Access Area, the Killebrew Ranches Access Area and all lands in the Sand Mesa Wildlife Habitat Management Area east of the Bass Lake Road.

Area 5. All of the lands included in the Yellowtail Wildlife Habitat Management Area north of U.S. Highway 14A.

Area 7. All of Goshen County excluding Hunt Area 8.

Area 8. All of the lands included in the Springer/Bump-Sullivan Wildlife Habitat Management Area.

Area 9. All Bureau of Reclamation Withdrawal lands bordering and including Glendo State Park and the adjoining Department's Access Yes Walk-in Area.

Area 11. The entire State of Wyoming excluding the lands described in Areas 1, 2, 5, 7, 8 and 9.

(ii) Closed Areas.

(A) The waters and lands within one-half (1/2) mile of the aeration system on the north side of Ocean Lake shall be closed to pheasant hunting beginning December 15 through December 31 of each year.

(B) The Downar Bird Farm and Springer Headquarters in Goshen County shall be closed to pheasant hunting as marked by signs.

(C) Pond Number 1 and adjacent lands on the Table Mountain Wildlife Habitat Management Area in Goshen County, as marked by colored signs and posts, shall be closed to pheasant hunting after November 15.

(D) The Sheridan Bird Farm in Sheridan County shall be closed to pheasant hunting, except during hunts sponsored and supervised by the Wyoming Game and Fish Department.

Section 4. Pheasant Special Management Permit. A Pheasant Special Management Permit shall be required of any person, except those exempted in this section, who participates in the hunting of pheasants in those areas listed in subsection (a) of this section.

Owners of lands enrolled in the Department's Access Yes Walk-In Areas, and members of their immediate families (landowner's spouse, parents, grandparents, lineal descendants and their spouses or siblings) are exempt from the requirement to obtain a Pheasant Special Management Permit when they are hunting pheasants on the deeded land of the landowner. The Pheasant Special Management Permit shall be in possession of any person while hunting pheasants, and shall be immediately produced for inspection upon request from any authorized Department representative. The permit shall be available at Headquarters, Department Regional Offices and designated license selling agents.

(a) Pheasant Special Management Permit Areas. A Pheasant Special Management Permit shall be required to hunt pheasants in the areas listed in this subsection:

(i) Bud Love Wildlife Habitat Management Area in Johnson County.

(ii) Glendo State Park; including all Bureau of Reclamation Withdrawal lands bordering the Park and the adjoining Department's Access Yes Walk-In Area in Platte County.

(iii) Ocean Lake Wildlife Habitat Management Area, the Mile High Ranch Access Area and the Killebrew Ranches Access Area in Fremont County.

(iv) Springer Wildlife Habitat Management Area in Goshen County.

(v) Table Mountain Wildlife Habitat Management Area in Goshen County.

(vi) Yellowtail Wildlife Habitat Management Area, excluding any private lands included within the Yellowtail Wildlife Habitat Management Area, in Big Horn County.

(vii) All lands in the Sand Mesa Wildlife Habitat Management Area east of the Bass Lake Road in Fremont County.

(viii) All lands open to the hunting of pheasants that are enrolled in the Department's Access Yes Program, excluding Walk-In Access Areas in Big Horn, Fremont, Hot Springs, Park and Washakie counties on which pheasants are not released by the Department.

(ix) All State Trust land in Sheridan County.

(x) Welch Ranch Management Area in Sheridan County.

Section 5. Springer Permit Pheasant Season. There shall be a Springer permit pheasant season in Hunt Area 8 beginning October 11 through October 31. In order to participate in this season, a person shall possess and present upon request a valid Springer permit, a valid bird license and conservation stamp (unless otherwise exempted

by state statute) and a Pheasant Special Management Permit. The Springer permit shall only be valid for the day printed on the permit by the Department.

(a) Application for Springer Permits. Applications shall be submitted through the Electronic Licensing Service (ELS). Only youths may apply for Springer permits for youth only hunt days as set forth in Section 5 (c) of this Chapter. A drawing shall be utilized to determine successful applicants. A person shall only submit a single application. Successful applicants shall be notified by mail of their hunting date and furnished a set of special instructions.

(b) Issuance of Springer Permits. A maximum of one hundred twenty (120) permits shall be issued to successful applicants in the drawing for each day of the Springer permit pheasant season. A maximum of one hundred twenty (120) hunters shall be allowed to hunt at any one time during the Springer permit pheasant season. When a hunter checks out of the Springer Check Station, the Department may issue a permit to another person at the check station. If all one hundred twenty (120) permits for a single day have not been issued by the Department, or if the check station attendants are advised that a permitted hunter will not participate, the Department may issue a permit to another person at the check station on a first- come, first-served basis, not to exceed a maximum of one hundred twenty (120) permitted hunters. Permitted hunters may begin hunting at 8:00 a.m. Hunters who are issued permits through the drawing must check in at the check station by 8:00 a.m. on the date their permit is valid. Permits that are unclaimed after 8:00 a.m. may be issued to other hunters on a first-come, first-served basis.

(c) Youth Only Hunt Days. Only youths shall be allowed to take pheasants on the youth hunt days. Youths under the age of fourteen (14) shall be accompanied by an adult. No adult shall take any pheasant during the youth only hunt days. The youth only hunt days are October 12, 20 and 26.

(d) Springer Check Station. The Springer Check Station is located one and one- quarter (1-1/4) miles west of U.S. Highway 85 on the south boundary of the Springer Wildlife Habitat Management Area. The hours of operation of the check station shall be from 7:00 a.m. to 4:30 p.m. daily during the Springer permit pheasant season. Persons participating in the Springer permit pheasant season shall check in at the check station prior to hunting. Prior to leaving the Springer permit pheasant area, each hunter shall check out at the check station by 4:30 p.m. on the same day that the hunter registered and shall accurately report all harvested pheasants and return all special hunt materials to the check station.

(e) Parking Assignment. Parking lot assignments and tags shall be issued by the Department for each vehicle utilized by hunters. Parking lot tags shall be displayed in a visible manner in each vehicle. All vehicles shall be parked in assigned parking lots.

Section 6. Glendo Pheasant Hunt Area 9 Youth Pheasant Hunt. Only youths shall be allowed to take pheasants on the dates listed in this section. Youths under the age of fourteen (14) shall be accompanied by an adult. No adults shall take any pheasant during the youth only hunt days. Youth only hunt days shall be the following Sundays; November 3, 10, 17 and 24.

Section 7. Bud Love Wildlife Habitat Management Area, Yellowtail Wildlife Habitat Management Area and Pheasant Hunt Area 2 Youth Pheasant Hunt. Only youths shall be allowed to take pheasants on the dates listed in this section. Youths under the

age of fourteen (14) shall be accompanied by an adult. No adults shall take any pheasant during the youth only hunt days.

(a) The Bud Love Wildlife Habitat Management Area and pheasant Hunt Area 2 youth only hunt day is Saturday, November 16.

(b) The Yellowtail Wildlife Habitat Management Area youth only hunt days are November 15-17 and shall take place on all lands included in the Yellowtail Wildlife Habitat Management Area north of the Shoshone River.

Section 8. Small Game Hunting Seasons.

(a) Small Game Species, Seasons Dates, Bag Limits and Limitations.

	Season Dates		Bag Limit		
Species	**Opens**	**Closes**	**Daily**	**Possession**	**Limitations**
Cottontail Rabbit	Sep. 1	Mar. 31	10	20	Any cottontail rabbit
Snowshoe Hare	Sep. 1	Mar. 31	4	8	Any snowshoe hare
Red, Grey and Fox Squirrel	Sep. 1	Mar. 31	10	20	Any red, grey or fox squirrel

(i) Small Game Hunt Area Description.

Area 1. The entire state of Wyoming.

Section 9. Archery Regulations. Upland game birds and small game may be taken with archery equipment in accordance with limitations set forth in this Chapter.

Section 10. Upland Game Bird and Small Game Falconry Seasons.

(a) Upland game birds may be taken with falcons in accordance with Section 3 of this Chapter. Persons hunting with falcons may take any pheasant.

(b) The falconry season shall open September 1 and close March 1 in those open hunt areas listed in Section 3 of this Chapter and subject to the closures listed in Subsection 10(c) of this Chapter.

(c) Closed Areas.

Pheasant Hunt Area	Limitations
8, 9	Closed to falconry hunting

Also refer to closed areas in Section 3.

(d) The daily bag and possession limits for upland game birds other than sage grouse, shall be as set forth in Section 3 of this Chapter. The daily bag limit shall be one (1) sage grouse and the possession limit shall be two (2) sage grouse.

(e) Persons taking sage grouse with falcons shall respond to Department surveys not later than May 1, 2025 requesting harvest information for the period September 1, 2024 through March 1, 2025.

(f) Small game animals may be taken with falcons in accordance with the open seasons in the table below.

Species	Falconry Season Dates		Bag Limit		Limitations
	Opens	Closes	Daily	Possession	
Cottontail Rabbit	Sep. 1	Mar. 1	10	20	Any cottontail rabbit
	Mar. 2	Aug. 31	1	2	Any cottontail rabbit
Snowshoe Hare	Sep. 1	Mar. 1	10	20	Any snowshoe hare
	Mar. 2	Aug. 31	1	2	Any snowshoe hare
Red, Grey and Fox Squirrel	Sep. 1	Mar. 1	10	20	Any red, grey or fox squirrel
	Mar. 2	Aug. 31	1	2	Any red, grey or fox squirrel

WYOMING GAME AND FISH COMMISSION

By: Richard A. Ladwig

Richard Ladwig, President

Dated: April 16, 2024

Appendix 2: Wild Turkey Fall and Spring Hunting Seasons

CHAPTER 20
WILD TURKEY HUNTING SEASONS

Section 1. Authority. This regulation is promulgated by authority of Wyoming Statute § 23-1-302.

Section 2. Hunting Regulations.

(a) No person shall apply for or receive more than one (1) license for a wild turkey during any one (1) season, except as otherwise provided in this regulation. The maximum bag limit for wild turkey for any person with the proper license shall not exceed one (1) wild turkey per license.

(b) Issuance of Licenses. No person shall apply for or receive more than one (1) fall wild turkey license and one (1) spring wild turkey license in any calendar year. After the initial drawing is completed, a person may apply for and receive up to three (3) wild turkey licenses

valid for each season, provided that at least two (2) of those licenses are Limited Quota Type 3 licenses. However, no person shall apply for and receive more than a total of three (3) wild turkey licenses valid for the fall season and no more than a total of three (3) wild turkey licenses valid for the spring season, except as authorized in Commission regulations.

(c) No person shall possess or use shot other than nontoxic shot for hunting wild turkeys with a shotgun on all of the lands in the Springer and Table Mountain Wildlife Habitat Management Areas and on all national wildlife refuges open for hunting.

(d) Evidence of Sex. During the spring season in those hunt areas limited to the taking of male wild turkeys or any wild turkey with a visible beard, proof of sex shall accompany the turkey carcass, attached or unattached while the wild turkey is in transportation from the site of the kill to the residence of the person taking the wild turkey, or delivered to a processor for processing. Proof of sex for male wild turkeys shall include either one leg including the spur, or a patch of skin with the breast feathers and beard attached; and for female wild turkey (bearded hen) a patch of skin with the breast feathers and beard attached.

(e) Yellowtail Wildlife Habitat Management Area. During the spring season, no person shall attempt to take a wild turkey on the lands of the Wyoming Game and Fish Commission's Yellowtail Wildlife Habitat Management Area without possessing a valid Hunter Management Area permission slip issued to them by the Department for said management area and the date(s) of any attempt to take.

(f) 2024 Fall Season. Hunt Areas, Season Dates and Limitations.

Hunt Area	Type	Season Dates Opens	Closes	Quota	Limitations
1	Gen	Sep. 1	Sep. 30		Any wild turkey, archery only
1	Gen	Oct. 1	Dec. 31		Any wild turkey
1	3	Sep. 1	Sep. 30	750	Any wild turkey valid within Converse, Natrona, Campbell, Johnson and Sheridan counties, archery only
1	3	Oct. 1	Dec. 31		Any wild turkey valid within Converse, Natrona, Campbell, Johnson and Sheridan counties

(g) 2025 Spring Season. Hunt Areas, Season Dates and Limitations.

Hunt Area	Type	Season Dates Opens	Closes	Quota	Limitations
1	Gen	Apr. 20	May 31		Any male wild turkey or any wild turkey with a visible beard (Hunter Management Area permission slip required to hunt on the Yellowtail Wildlife Habitat Management Area)
1	3	Apr. 1	Apr. 19	700	Any male wild turkey or any wild turkey with a visible beard valid within Natrona, Campbell, Johnson and Sheridan counties
1	3	Apr. 20	May 31		Any male wild turkey or any wild turkey with a visible beard valid within Converse, Natrona, Campbell, Johnson and Sheridan counties

Section 3. Archery Regulations. Wild turkey may be taken with any archery equipment during any open season in accordance with Section 2 of this Chapter.

Section 4. Hunt Area Descriptions.

Area and Number.

Area 1. The entire State of Wyoming.

WYOMING GAME AND FISH COMMISSION

By:

Richard Ladwig, President

Dated: April 16, 2024

Appendix 3: Migratory Game Bird Hunting Seasons

CHAPTER 14
MIGRATORY GAME BIRD HUNTING SEASONS AND LIGHT GOOSE CONSERVATION ORDER

Section 1. Authority. This regulation is promulgated by authority of Wyoming Statutes § 23-1-302 and § 23-2-105.

Section 2. Hunting Regulations.

(e) Federal Regulations. 50 CFR 20.21(i) revised as of August 8, 2019, which do not include any later amendments or editions of the incorporated matter, governing the baiting of migratory game birds, are adopted as regulations of the Wyoming Game and Fish Commission. Violations of these federal statutes and regulations shall be violations of the Commission regulations. A copy of Title 50 of the Code of Federal Regulations can be viewed at the Cheyenne Headquarters, Department Regional Offices or on the U.S. Fish and Wildlife Service website (www.fws.gov).

(f) Federal Migratory Bird Hunting and Conservation Stamp (federal duck stamp). A federal duck stamp is required for persons sixteen (16) years of age and older to hunt ducks, geese and mergansers. A federal duck stamp is not required to hunt coots, sandhill cranes, crows, mourning doves, rail or snipe. Federal duck stamps shall be signed in ink across the face of the stamp and shall be in possession of the hunter while in the field. Hunters possessing an electronic federal duck stamp are exempted from this signature provision during the time their electronic federal duck stamp is valid.

(g) HIP Permit. Each licensed hunter who hunts migratory game birds shall complete a current Wyoming validation for the National Migratory Bird Harvest Information Program (HIP) and shall obtain a Wyoming HIP permit. This requirement also applies to holders of pioneer and lifetime hunting licenses. Each licensed hunter engaged in the act of hunting doves, ducks, geese, mergansers, coots, rails, cranes or snipe shall be in possession of a Wyoming HIP permit and shall immediately produce said permit upon request from any authorized Department representative. HIP permits shall be signed in ink across the face of the permit and shall be in possession of the hunter while in the field. HIP permits expire on June 30 each year. HIP permits are not transferrable to other states. A separate HIP permit is required from each state in which you hunt. Wyoming HIP permits shall be available only on the Department website. Youths under 14 are not required to obtain a HIP permit if they do not hold a valid game bird license.

(h) No person shall take migratory game birds:

- With a trap, snare, net, rifle, pistol, swivel gun, shotgun larger than 10 gauge, punt gun, machine gun, fishhook, poison, drug, explosive or stupefying substance;

- With any shotgun that can hold more than three (3) shells in the magazine and chamber combined, except during the light goose conservation order (refer to Section 7 of this regulation);

(h) From a sink box or any low floating device, which has a depression to hide a person underneath the water's surface;

(i) From or by means of any motorboat or sailboat unless the motor has been completely shut off or sail furled, and the boat's progress therefrom has ceased;

(j) By the use or aid of live decoys. All live, tame or captive ducks and geese shall be removed for a period of ten (10) consecutive days prior to hunting, and shall be confined within an enclosure which substantially reduces the audibility of their calls and totally conceals such birds from the sight of migratory game birds;

(k) By the use of records or tapes of migratory bird calls or sounds, or electronically amplified imitations of bird calls, except during the light goose conservation order;

(l) By driving, rallying or chasing migratory game birds with any motor driven land, water or air conveyance or any sailboat.

(b) Nontoxic Shot. No person shall hunt ducks, geese, mergansers or coots while possessing shot other than nontoxic shot. Nontoxic shot is also required when using a shotgun to hunt any game bird on the Commission's Table Mountain and Springer/Bump-Sullivan wildlife habitat management areas.

(c) Evidence of Species. One fully-feathered wing or the feathered head shall remain naturally attached to the carcass as a means of identification of migratory game birds, except mourning doves, in the field and while the birds are being transported.

(d) Mourning Dove, Rail and Snipe Hunting Seasons.

MOURNING DOVE, RAIL AND SNIPE - STATEWIDE					
Species	**Season Dates**		**Closed Areas Section 3 Subsections**	**Bag Limit**	
	Opens	**Closes**		**Daily**	**Possession**
Mourning Dove	Sep. 1	Nov. 29	b, d, e a – after Nov. 15 c – after Nov. 14	15	45
Sora and Virginia Rail	Sep. 1	Nov. 9	b, d, e	25	75
Snipe	Sep. 1	Dec. 16	b, d, e a – after Nov. 15 c – after Nov. 14	8	24

(h) Sandhill Crane Hunting Seasons

LIMITED QUOTA PERMIT - SANDHILL CRANE SEASONS					
Hunt Areas	**Season Dates**		**Permit Quota**	**Closed Areas Section 3 Subsections**	**Season Bag Limit**
	Opens	**Closes**			
1	Sep. 1	Sep. 15	41		1

2	Sep. 1	Sep. 15	41		1	
3	Sep. 1	Sep. 8	165	d	1	
4	Sep. 28	Oct. 20	165		1	
5	Sep. 1	Sep. 15	41		1	
6	Sep. 14	Oct. 6	165		1	
8	Sep. 1	Sep. 30	62		1	
GENERAL PERMIT - SANDHILL CRANE SEASONS						
Hunt Area	**Season Dates**		**Closed Areas Section 3 Subsections**	**Bag Limit**		
	Opens	**Closes**		**Daily**	**Possession**	
7	Sep. 7	Nov. 3	b	3	9	

(f) Permits. All persons, regardless of age, hunting sandhill cranes shall possess a permit valid for the hunt area in which they are hunting. No person shall apply for or receive more than one (1) limited quota sandhill crane permit during a calendar year. A person may also obtain a permit valid for the general sandhill crane season in Hunt Area 7.

- Limited Quota Sandhill Crane Permits. Persons may apply for limited quota sandhill crane permits through the Department's Electronic Licensing Service (ELS). Party applications shall be accepted. Maximum party size shall be two (2). Residents and nonresidents shall not apply together as a party.

- General Sandhill Crane Permits. Permits to hunt during the general sandhill crane season (Hunt Area 7) shall be available through the Department's ELS.

(g) Tagging Sandhill Cranes. When a sandhill crane is killed under a limited quota permit, the permittee shall detach, sign and date the carcass coupon and attach the coupon to the carcass before leaving the site of the kill. The coupon shall remain on the crane carcass at all times until the meat undergoes processing, except that during transportation of the carcass the coupon may be removed to prevent its loss. If the coupon is removed for transportation of the carcass, it shall be in possession of the person accompanying the carcass at all times. When dating a carcass coupon, the entire wedge or block shall be cut out for the date and the month of the kill. The carcass coupon shall be attached to the carcass of a sandhill crane in such a manner as to be plainly visible. Sandhill cranes killed during the general sandhill crane season in Hunt Area 7 are not required to be tagged.

(h) Limited Quota and General Sandhill Crane Hunt Area Descriptions.

Area and Number.

Area 1. All of the Bear River and Ham's Fork River drainages in Lincoln County.

Area 2. All of the Salt River drainage in Lincoln County south of the McCoy Creek Road.

Area 3. All lands within the Bureau of Reclamation's Eden Project in Sweetwater County.

Area 4. All lands within the Bureau of Reclamation's Riverton and Boysen Unit boundaries; those lands within Boysen State Park south of Cottonwood Creek, west of Boysen Reservoir, and south of U.S. Highway 20-26; and all non-indian owned fee title lands within the exterior boundaries of the Wind River Reservation, excluding those lands within Hot Springs County.

Area 5. All of Uinta County.

Area 6. All of Big Horn, Hot Springs, Park and Washakie counties.

Area 7. All of Campbell, Converse, Crook, Goshen, Laramie, Niobrara, Platte and Weston counties.

Area 8. All of Johnson, Natrona and Sheridan counties.

(c) Waterfowl Hunting Seasons

- Pacific Flyway

PACIFIC FLYWAY					
Species	**Season Dates**		**Closed Areas Section 3 Subsections**	**Bag Limit**	
	Opens	**Closes**		**Daily**	**Possession**
Ducks and Mergansers	Sep. 21	Jan. 3	d, e f - through Oct. 8	7*	21*
Coots	Sep. 21	Jan. 3	d, e f - through Oct. 8	15	45
Early Canada Goose	Sep. 1	Sep. 8	d, e f - through Oct. 8	5	15
Dark Geese	Sep. 21	Dec. 26	d, e f - through Oct. 8	5	15
Light Geese	Sep. 21	Dec. 26	d, e f - through Oct. 8	10	30

* The daily bag limit of seven (7) ducks and mergansers may include any combination of species with the following restrictions:

(b) no more than two (2) hen mallards;
(c) no more than one (1) pintail;
(d) no more than two (2) canvasbacks;
(e) no more than two (2) redheads; and,
(f) no more than two (2) scaup. No scaup shall be taken after December 15.

(g) Central Flyway Zones. The Central Flyway is divided into three (3) zones. Refer to the season dates for the zone in which you are hunting.

- ZONE C1 shall include Big Horn, Converse, Hot Springs, Natrona, Park and Washakie counties, and Fremont County excluding those portions south or west of the Continental Divide.

- ZONE C1A shall include Goshen and Platte counties.

- ZONE C2 shall include Albany, Campbell, Crook, Johnson, Laramie, Niobrara, Sheridan and Weston counties; and that portion of Carbon County east of the Continental Divide.

(h) Central Flyway

CENTRAL FLYWAY					
Species and Hunt Areas	**Season Dates**		**Closed Areas Section 3 Subsections**	**Bag Limit**	
	Opens	**Closes**		**Daily**	**Possession**
Light Geese	Sep. 28	Dec. 29	b a - after Nov. 15 c - after Nov. 14	20	60
	Feb. 5	Feb. 16	a, b, c	20	60
CENTRAL FLYWAY - ZONE C1					
Ducks and Mergansers	Sep. 28	Oct. 13		6**	18**
	Nov. 2	Jan. 21	c - after Nov. 14	6**	18**
Coots	Sep. 28	Oct. 13		15	45
	Nov. 2	Jan. 21	c - after Nov. 14	15	45
Dark Geese	Sep. 28	Oct. 6		5	15
	Nov. 2	Nov. 24	c - after Nov. 14	5	15
	Dec. 6	Feb. 16	c	5	15

CENTRAL FLYWAY – ZONE C1A					
Species and Hunt Areas	**Season Dates**		**Closed Areas Section 3 Subsections**	**Bag Limit**	
	Opens	**Closes**		**Daily**	**Possession**
Ducks and Mergansers	Sep. 28	Oct. 13	b	6**	18**
	Nov. 2	Jan. 21	b a - after Nov. 15	6**	18**
Coots	Sep. 28	Oct. 13	b	15	45
	Nov. 2	Jan. 21	b a - after Nov. 15	15	45
Dark Geese*	Sep. 28	Oct. 9	b	2	6
	Nov. 16	Feb. 16	a, b	5	15
CENTRAL FLYWAY - ZONE C2					
Ducks and Mergansers	Sep. 21	Dec. 1		6**	18**

	Dec. 14	Jan. 7		6**	18**
Coots	Sep. 21	Dec. 1		15	45
	Dec. 14	Jan. 7		15	45
Dark Geese	Sep. 21	Dec. 1		5	15
	Dec. 14	Jan. 15		5	15

*For Bump-Sullivan Managed Goose Hunt information, see Section 6.
**The daily bag limit of six (6) ducks and mergansers may include any combination of species with the following restrictions:

- no more than five (5) mallards of which not more than two (2) shall be hens;
- no more than one (1) pintail;
- no more than three (3) wood ducks;
- no more than two (2) canvasbacks;
- no more than two (2) redheads; and,
- no more than one (1) scaup.
- two (2) blue-winged teal may be taken in addition to the regular limit of six (6) ducks during the following dates:
  - Zone C1 and C1A: September 28– October 13
  - Zone C2: September 21– October 6

(j) Special Hunting Days for Youths, Veterans and Active Military Personnel (including members of the National Guard and Reserves on active duty). In the Pacific Flyway and in Zone C2 of the Central Flyway, the special hunting days for youths, veterans and active military personnel shall be September 14-15, 2024. In Zone C1 and C1A of the Central Flyway, the special hunting days for youths, veterans and active military personnel shall be September 21-22, 2024. Only qualifying persons may take ducks, mergansers, coots and geese on these special hunting days, subject to the following conditions:

(i) All youth hunters shall be seventeen (17) years of age or younger and shall be accompanied in the field by an adult at least eighteen (18) years of age.

(ii) No more than four (4) youths shall be accompanied by any one (1) adult.

(iii) The accompanying adult shall not take ducks, coots, mergansers or geese unless they also qualify as a veteran or active military personnel. However the accompanying adult may participate in other open seasons.

(iv) All license and stamp requirements, daily bag limits, species and sex restrictions, shooting hours and other regulations that apply to the regular duck and goose seasons, as defined for each flyway, shall apply during the special hunting days for youths, veterans and active military personnel. Exceptions: The additional blue-winged teal limit does not apply on these special hunting days. In Zone C1A, the daily bag limit for dark geese shall be four (4) on the special hunting days for youths, veterans and active military personnel.

(v) All veterans and active military personnel participating in the special hunting days shall be in possession of documentation confirming they are a veteran or active military personnel while hunting in the field.

(vi) The areas described in Section 3 (b), (d), (e) and (f) shall be closed to hunting during the special hunting days for youths, veterans and active military personnel.

Section 3. Description of Closed Areas. The areas described in this Section shall be closed for the species and dates specified in the tables in Sections 2, 5 and 7.

(a) Goshen County

(i) Hawk Springs Reservoir. Beginning where the east fence of the Union Pacific Railroad right-of-way meets the south fence enclosing Hawk Springs Reservoir; due east along said fence to Goshen County Road 51; northerly along said road to the access road to the northeast dam of the reservoir; southwesterly along said road to the northeast dam and the fence enclosing the reservoir; northwesterly along said fence to the second gate; southwesterly from said gate to the northwest corner of the fence enclosing the reservoir; southerly along said fence to the beginning point.

(ii) Springer Reservoir. Beginning on U.S. Highway 85 at the George Marlatt farmhouse; westerly along the fence between the farm land and the pasture land to the west end of the west pump lake and Bump-Sullivan Ditch; southerly along said ditch to the high-water mark of Springer Reservoir; westerly then southerly along the high-water mark to the Wyoming Game and Fish Department's Springer Wildlife Habitat Management Area (WHMA); westerly then southerly along the Springer WHMA boundary to Parking Area 3; southeasterly along the reservoir access road to the Wyoming Game and Fish Department buildings; due south from said buildings across the Whispering Wings LLC property to the Fullmer Family Trust pasture fence; westerly along said fence to Goshen County Road 37; southerly along said road to Goshen County Road 42; easterly along said road to U.S. Highway 85; northerly along said highway to the Springer WHMA boundary at the Casey L. Hunter property; westerly then northerly along said boundary to the fence separating the Joe and Judith Hunter Living Trust property and the

George Marlatt & Son, Inc. property; easterly then southerly then easterly along said fence to U.S. Highway 85; northerly along said highway to the George Marlatt farmhouse.

(iii) Pond No. 1 Table Mountain Wildlife Habitat Management Area. Pond No. l and adjacent lands as marked by colored signs and posts.

(iv) Miller Lake (Glomill Reservoir). Miller Lake and all lands within three hundred (300) yards of the normal high water line.

(v) North Platte River. That portion of the North Platte River and all lands within three hundred (300) yards of each bank of said river beginning one-quarter (1/4) mile downstream of the western-most river crossing with Wyoming Highway 157 downstream to the eastern-most river crossing with Wyoming Highway 157.

(b) Platte County

(i) Festo Lake. Festo Lake and all lands within three hundred (300) yards of the normal high water line.

(ii) Wheatland Reservoir No. 1. Wheatland Reservoir No. 1 and all lands within three hundred (300) yards of the normal high water line.

(c) Fremont County

(i) Ocean Lake. The waters and lands within one-half (1/2) mile of the aeration system on the north side of Ocean Lake shall be closed to migratory game bird hunting beginning November 15 through March 10 of the following year.

(d) Sweetwater County

(i) Eden Reservoir. Eden Reservoir and all lands within three hundred (300) yards of the normal high water line.

(e) Lincoln County

(i) Palisades Reservoir. Beginning at the junction of the McCoy Creek Road and U.S. Highway 89; northerly on U.S. Highway 89 for one and six-tenths (1.6) miles to the Palisades Reservoir high water line; westerly along said high water line to the Wyoming - Idaho state line; south along said state line to the McCoy Creek Road; southeasterly along the McCoy Creek Road to U.S. Highway 89.

(f) Teton County

(i) South Park Wildlife Habitat Management Area Northwest Reservoirs. The three reservoirs (Snowy Egret, Sandhill Crane and Blue Heron) in the northwest corner of the property and the surrounding lands, beginning at the South Park Wildlife Habitat

Management Area's northwest property corner; east along the fenced northern property boundary to Flat Creek; south along the western edge of Flat Creek to the bridge and South Park Feedground Road; southwest along South Park Feedground Road to the intersection with the maintenance road; northwest along the maintenance road to the end of the maintenance road; due west to the fenced property line; north along the fence to the northwest corner of the property.

Section 4. Shooting Hours.

(a) Except as provided in Section 4 (b) and Section 8, shooting hours for hunting all migratory game birds shall be from one-half (1/2) hour before sunrise until sunset.

(b) From November 16 through the close of the dark goose season, daily shooting hours for dark geese shall end at 1:00 p.m. on Mondays, Tuesdays, Thursdays and Fridays within the following areas: Goshen County north of Wyoming Highway 313 on the west side of U.S. Highway 85, and north of County Road 32 on the east side of U.S. Highway 85.

Section 5. Falconry Seasons. Migratory game birds may be taken by the use of trained raptors in the possession of properly licensed falconers during the regular hunting season set forth in Section 2 and extended falconry seasons in accordance with the limitations in this Section, Section 2, Section 3 and Section 4. Licensed adult falconers are allowed to hunt by falconry methods during the special hunting days for youths, veterans and active military personnel set forth in Section 2 (j).

(a) Falconry Bag and Possession Limits. The daily bag limit shall not exceed three (3) migratory game birds in the aggregate nor shall the possession limit exceed nine (9) migratory game birds in the aggregate for falconry during the regular hunting season or extended falconry seasons. The daily bag and possession limits, singly or in the aggregate, may include any species and sex of ducks, geese, coots, mergansers, rail, snipe, mourning doves and sandhill crane when seasons for these species are open. No more than one (1) sandhill crane shall be taken under a limited quota sandhill crane permit. The falconry bag and possession limits are not in addition to the bag and possession limits listed in Section 2.

EXTENDED FALCONRY SEASONS					
Species and Hunt Areas	**Extended Season Dates**		**Closed Areas Section 3 Subsections**	**AGGREGATE Bag Limit**	
	Opens	**Closes**		**Daily**	**Possession**
Mourning Doves - Statewide	Nov. 30	Dec. 16	b, d, e a – after Nov. 15 c – after Nov. 14	3	9
Sora Rail and Virginia Rail – Statewide	Nov. 10	Dec. 16			
ZONE C1 and C1A Central Flyway - Ducks, Mergansers and Coots	Oct. 14	Oct. 21	b	3	9

EXTENDED FALCONRY SEASONS					
Species and Hunt Areas	**Extended Season Dates**		**Closed Areas Section 3 Subsections**	**AGGREGATE Bag Limit**	
	Opens	**Closes**		**Daily**	**Possession**
ZONE C2 Central Flyway - Ducks, Mergansers and Coots	Sep. 16	Sep. 20			
	Dec. 2	Dec. 4			

Section 6. Bump-Sullivan Managed Goose Hunt. Nineteen (19) numbered pits/blinds shall be available each day during the dark goose hunting season and shall be occupied on a first-come, first-served basis within the Bump-Sullivan Managed Goose Hunt Area in Goshen County. From November 16, 2024 through February 16, 2025, hunting during dark goose shooting hours shall only be allowed from pits/blinds or within fifty (50) yards of the pits/blinds.

(a) Selection of pits/blinds. Hunters and hunting parties shall occupy pits/blinds by parking one vehicle directly in front of the numbered post that is marked with the corresponding number of the pit/blind. Vehicles shall not be parked overnight to reserve a pit/blind. Vehicles shall also not be parked in front of a numbered post of a pit/blind other than the one the hunting party is occupying. Hunters shall not change pits/blinds except by returning to the parking area and moving their vehicle to the numbered post corresponding to the new pit/blind.

(b) Access to pits/blinds. Hunters shall only park in established parking areas. No more than two (2) vehicles per pit/blind shall be allowed in the parking lots. No person shall drive a vehicle beyond the established parking areas during the goose and duck hunting seasons, except for Department administrative access. Hunters may only use non-motorized methods to transport decoys and other gear to and from the pit/blind.

(c) Commercial operations. No person shall conduct a commercially guided or outfitted hunt on the Bump-Sullivan Managed Goose Hunt Area.

(d) Bump-Sullivan Managed Goose Hunt Area boundary description. The Bump-Sullivan Managed Goose Hunt Area shall include the portion of the Springer/Bump Sullivan Wildlife Habitat Management Area (WHMA) located west of Goshen County Road 37 (Bump-Sullivan Reservoir and adjacent Commission owned lands); the portion of the Springer/Bump Sullivan WHMA located south of Goshen County Road 42; and the portion of the Springer/Bump Sullivan WHMA located between County Road 37 and the closed area boundary.

Section 7. Light Goose Conservation Order

(a) Licensing, Permitting and Reporting Requirements.

(i) Wyoming Game Bird License and Conservation Stamp. Each person who takes or attempts to take any light geese under the authority of this regulation shall have in

possession a valid Wyoming game bird license and a valid Wyoming conservation stamp (except as otherwise exempted by State statute).

(ii) Conservation Order Special Management Permit. A Conservation Order Special Management Permit shall be in possession of any person participating in the light goose conservation order. The Conservation Order Special Management Permit shall be validated by signing the person's name in ink across the face of the permit. Conservation Order Special Management Permits may be purchased through the Department's ELS.

(iii) Reporting Requirements. Any person who obtains a Conservation Order Special Management Permit will be emailed an online harvest survey. Permit holders are requested to accurately complete the survey at that time.

(iv) Hunters are not required to possess a Federal Migratory Bird Hunting and Conservation Stamp (duck stamp) or Harvest Information Program (HIP) Permit in order to participate in the light goose conservation order11-25

(b) Conservation Order Regulations.

(i) Shotguns shall be the only weapons that can be used to take light geese and are not required to be plugged to limit shell capacity to three (3). Shotguns larger than ten (10) gauge shall not be legal for the taking of light geese during the light goose conservation order.

(ii) Recorded or electronically-amplified calls may be used for the taking of light geese during the light goose conservation order.

(iii) Evidence of Species. One fully feathered wing or the feathered head shall remain naturally attached to the carcass as a means of identification of all light geese in the field and while the birds are being transported.

(iv) Nontoxic Shot Restrictions. No person shall take light geese while possessing shot shells loaded with shot other than nontoxic shot.

(v) The Central Flyway portion of Wyoming, excluding the closed areas listed in Section 3, is open during the light goose conservation order.

(vi) Light Goose Conservation Order Hunting Seasons.

LIGHT GOOSE CONSERVATION ORDER, CENTRAL FLYWAY					
Species and Hunt Areas	**Conservation Order Dates**		**Closed Areas Section 3 Subsections**	**Bag Limit**	
	Opens	**Closes**		**Daily**	**Possession**
Light Geese	Feb. 17	Apr. 30	a(ii), a(iii), b, c	50	Unrestricted

(c) Bump-Sullivan Area. Those areas within the boundary of the Bump-Sullivan Managed Goose Hunt Area, including Bump-Sullivan Reservoir, shall be open to the taking of light geese during the light goose conservation order. Light goose conservation order participants are not required to hunt from a numbered Department pit/blind during the light goose conservation order. Participants who choose to hunt from a numbered Department pit/blind shall follow the rules in Section 6 of this regulation. Section 6 (c) shall apply to persons hunting light geese anywhere within the Bump-Sullivan Managed Goose Hunt Area.

Section 8. Light Goose Conservation Order Shooting Hours. Shooting hours for taking light geese during the light goose conservation order shall be from one-half (1/2) hour before sunrise until one-half (1/2) hour after sunset.

WYOMING GAME AND FISH COMMISSION

By:

Richard Ladwig, President
Dated: April 16, 2024

Appendix 4: References.

Allen, S.E., Kunkel, M.R., and Nemeth, N.M. 2023. Using Opportunistic Samples to Monitor West Nile Virus Infection Status in Greater Sage-grouse (Centrocercus urophasianus) in Wyoming, USA (2020-22). Journal of Wildlife Diseases 59:774-779.

Ambrose, S. et al. 2021. Sagebrush soundscapes and the effects of gas-field sounds on Greater sage-grouse. Western Birds: The Quarterly Journal of Western Field Ornithologists 52:23-46.

Anderson, A., K. Gebhardt, W. T. Cross, and S. A. Shwiff. 2013. Spillover benefits of wildlife management to support pheasant populations. Wildl. Soc. Bull. 37:278-280.

Anonymous. 1948. A report on Wyoming sage grouse. Wyoming Wildlife 14:4-19.

Applegate, D. H. and N. Owens. 2014. Oil and gas impacts on Wyoming's sagegrouse: summarizing the past and predicting the foreseeable future. Human-Wildlife Interactions 8:284-290.

Barlow, N.L., C. Kirol, K. Doherty and B. Fedy. 2020. Evaluation of the Umbrella Species Concept at Fine Spatial Scales. Journal of Wildlife Management 84:237-248.

Baskett, T. S., editor. 1993. Ecology and Management of the Mourning Dove. Stackpole Books, Harrisburg, Pennsylvania, USA.

Bass, J. 2000. Shades of gray. Wyoming Wildlife 64:6-11.

Bates, J.D., E. Rhodes and K. Davies. 2011. The Impacts of Fire on Sage-grouse Habitat and Diet Resources. Natural Resources and Environmental Issues 17:111-127.

Beck, J., J. Connelly and K. Reese. 2009. Recovery of Greater Sage-Grouse Habitat Features in Wyoming Big Sagebrush following Prescribed Fire. Restoration Ecology 17:393-403.

Beck, J. L., J. G. Klein, J. Wright, and K. P. Wolfley. 2011. Potential and pitfalls of prescribed burning big sagebrush habitat to enhance nesting and brood-rearing habitats for Greater Sage Grouse. Natural Resources & Environmental Issues 17:39-44.

Beck, J. L., J. W. Connelly, and C. L. Wambolt. 2012. Consequences of treating Wyoming big sagebrush to enhance wildlife habitats. Rangeland Ecology & Management 65:444-455.

Beck, Jeffrey. 2019. Columbian sharp-tailed grouse genetics, habitat and demographics. WGFD permitted study 33-1098.

Beck, Jeffrey. 2019. Sage-grouse response to gas development project area. WGFD permitted study 33-1209.

Beck, Jeffrey. 2019. Sage-grouse response to sagebrush habitat treatments and diet. WGFD permitted study 33-801.

Beck, J.L. et al. 2024. Free-roaming horses exceeding appropriate management levels affect multiple vital rates in greater sage-grouse. Journal of Wildlife Management 88:1-18.

Bedrosian, Bryan. 2019. Sage-grouse response to gravel pit. WGFD permitted study 33-1062.

Bell, T. 1952. Help the pheasant. Wyoming Wildlife 16:18-19.

Berry, J.D. and R. Eng. 1985. Interseasonal movements and fidelity to seasonal use areas by female sage grouse. Journal of Wildlife Management 49:237-240.

Bossenmaier, E.F. 1956. Game bird survey: Life history studies significant to chukar management in Wyoming. Wyoming Game and Fish Commission p12.

Boyce, M.S., D. Rothenmaier and J. Tate Jr. 1979. Multivariate analysis of habitat selection by sage grouse. Colorado-Wyoming Academy of Sciences. Journal 11: 93. Abstract only.

Boyce, M.S. 1981. Robust canonical correlation of sage grouse habitat. U.S. For. Serv. Gen. Tech. Rep. RM-87. p. 152-159.

Boyce, M.S. and G Johnson. 1990. Feeding trials with insects in the dieat of sage grouse chicks. Journal of Wildlife Management 54:89-91.

Braun, C.E. 1979. Migration routes of mourning doves west of the Continental Divide in the Central Management Unit: Migratory bird investigations. Colorado Division of Wildlife 7:94-97.

Braun, C. E., and K. Martin. 1993. White-tailed Ptarmigan *in* The Birds of North America, #68. Cornell Lab of Ornithology, Ithaca, USA.

Brennan, L. A. 1999. Northern Bobwhite *in* The Birds of North America, #397. Cornell Lab of Ornithology, Ithaca, USA.

Brown, D. 1994. Waterfowl and waterbird use of beaver-created wetlands in southeastern Wyoming. Thesis, University of Wyoming, Laramie, USA.

Buhler, M. L. 1998. Avian habitat ecology within the riparian corridor along the Snake River in Grand Teton National Park, Wyoming. Thesis, University of Wyoming, Laramie, USA.

Buhler, M.L and S.H. Anderson. 2001. Ruffed grouse (Bonasa umbellus) drumming log and habitat use in Grand Teton National Park, Wyoming. Western North American Naturalist; 61:236-240.

Bui, T.-V. D., J. M. Marzluff, and B. Bedrosian, 2010. Common raven activity in relation to land use in western Wyoming: implications for greater sage-grouse reproductive success. Condor 112:65-78.

Cade, B.S., D.R. Edmunds, and D.S. Ouren. 2022. Quantile regression estimates of animal population trends. Journal of Wildlife Management 86:1-19.

Cardinal, C.J. and T.A. Messmer. 2016. Ecology of greater sage-grouse populations inhabiting the northwestern Wyoming Basin. Human-Wildlife Interactions 10:188-204.

Carlisle, J.D., A. Chalfoun, K. Smith and J. Beck. 2018. Nontarget effects on songbirds from habitat manipulation for Greater Sage-Grouse: Implications for the umbrella species concept. Condor: Ornithological Applications 120:439-455.

Carlisle, J.D., et al. 2018. Identifying holes in the greater sage-grouse conservation umbrella. Journal of Wildlife Management 82:948-957.

Carlisle, J.D., and A.D. Chalfoun. 2020. The abundance of Greater Sage-Grouse as a proxy for the abundance of sagebrush-associated songbirds in Wyoming, USA. Avian Conservation and Ecology 15:1-13.

Carlisle, J.D. et al. 2024. Beyond overlap: considering habitat preference and fitness outcomes in the umbrella species concept. Animal Conservation 27:212-225.

Carroll, J. P. 1993. Gray Partridge *in* The Birds of North America, #58. Cornell Lab of Ornithology, Ithaca, USA.

Chelak, M.S. et al. Refurbishing used GPS transmitters improves performance for subsequent deployments on greater sage-grouse. Wildlife Society Bulletin 49:1-19.

Chong, G. W., W. Wetzel and M. Holloran. 2010. Greater sage-grouse of Grand Teton National Park: Where do they roam? Park Science 27:42-49.

Christensen, G. C. 1996. Chukar *in* The Birds of North America, #258. Cornell Lab of Ornithology, Ithaca, USA.

Christiansen, T.J. and L. Belton. 2017. Wyoming sage-grouse working groups: lessons learned. Human-Wildlife Interactions. 11:274-286.

Cisneros-Pineda, A., D. Aadland and J. Tshirhart. 2020. Impacts of cattle, hunting, and natural gas development in a rangeland ecosystem. Ecological Modelling 431.

Clark, L.F., H. Rahn and M. Martin. 1942. Seasonal and sexual dimorphic variations in the so-called “air sac” region of the sage grouse. Wyoming Game and Fish Department 2:13-27.

Colenso, B.E., M. Boyce and J. Tate Jr. 1980. Developing criteria for reclamation of sage grouse habitat on a surface coal mine in Northeastern Wyoming. Conference proceeding. P27-32.

Connelly, J. W., M. W. Gratson, and K. P. Reese. 1998. Sharp-tailed Grouse *in* The Birds of North America, #354. Cornell Lab of Ornithology, Ithaca, USA.

Conover, M. R., J. S. Borgo, R. E. Dritz, J. B. Dinkins, and D. K. Dahlgren. 2010. Greater sage-grouse select nest sites to avoid visual predators but not olfactory predators. Condor 112:331-336.

Cornell, Steffen. 2019. Sage-grouse nesting and brood rearing in relation to raven nests. WGFD permitted study 33-1054.

Corsi, R.M. 1973. Wyoming pheasant management. Western Association of State Game and Fish Commissioners. Proceedings 53:236-237.

Crawford, J. A. R. A. Olsen, N. E. West, J. C. Mosley, M. A. Schroeder, T. D. Whitson, R. F. Miller, M. A. Gregg, and C. S. Boyd. 2004. Ecology and management of sage-grouse and sage-grouse habitat. Journal of Range Management 57:2-19.

Cunningham, E.B. 1958. Game bird survey: Influence of variable diets and time of hatch on development and age determination of chukar partridge. Wyoming Game and Fish Department p108.

Dahlgren, D.K. et al. 2015. Greater Sage-Grouse and Range Management: Insights from a 25-Year Case Study in Utah and Wyoming. Rangeland Ecology and Management 68:375-382.

Dahlgren, David. 2018. Sage-grouse geophagy, winter habitat, and movements. WGFD permitted study 33-1084.

Dahlgren, David. 2019. Monitor and evaluate sage-grouse throughout transplant to North Dakota. WGFD permitted study 33-1101.

Dickson, J. G., editor. The Wild Turkey Biology and Management. Stackpole Books, Harrisburg, Pennsylvania, USA.

Diebert, P.A. and M. Boyce. 1997. Heritable resistance to malaria and the evolution of lek behaviour in sage grouse Centrocercus urophasianus. Wildlife Biology; 1997, Vol. 3.

Diggins, L. 1998. Nevada chukars trapped, released in state. Wyoming Wildlife 62:44.

Dinkins, J.B., M. R. Conover, C. P. Kirol, J. L. Beck. 2012. Greater sage-grouse select nest sites and brood sites away from avian predators. Auk (University of California Press) 129:600-610.

Dinkins, J.B et al. 2014. Greater Sage-Grouse (Centrocercus urophasianus) hen survival: effects of raptors, anthropogenic and landscape features, and hen behavior. Canadian Journal of Zoology 92:319-330.

Dinkins, J. B., M. R. Conover, C. P. Kirol, J. L. Beck and S. N. Frey. 2014. Greater Sage-grouse select habitat based on avian predators, landscape composition, and anthropogenic features. The Condor 115:629-642.

Dinkins, J. B., et al. 2016. Effects of common raven and coyote removal and temporal variation in climate on greater sage-grouse nesting success. Biological Conservation 202:50-58.

Dinkins, J. B. and J. Beck. 2019. Comparison of conservation policy benefits for an umbrella and related sagebrush-obligate species. Human-Wildlife Interactions 13:447-458.

Doherty, K. E., D. E. Naugle, B. L. Walker and J. Graham. 2008. Greater sage-grouse winter habitat selection and energy development. Journal of Wildlife Management 72:187-195.

Doherty, K. E., D. E. Naugle, and B. L. Walker. 2010. Greater sage-grouse nesting habitat: the importance of managing at multiple scales. Journal of Wildlife Management 74:1544-1553.

Doherty, K.E., J. Beck and D. Naugle. 2011. Comparing Ecological Site Descriptions to Habitat Characteristics Influencing Greater Sage-Grouse Nest Site Occurrence and Success. Rangeland Ecology & Management 64:344-351.

Doherty, K.E. et al. 2011. CHAPTER TWENTY-ONE: Energy Development and Conservation Tradeoffs. Studies in Avian Biology 39:505-516.

Donnelly, J.P. et al. 2017. Extending Conifer Removal and Landscape Protection Strategies from Sage-grouse to Songbirds, a Range-Wide Assessment. Rangeland Ecology and Management 70:95-105.

Downs, K. D. 1998. Common Snipe habitat, surveys and evaluation of the Breeding Bird Survey. Thesis, University of Wyoming, Laramie, USA.

Duchardt, C.J., D. Augustine and J. Beck. 2020. Anthropogenic and Natural Disturbance Differentially Affect Sagebrush Bird Habitat Use. Journal of Wildlife Management 84:1361-1372.

Duchardt, C.J. et al. 2023. Using neutral landscape models to evaluate the umbrella species concept in an ecotone. Landscape Ecology 38:1447-1462.

Dunn, P.O. and C. Braun. 1985. Natal dispersal and lek fidelity of sage grouse. The Auk: a quarterly journal of ornithology 102:621-627.

Dunn, P.O. and C. Braun. 1985. Summer habitat use by adult female and juvenile sage grouse. Journal of Wildlife Management 50:228-235.

Dwyer, J.F., R. Taylor, G. French. 2020. Failure of Utility Pole Perch Deterrents Modified During Installation. Journal of Raptor Research 54:172-176.

Dzialak, M. R., S. L. Webb, S. M. Harju, C. V. Olson, J. B. Winstead, and L. D. Hayden-Wing. 2013. Greater sage-grouse and severe winter conditions: Identifying habitat for conservation. Rangeland Ecology & Management 66:10-18.

Eaton, S. W. 1992. Wild Turkey *in* The Birds of North America, #22. Cornell Lab of Ornithology, Ithaca, USA.

Edmunds, D.R., C. Aldridge, M. O'Donnell and A. Monroe. 2018. Greater sage-grouse population trends across Wyoming. Journal of Wildlife Management 82:397-413.

Fedy, B. C., and K. E. Doherty. 2011. Population cycles are highly correlated over long time series and large spatial scales in two unrelated species: Greater Sage Grouse and cottontail rabbits. Oecologia 165:915-924.

Fedy, B. C., et al. 2012. Interseasonal movements of greater sage grouse, migratory behavior, and an assessment of the core regions concept in Wyoming. Journal of Wildlife Management 76:1062-1071.

Fedy, B. C., et al. 2014. Habitat prioritization across large landscapes, multiple seasons, and novel areas: An example using Greater Sage Grouse in Wyoming. Wildlife Monographs 190:1-39.

Fedy, B.C., M.S. O'Donnell and Z.H. Bowen. 2015. Large-scale control site selection for population monitoring: An example assessing sage-grouse trends. Wildlife Society Bulletin 39:700-712.

Fedy, Brad. 2019. Sage-grouse habitat. WGFD permitted study 33-1079.

Fremgen, A.L. et al. 2016. Male greater sage-grouse detectability on leks. Journal of Wildlife Management 80:266-274.

Fremgen, A.L. et al. 2017. Male greater sage-grouse movements among leks. Journal of Wildlife Management 81:498-508.

Fremgen-Tarantino, M.R. et al. 2020. Winter foraging ecology of Greater Sage-Grouse in a post-fire landscape. Journal of Arid Environments 178:pn.PAG.

Fremgen-Tarantino, M.R. et al. 2021. Assessing accuracy of GAP and LANDFIRE land cover datasets in winter habitats used by greater sage-grouse in Idaho and Wyoming, USA. Journal of Environmental Management 280:pN.PAG.

Gamo, R. and J. Beck. 2017. Erratum to: Effectiveness of Wyoming's Sage-grouse Core Areas: Influences on energy development and male lek attendance. Environmental Management 59:189-203.

Gamo, R. and J. Beck. 2017. Energy Disturbance and Productivity of Mule Deer Habitat in Sage-Grouse Core Areas. Rangeland Ecology and Management 70:576-583.

Gamo, R. and J. Beck. 2017. Erratum to: Effectiveness of Wyoming's Sage-grouse Core Areas: Influences on energy development and male lek attendance. Environmental Management 59:708-708.

Garber. C.S., B. Mutch and S. Platt. 1993. Observations of wintering Gyrfalcons (Falco rusticolus) huntint sage grouse (Centrocercus urophasianus) in Wyoming and Montana USA. Journal of Raptor Research 27:169-171.

Gelling, E.L., A.C. Pratt, and J.L. Beck. 2022. Linking microhabitat selection, range size, reproductive state, and behavioral state in greater sage-grouse. Wildlife Society Bulletin 46:1-18.

Giesen, K. M., and J. W. Connelly. 1993. Guidelines for management of Columbian Sharp-tailed Grouse habitats. Wild. Soc. Bull. 21:325-333.

Green, A. W., C. Aldridge and M. O'donnell. 2017. Investigating impacts of oil and gas development on greater sage-grouse. Journal of Wildlife Management 81:46-57.

Guidice, J. H., and J. T. Ratti. 2001. Ring-necked Pheasant *in* The Birds of North America, #572. Cornell Lab of Ornithology, Ithaca, USA.

Gustafson, R. 1959. Game bird survey: Range and distribution of Sharp-tailed grouse. Wyoming Game and Fish Commission unpublished report: 101-104.

Gustafson, R. 1960. GAME BIRD SURVEY.: INVESTIGATION INTO PHYSICAL DEVELOPMENT AND WING MOLT PROGRESSION IN MERRIAMS WILD TURKEY. Wyoming Game and Fish Commission 1960:73-89.

Hanna, D. 2004. Gray Partridge habitat use in north-central Wyoming. Thesis, University of Wyoming, Laramie, USA.

Hansen, C. P., J. J. Millspaugh, and M. A. Rumble. 2011. Occupancy modeling of ruffed grouse in the Black Hills National Forest. Journal of Wildlife Management 75:71-77.

Hansen, C. P., M. A. Rumble, and J. J. Millspaugh. 2011. Ruffed grouse selection of drumming sites in the Black Hills National Forest. Am. Midl. Nat 165:400-411.

Hansen, C.P. et al. 2016. Microsite selection and survival of greater sage-grouse nests in south-central Wyoming. 80:862-876.

Harju, H. J. 1974. An analysis of some aspects of the ecology of dusky grouse. Dissertation, University of Wyoming, Laramie, USA.

Harju, S. M. M. R. Dzialak, R. C. Taylor, L. D. Hayden-Wing, and J. B. Winstead. 2010. Thresholds and time-lags in effects of energy development on greater sage-grouse populations. Journal of Wildlife Management 74:437-448.

Harju, S. M., C. V. Olson, L. Foy-Martin, S. L. Webb, M. R. Dzialak, J. B. Winstead, and L. D. Hayden-Wing. 2013. Occurrence and success of greater sage-grouse broods in relation to insect-vegetation community gradients. Human-Wildlife Interactions 7:214-229.

Hayden-Wing, L.D. et al. 1985. Movement patterns and habitat affinities of a sage grouse population in northeastern Wyoming. Issues and Technology in the Management of Impacted Western Wildlife. p207-226.

Heinrichs, J.A., M. O'Donnell, C. Aldridge, S. Garman and C. Homer. 2019. Influences of potential oil and gas development and future climate on Sage-grouse declines and redistribution. Ecological Applications 29:p1.

Hengel, D. A. 1990. Habitat use, diet and reproduction of Merriam's Turkeys near Laramie Peak, Wyoming. Thesis, University of Wyoming, Laramie, USA.

Henning, J.D., J.L. Beck and C.J. Duchardt. 2021. Variation in sage-grouse habitat quality metrics across a gradient of feral horse use. Journal of Arid Environments 192:pN.PAG-N.PAG.

Henning, J.D. et al. 2023. Habitat selection and space use overlap between feral horses, pronghorn, and greater sage-grouse in cold arid steppe. Journal of Wildlife Management 87:1-17.

Hess, J. E. and J. L. Beck. 2012. Burning and mowing Wyoming big sagebrush: Do treated sites meet minimum guidelines for Greater Sage Grouse breeding habitats? Wildl. Soc. Bull. 36:85-93.

Hess, J. E. and J. L. Beck. 2012. Disturbance factors influencing greater sage-grouse lek abandonment in north-central Wyoming. Journal of Wildlife Management 75:816-824.

Hess, J. E. and J.L. Beck. 2014. Forb, insect and soil response to burning and mowing Wyoming big sagebrush in Greater Sage Grouse breeding habitat. Environmental Management 53:813-822.

Holloran, M. J. 1999. Sage grouse seasonal habitat use near Casper, Wyoming. Thesis, University of Wyoming, Laramie, USA.

Holloran, M.J. and S. Anderson. Greater sage-grouse population response to natural gas development in western Wyoming: Are regional populations affected by relatively localized disturbances? North American Wildlife and Natural Resources Conference. Transactions; 70:160-170.

Holloran, M. J., and S. H. Anderson. 2003. Direct identification of northern sage-grouse nest predators using remote sensing cameras. *Canadian Field-Naturalist* 117:308-310.

Holloran, M. J., and S. H. Anderson. 2005. Spatial distribution of greater sage-grouse nests in relatively contiguous sagebrush habitats. Condor 107:742-752.

Holloran, M. J., B. J. Heath, A. G. Lyon, S. J. Slater, J. L. Kuipers, and S. H. Anderson. 2005. Greater sage-grouse nesting habitat selection and success in Wyoming. Journal of Wildlife Management 69:638-649.

Holloran, M. J., R. C. Kaiser and W. A. Hubert. 2010. Yearling greater sage-grouse response to energy development in Wyoming. Journal of Wildlife Management 74:65–72.

Holloran, M.J., B.C. Fedy, and J. Dahlke. 2015. Winter habitat use of greater sage-grouse relative to activity levels at natural gas well pads. Journal of Wildlife Management 79:630-640.

Johnson, D.A. 1957. Game bird survey: Evaluation of proposed chukar partridge restoration sites. Wyoming Game and Fish Commission.

Johnson, D.A. 1958. Game bird survey: Food habits study of sage grouse as related to agricultural crop damage. Wyoming Game and Fish Commission unpublished report 1958:65-69.

June, J. W. 1961. Game bird survey: sage grouse population trend study. Wyoming Game and Fish Commission unpublished report 1961:94-161.

June, J. W. 1967. Sage, Blue and Ruffed Grouse sexing and aging characteristics. Wyoming Game and Fish Commission.

Kehmeier, Jon. 2019. Wind energy development impacts on sage-grouse. WGFD permitted study 33-752.

Kerley, L. 1994. Bird responses to habitat fragmentation caused by sagebrush management in a Wyoming sagebrush steppe ecosystem. Dissertation, University of Wyoming, Laramie, USA.

Killough, T. 1976. Restoring healthy pheasant populations – can we afford the cost? Wyoming Wildlife 40:22-24.

Kirol, C. 2012. Quantifying habitat importance for Greater Sage Grouse population persistence in an energy development landscape. Thesis, University of Wyoming, Laramie, USA.

Kirol, C. P., J. L. Beck, J. B. Dinkins, M. R. Conover. 2012. Microhabitat selection for nesting and brood-rearing by the Greater Sage Grouse in xeric big sagebrush. Condor 114:75-89.

Kirol, C. P., A. L. Sutphin, L. Bond, M. R. Fuller and T. L. Maechtle. 2015. Mitigation effectiveness for improving nesting success of greater sage-grouse influenced by energy development. Wildlife Biology 21:98-109.

Kirol, C.P. et al. 2015. Identifying Greater Sage-Grouse source and sink habitats for conservation planning in an energy development landscape. Ecological Applications 25:968-990.

Kirol, C. P. et al. 2020. Greater Sage-Grouse Response to the Physical Footprint of Energy Development. Journal of Wildlife Management 84:989-1001.

Kirol, C. P., D. Kesler, B. Walker, and B. Fedy. 2020. Coupling tracking technologies to maximize efficiency in avian research. Wildlife Society Bulletin 44:406-415.

Klott, J. H. 1987. Use of habitat by sympatrically occurring sage grouse and sharp-tailed grouse with broods. Thesis, University of Wyoming, Laramie, USA.

Klott, J. H. and F. Lindzey. Comparison of sage and sharp-tailed grouse leks in south central Wyoming. Great Basin Naturalist 49:275-278.

Kuipers, J. 2004. Grazing systems and linear corridor influence on Greater Sage Grouse habitat selection and productivity. Thesis, University of Wyoming, Laramie, USA.

Lawrence, J. M. 1994. Impacts of petroleum oil and produced waters on birds in freshwater wetlands.

LeBeau, Chad. 2019. Sage-grouse avoidance distances in wind energy developed landscape. WGFD permitted study 33-1171.

LeBeau, C. W., J. L. Beck, G. D. Johnson, and M. J. Holloran. 2014. Short-term impacts of wind energy development on greater sage-grouse fitness. Journal of Wildlife Management 78:522-530.

LeBeau, C.W., G.D. Johnson and M.J. Holloran. 2017 Greater sage-grouse habitat selection, survival, and wind energy infrastructure. Journal of Wildlife Management 81:690-711.

Lindzey, F. G. and J. Klott. 1990. Brood habitats of sympatric sage and Columbian sharp-tailed grouse in Wyoming. Journal of Wildlife Management 54:84-88.

Luce, R. 1976. Diagnosing pheasant population declines. Wyoming Wildlife 40:18-21

Lyon, A. 2000. Potential effects of natural gas development on sage grouse near Pinedale, Wyoming. Thesis, University of Wyoming, Laramie, USA.

Lyon, A. G and S. Anderson. 2003. Potential gas development impacts on sage grouse nest initiation and movement. Wildlife Society Bulletin. 31:486-491.

Madson, C. 2001. Surviving summer. Wyoming Wildlife 65:14-21.

Malmberg, J.L., M. Miller, J. Jennings-Gaines and S.E. Allen. 2023. Mortality in Wild Turkeys (Meleagris gallopavo) Associated with Natural Infection with H5N1 Highly Pathogenic Avian Influenza Virus (HPAIV) Subclade 2.3.4.4. Journal of Wildlife Diseases 59: 767-773.

Mason, C. G. 1993. Waterbird use and productivity at Table Mountain Wildlife Habitat Management Unit. Thesis, University of Wyoming, Laramie, USA.

McDowell, K. and W. Higby. 1950. Upland Game Bird Habitat Development: 40-D-1, 40-D-3 Springer Area, and 40-D-2 Shoshone River Area. Wyoming Game and Fish Commission unpublished report. p12.

McKinstrey, M. C. 2003. Altering succession and improving habitat at created wetlands in Wyoming. Dissertation, University of Wyoming, Laramie, USA.

Mezquida, E.T., S. J. Slater, and C. W. Benkman. 2006. Sage-grouse and indirect interactions: potential implications of coyote control on Sage-grouse populations. Condor 108:747-759.

Monroe, A. P., D. Edmunds, and C. Aldridge. 2016. Effects of lek count protocols on greater sage-grouse population trend estimates. Journal of Wildlife Management 80:667-678.

Morkill, A. E. 1990. Effectiveness of markers in reducing Sandhill Crane collision with powerlines. Thesis, University of Wyoming, Laramie, USA.

Morrison, J. 2008. Robot to the rescue. National Wildlife 46:31-35.

Murphy, Melanie. 2018. Restoration efforts for sage-grouse after energy development. WGFD permitted study 33-899.

Neimuth, N.D. and M. Boyce. 1995. Spatial and temporal patterns of predation of simulated sage grouse nests at high and low densities: an experimental study. Canadian Journal of Zoology 73:819-825.

Nijhuis, M. 2010. Balance of power. Audubon 112:74-80.

O'Donnell, M. S, et al. 2019. Designing multi-scale hierarchical monitoring frameworks for wildlife to support management: a sage-grouse case study. Ecosphere 10: p1.

Oedekoven, O. O. 1985. Columbian Sharp-tailed Grouse population distribution and habitat use in south central Wyoming. Thesis, University of Wyoming, Laramie, USA.

Oedekoven, O. O. 1993. Brood-rearing habitat selection of Columbian sharp-tailed grouse in southcentral Wyoming. Transactions/Proceedings of the 1st Joint Meeting: 20th Prairie Grouse Technical Council Meeting and 18th Western States Sage/Columbian Sharp-Tailed Grouse Workshop, Fort Collins, Colorado: p26-28

Olsen, R.A., J.K. Gores, D.T. Booth and G.E. Schuman. 2000. Suitability of shrub establishment on Wyoming mined lands reclaimed for wildlife habitat. Western North America Naturalist 60:77-92.

Olson, Chad. 2019. Sage-grouse habitat, seasonal movements, and use of enhanced areas. WGFD permitted study 33-649.

Orabona, A., C. Rudd, N. Bjornlie, Z. Walker, S. Patla, and B. Oakleaf. . 2016. Atlas of Birds, Mammals, Amphibians, and Reptiles in Wyoming. Wyoming Game and Fish Department Nongame Program, Lander. 233pp.

Orning, E. K. and J. Young. 2017. Coyote removal: can the short-term application of a controversial management tool improve female greater sage-grouse survival or nest success? Wildlife Biology 2017(4).

Paothong, N. 2012. Prairie Dancers. Birdwatching 26:26-31.

Patricelli, Gail. 2018. Sage-grouse breeding, acoustics, and potential impacts by human activities. WGFD permitted study 33-405.

Patterson, R.L. 1949. Sage grouse along the Oregon trail. Wyoming Wildlilfe 4:34-37.

Patterson, R.L. 1950. Sage grouse populations and land utilization patterns in the Mountain West. Wyoming Wildlife 4:29-35.

Patterson, R.L. 1950. The sage grouse in the upper Green River Basin [Wyoming]. p173-179.

Patterson, R.L., E. Putnam and H. Sanderson. 1950. Trapping sage grouse in Wyoming. Wyoming Wildlife 4:

Patterson, R.L. 1952. The sage grouse in Wyoming. Sage Books, Denver, Colorado. xxiv + 341.

Pavlacky, D.C., Jr. and S.H. Anderson. 2004. Comparative habitat use in a juniper woodland bird community. Western North American Naturalist 64:376-384.

Peebles, L.W. and M.R. Conover. 2016. Effectiveness of the toxicant DRC-1339 in reducing populations of common ravens in Wyoming. Wildlife Society Bulletin 40:281-287.

Peebles, L.W., M.R. Conover and J.B. Dinkins. 2017. Adult sage-grouse numbers rise following raven removal or an increase in precipitation. Wildlife Society Bulletin 41:471-478.

Post, G. 1951. Effects of toxaphene and chlordane on certain game birds. Journal of Wildlife Management; 15:381-386.

Post, G. 1952. The effects of Aldrin on birds. Journal of Wildlife Management 16:492-497.

Pratt, A.C and J.L. Beck. 2019. Greater sage-grouse response to bentonite mining. Journal of Wildlife Management 83:866-878.

Reed, T. 1996. Sharp tails. Wyoming Wildlife 60:6-11.

Rhodes, E.C. et al. 2010. Fire Effects on Cover and Dietary Resources of Sage-Grouse Habitat. Journal of Wildlife Management 74:755-764.

Ripe, D. 1998. White bark. Wyoming Wildlife 62:18-26.

Row, J. R., S. Oyler-McCance and B. Fedy. 2016. Differential influences of local subpopulations on regional diversity and differentiation for greater sage-grouse (Centrocercus urophasianus). Molecular Ecology 25:4424-4437.

Row, J.R. and B. Fedy. 2017. Spatial and temporal variation in the range-wide cyclic dynamics of greater sage-grouse. Oecologia 185:687-698.

Ruffed Grouse Selection of Drumming Sites in the Black Hills National Forest. 2011. American Midland Naturalist 165:400-411.

Rusch, D. A., S. Destefano, M. C. Reynolds, and D. Lauten. 2000. Ruffed Grouse *in* The Birds of North America, #515. Cornell Lab of Ornithology, Ithaca, USA.

Schmidt, Brian. 2018. Ruffed and dusky grouse digestion of toxic plant materials. WGFD permitted study 33-1085.

Schrag, A., S. Konrad, S. Miller, B. Walker and S. Forrest. 2011. Climate-change impacts on sagebrush habitat and West Nile virus transmission risk and conservation implications for greater sage-grouse. GeoJournal 76:561-575.

Schreiber, L.A. et al. 2016. Greater sage-grouse apparent nest productivity and chick survival in Carbon County, Wyoming. Wildlife Biology 22:37-44.

Schroeder, M. A., J. R. Young, and C. E. Braun. 1999. Sage Grouse *in* The Birds of North America, #425. Cornell Lab of Ornithology, Ithaca, USA.

Schroeder, M. A., and L. A. Robb. 1993. Greater Prairie Chicken *in* The Birds of North America, #36. Cornell Lab of Ornithology, Ithaca, USA.

Slater, S. 2003. Sage grouse use of different-aged burns and the effects of coyote control in southwestern Wyoming. Thesis, University of Wyoming, Laramie, USA.

Slater, S.J. and J. Smith. 2010. Effectiveness of Raptor Perch Deterrents on an Electrical Transmission Line in Southwestern Wyoming. Journal of Wildlife Management 74:1080-1088.

Smith, K.T., J.L. Beck and A.C. Pratt. 2016. Does Wyoming's Core Area Policy Protect Winter Habitats for Greater Sage-Grouse? Environmental Management 58:585-596.

Smith K. T., J. Forbey and J. Beck. 2018. Effects of Mowing and Tebuthiuron on the Nutritional Quality of Wyoming Big Sagebrush. Rangeland Ecology and Management 71:417-423.

Smith, K.T and J.L. Beck. 2018. Sagebrush treatments influence annual population change for greater sage-grouse. Restoration Ecology 26:497-505.

Smith, K. T., J. L. Beck and C. P. Kirol. 2018. Reproductive state leads to intraspecific habitat partitioning and survival differences in greater sage-grouse: implications for conservation. Wildlife Research 45:119-131.

Smith, K. T., A. C. Pratt, J. R. LeVan, A. M. Rhea and J. L. Beck. 2019. Reconstructing Greater sage-grouse chick diets: Diet selection, body condition, and food availability at brood-rearing sites. The Condor 121:1-12.

Smith, K.T., J. Dinkins and J. Beck. 2019. Approaches to delineate greater sage-grouse winter concentration areas. Journal of Wildlife Management 83:1495-1507.

Smith, K.T. et al. 2023. Response of greater sage-grouse to sagebrush reduction treatments in Wyoming big sagebrush. Wildlife Monographs 212:1-51.

Smith, K.T. et al. 2024. Survival of juvenile greater sage-grouse in Wyoming. Wildlife Biology 2024:1-8

Smith, K.T. et al. 2024. Trends in greater sage-grouse lek counts relative to existing wind energy development in Wyoming. Wildlife Society Bulletin 48:1-37.

Stoellinger, T. and D. Taylor. 2017. A report on the economic impact to Wyoming's economy from a potential listing of the sage grouse. Wyoming Law Review 17:79-115.

Svingen, D. N. 1991. Waterfowl production on grass-sage stock ponds in Wyoming. Thesis, University of Wyoming, Laramie, USA.

Tate, J., M. Boyce and T. Smith. 1979. Response of sage grouse to artificially created display ground. U.S. For. Serv. Gen. Tech. Rep. RM-65. p. 459-463.

Taylor, J. D., D. Holt, E. Orning, and J. Young. 2017. Greater sage-grouse nest survival in Northwestern Wyoming. Journal of Wildlife Management 81:1219 - 1227.

Taylor, K. 2004. Production and wetland selection of mallards on created wetlands in northeast Wyoming. Thesis, University of Wyoming, Laramie, USA.

Thompson, K.M., M. Holloran, S. Slater, J. Kuipers and S. Anderson. 2006. Early brood-rearing habitat use and productivity of greater sage-grouse in Wyoming. Western North American Naturalist 66:332-342.

Van Lanen, N.J. et al. 2017. Evaluating efficacy of fence markers in reducing greater sage-grouse collisions with fencing. Biological Conservation :213:70-83.

Vetter, William. 2018. Sage-grouse reaction to mine disturbance. WGFD permitted study 33-1116.

Wachob, D. G. 1997. Effects of the Conservation Reserve Program on wildlife in southeastern Wyoming. Dissertation, University of Wyoming, Laramie, USA.

Walker, B. L., D. Naugle, K. Doherty, and T. Cornish. 2004. From the Field: Outbreak of West Nile virus in greater sage-grouse and guidelines for monitoring, handling, and submitting dead birds. Wildlife Society Bulletin 32:1000-1006.

Walker, B. L., D. Naugle, and K. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. Journal of Wildlife Management; 71:2644-2654.

Wanner, C.P., A. Pratt, and J. Beck. 2024. Wintering Greater Sage-Grouse Preferentially Select Shrub Microhabitat Characteristics Within the Home Range. Rangeland Ecology and Management 94:1-6.

Wanner, C.P. et al. 2025. Correction to: Novel environmental variables help explain winter weather effects on activity and habitat selection of greater sage-grouse along the border of Colorado and Wyoming, USA. International Journal of Biometeorology 69:469-485.

Webb, D.R. 1993. Sage grouse nest site characteristics and microclimates on grazed lands in Wyoming. Transactions/Proceedings of the 1st Joint Meeting: 20th Prairie Grouse Technical Council Meeting and 18th Western States Sage/Columbian Sharp-Tailed Grouse Workshop, Fort Collins, Colorado, 26-28 July 1993. Clait E. Braun, compiler p. 25. Abstract only.

Wells, G.R. 1953. Wyoming chukar partridge transplanting experiences, Proc. 32nd An. Conf. Western Assn. St. Game & Fish Comm., Glacier Nat. Park, Mont., June 15-17, 1952. 168-170.

Welch, B.L., J. Pederson, R. Rodriquez. 1988. Selection of big sagebrush by sage grouse. Great Basin Naturalist 48:274-279.

Windh, J. L., B. Stam and J. Scasta. 2019. Contemporary Livestock-Predator Themes Identified Through a Wyoming, USA Rancher Survey. Rangelands 41:94-101.

Zwickel, F. 1992. Blue Grouse *in* The Birds of North America, #15. Cornell Lab of Ornithology, Ithaca, USA.

FURBEARER JCR 1982-2023

INTRODUCTION

The following wildlife species are legally classified as furbearing animals in Wyoming: badger, beaver, bobcat, marten, mink, muskrat and weasel (ermine). A furbearer trapping license is required to trap or hunt these species, except a landowner may immediately kill any badger, beaver, bobcat, mink, muskrat or weasel causing damage to private property. Although pelts of coyote, red fox, raccoon, skunk and jackrabbit may have commercial value, these species are legally classified as predatory animals in Wyoming and may be taken without a license at any time. Lynx and wolverine are protected animals in Wyoming.

Sales of furbearer licenses have been on a steady upward trend since reaching a low point in 1990 (Figure 1). License sales reached a new high in 2021, going over 3,000 licenses sold for the first time.

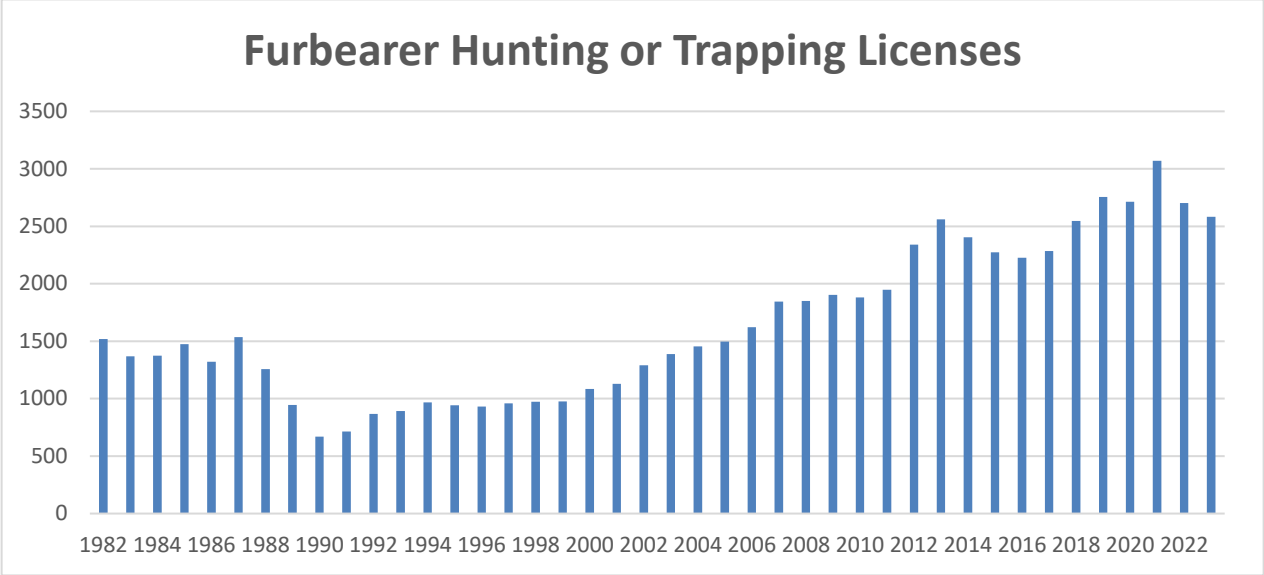


Figure 1. Wyoming furbearer licenses sold, 1982-2023.

Furbearer harvest is influenced by many factors including population size, fur prices, fashion trends, winter conditions, and the economy. Although fur prices are one factor affecting trapper interest, additional factors must also be involved. The steady increase in license sales may indicate that this is now more of a recreational activity, rather than an economic one.

The procedure we use to survey trappers and report data has changed several times since 1977, so harvest and trapping effort may only be comparable within the time frame a particular survey/reporting method was in use. That said, a general downward trend in overall furbearer take is evident since 1982 (Table 1 and Figure 2). However, bobcat (until recently) and marten harvests have generally increased.

Most furbearer harvests are estimated based on responses to the annual furbearer/trapper harvest survey. As mentioned, the survey procedure has undergone some changes. From 1982 to 2001, harvest statistics were derived by simply summing harvests reported on completed surveys and no attempt was made to extrapolate based on the number of licenses sold. Reported harvests declined as the percent of surveys returned decreased. By 1996 the response rate was less than 30%. The survey was suspended from 2002-2005 and then reinstituted in 2006. During the time the survey was suspended, the Department only collected data on bobcat harvest in conjunction with the mandatory CITES tagging program. Since 2006, furbearer harvests have been estimated by extrapolating from the sample of license holders who responded to the survey to all license holders. Due to the changes in survey and data reporting procedures, earlier harvest estimates and trends may be considered unreliable. Bobcat harvest data have been more consistently collected since the mandatory CITES tagging program began in 1990 and trend inferences are more reliable for that species.

Table 1. Wyoming reported furbearer harvests, 1982-present.

Year	Bobcat	Badger	Beaver	Marten	Mink	Muskrat	Weasel
1981-82	1042	1967	5522	305	835	17872	216
1982-83	2135	3114	11767	612	1236	29724	320
1983-84	1607	2068	2448	324	969	24814	91
1984-85	2781	3226	7093	584	603	11561	243
1985-86	1665	3545	7867	1220	582	6862	166
1986-87	1707	1482	9477	881	807	8605	109
1987-88	1522	2811	10484	1418	1692	16742	346
1988-89	1323	1850	6995	1640	1010	9087	255
1989-90	866	773	4920	559	576	4427	121
1990-91	634	714	4131	493	891	2503	77
1991-92	1877	1798	3528	595	305	2980	66
1992-93	1181	878	4136	414	228	2637	57
1993-94	1257	404	1876	442	301	1039	156
1994-95	976	383	1774	180	144	989	22
1995-96	552	156	685	92	28	238	1
1996-97	1135	348	1881	128	178	1856	11
1997-98	1042	3917	1649	1022	121	1639	453
1998-99	1177	311	1690	279	153	1996	43
1999-00	1452	256	1854	185	85	1373	24
2000-01	1354	1295	3339	503	128	3400	19
2001-02	1467						
2002-03	1847						
2003-04	2165						
2004-05	3120						
2005-06	3179	756	4632	1413	267	5246	148
2006-07	3617	1638	3712	2072	480	4844	252

2007-08	3036	1633	3093	2059	530	2920	233
2008-09	2978	1414	2910	1287	253	2595	19
2009-10	1609	1603	3329	996	288	4034	155
2010-11	1606	1003	2814	1268	244	3825	41
2011-12	1875	795	3306	1170	615	4987	56
2012-13	1872	896	2709	1237	728	4837	98
2013-14	1571	563	3184	2988	563	5242	288
2014-15	1140	721	4626	1596	485	7354	168
2015-16	1164	611	2019	966	235	3367	38
2016-17	1397	704	1285	950	309	1555	58
2017-18	2189	1397	1794	1493	419	3690	49
2018-19	1452	955	1582	1344	241	1435	39
2019-20	1207	799	2037	956	417	1958	36
2020-21	845	1025	3073	959	500	1585	28
2021-22	817	622	4348	1305	750	2628	30
2022-23	567	481	2451	1414	351	1685	20
2023-24	1049	353	2297	937	149	1867	60

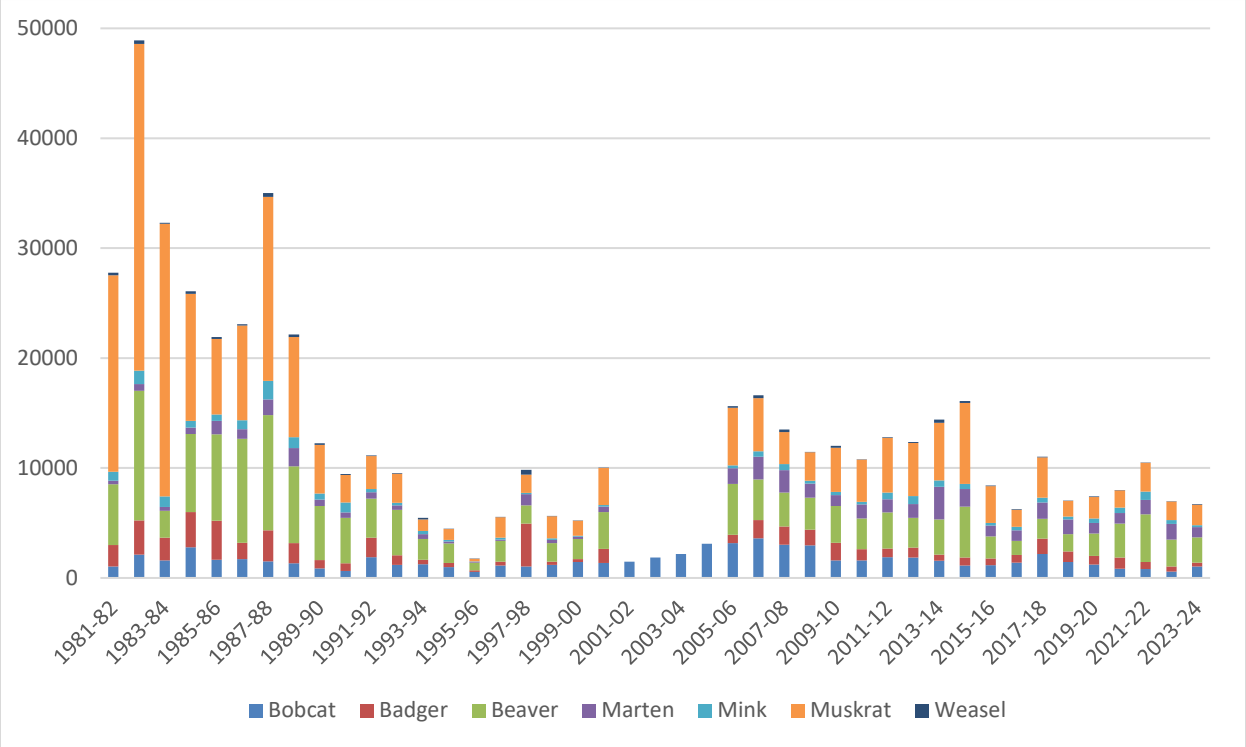


Figure 2. Wyoming furbearer harvest, 1982-present (a furbearer harvest survey was not conducted from 2002-2005 – bobcat harvest was based on mandatory pelt tagging).

In 1982, a single hunt area described as “The Entire State of Wyoming” (Area 1) was defined in regulation to manage all furbearer hunting and trapping. Beginning in 1991, additional trapping and harvest limitations were applied in certain portions of Area 1. Some specified areas were entirely closed to trapping, closed during certain dates, or closed to the use of steel leg hold traps or snares. Limited quota beaver and marten trapping areas were also first established that year. The Wyoming 2023-24 furbearer trapping regulation is included as Appendix 1. The current furbearer management areas are the same as those for bobcats (Fig 4).

A number of studies have been conducted on Wyoming‘s furbearing species and several publications and books provide detailed accounts of their biology, habitat, distribution, abundance, economic value, and other information. A partial list of furbearer references with Wyoming-specific information are listed in Appendix 2.

INDIVIDUAL SPECIES REPORTS

BOBCAT

Bobcats are listed in Appendix II of the of the Convention on International Trade in Endangered Species of wild fauna and flora (CITES) based on their similarity of appearance to endangered spotted cats that are listed in Appendix I. Bobcat harvest must be closely monitored and pelt identification is documented through a tagging program to allow sale in foreign markets. Registration and tagging of all bobcats harvested in Wyoming has been mandated by Commission regulation since July 1, 1990.

The Department is required to annually demonstrate trapping and hunting do not jeopardize the species' continued existence in Wyoming. We do this through monitoring harvest and effort trends in relation to cyclical abundance of the principal prey, cottontail rabbits. This information is summarized and interpreted in an annual CITES report submitted to the USFWS Office of Scientific Authority. CITES reports are available on request from the Department.

Each licensed trapper is provided a bobcat harvest log to record individual harvest data (Figure 3). Six bobcat management areas have been delineated to monitor and report geographic distribution of harvests and trapper participation (Figure 4). Harvest data from other furbearer species are also reported based on the same management area boundaries. The annual number of bobcats taken has averaged 1,604, ranging from 552 in 1996 to 3,617 in 2007 (Figure 5). The long-term harvest trend had been increasing until about 2008, but a reduction in harvest since then has created an overall trend of stable to decreasing slightly.

Bobcats inhabit a variety of habitats throughout the state, but reach their highest densities in brushy areas or open forest with scattered rocky areas or cliffs. They feed on a large variety of small- to medium-size prey, however cottontail rabbits are the most important prey in Wyoming. Changes in bobcat populations are explained predominately by cyclical changes in cottontail rabbit abundance, which influence bobcat reproductive success and recruitment. Trapping data indicate low kitten recruitment during years of low cottontail abundance.

Bobcat populations are not threatened by trapping or hunting. Their preferred habitat is broadly distributed and not vulnerable to conversion or destruction except possibly in some localized situations.

Table 2. Bobcat trapping season dates. Season dates were in effect the year listed and thereafter.

	Opens	Closes
1982	Nov 15	Mar 1

BOBCAT HARVEST LOG

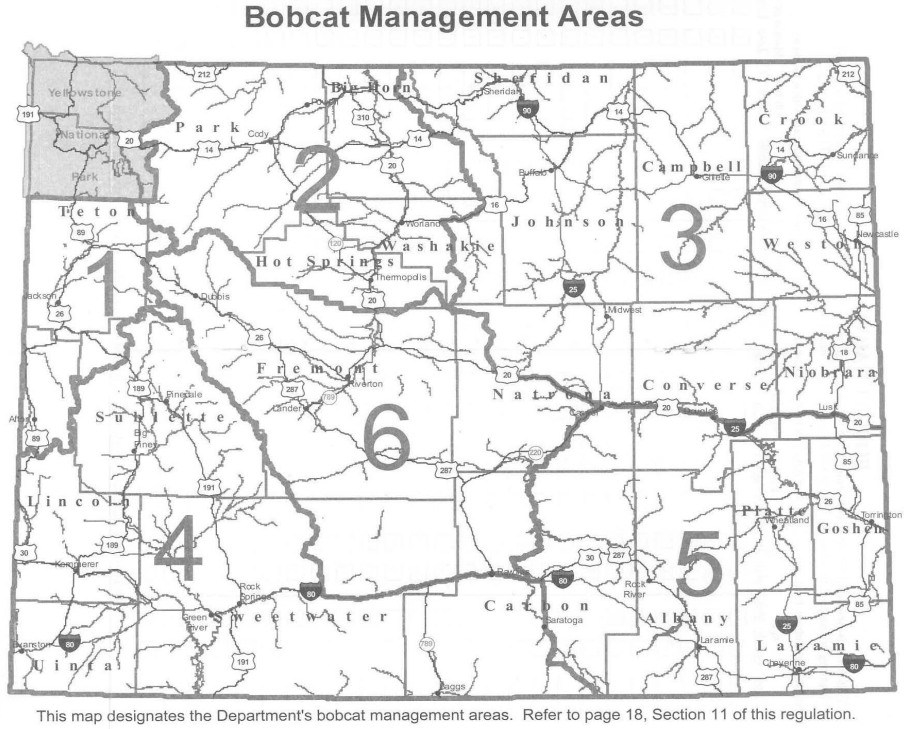
This form is provided for your convenience. When you have your pelts tagged per Chapter 4, Section11(Furbearing Animal Hunting orTrapping Seasons, pg.18) we will request this information from you to comply with CITES reporting.

Number of Bobcat Trap Sets _____ # of days you trapped Bobcats _____ # of days you Hunted Bobcats with a Firearm _____

	Area	Sex Female	Sex Male	Age Adult	Age Juvenile	Kill Date MM/DD/YY	Method of Take Trap	Method of Take Firearm
1.		F	M	A	J	/ /	T	F
2.		F	M	A	J	/ /	T	F
3.		F	M	A	J	/ /	T	F
4.		F	M	A	J	/ /	T	F
5.		F	M	A	J	/ /	T	F
6.		F	M	A	J	/ /	T	F
7.		F	M	A	J	/ /	T	F
8.		F	M	A	J	/ /	T	F
9.		F	M	A	J	/ /	T	F
10.		F	M	A	J	/ /	T	F
11.		F	M	A	J	/ /	T	F
12.		F	M	A	J	/ /	T	F
13.		F	M	A	J	/ /	T	F
14.		F	M	A	J	/ /	T	F
15.		F	M	A	J	/ /	T	F
16.		F	M	A	J	/ /	T	F
17.		F	M	A	J	/ /	T	F
18.		F	M	A	J	/ /	T	F
19.		F	M	A	J	/ /	T	F
20.		F	M	A	J	/ /	T	F
21.		F	M	A	J	/ /	T	F
22.		F	M	A	J	/ /	T	F
23.		F	M	A	J	/ /	T	F
24.		F	M	A	J	/ /	T	F
25.		F	M	A	J	/ /	T	F
26.		F	M	A	J	/ /	T	F
27.		F	M	A	J	/ /	T	F
28.		F	M	A	J	/ /	T	F
29.		F	M	A	J	/ /	T	F
30.		F	M	A	J	/ /	T	F
31.		F	M	A	J	/ /	T	F
32.		F	M	A	J	/ /	T	F
33.		F	M	A	J	/ /	T	F
34.		F	M	A	J	/ /	T	F
35.		F	M	A	J	/ /	T	F
36.		F	M	A	J	/ /	T	F
37.		F	M	A	J	/ /	T	F
38.		F	M	A	J	/ /	T	F
39.		F	M	A	J	/ /	T	F
40.		F	M	A	J	/ /	T	F
41.		F	M	A	J	/ /	T	F
42.		F	M	A	J	/ /	T	F
43.		F	M	A	J	/ /	T	F
44.		F	M	A	J	/ /	T	F
45.		F	M	A	J	/ /	T	F
46.		F	M	A	J	/ /	T	F
47.		F	M	A	J	/ /	T	F
48.		F	M	A	J	/ /	T	F
49.		F	M	A	J	/ /	T	F
50.		F	M	A	J	/ /	T	F

This is not intended to indicate you are limited in the number of Bobcats you can harvest.

Figure 3. Wyoming bobcat harvest log 2017.



This map designates the Department's bobcat management areas. Refer to page 18, Section 11 of this regulation.

Figure 4. Wyoming bobcat management areas.

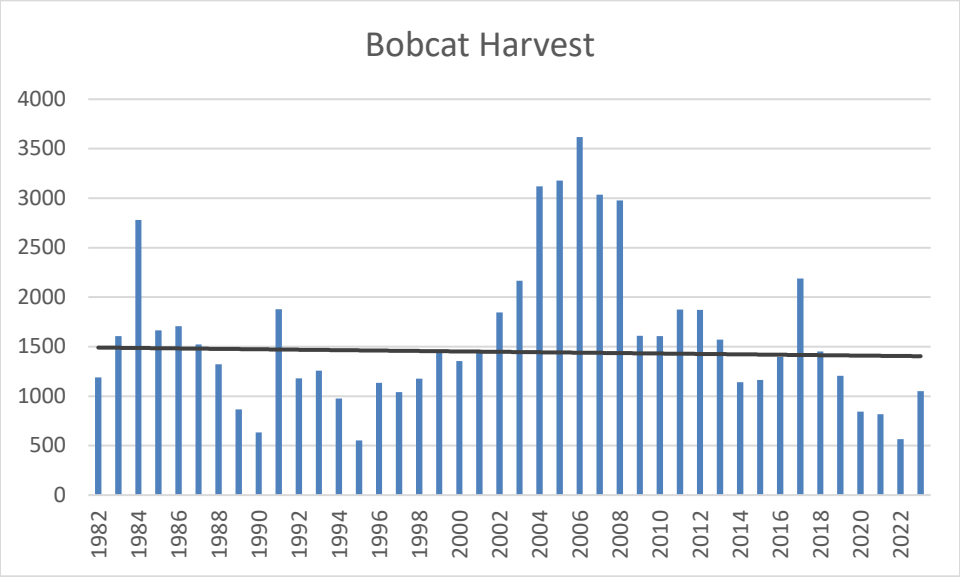


Figure 5. Wyoming statewide bobcat harvest, 1982-present.

The difficulty of trapping bobcats is illustrated by the average number of trap days expended per bobcat harvested (Figure 6). Average effort expended per bobcat captured increases during cyclically lower populations and decreases during cyclically higher populations. This metric enables us to verify the population fluctuates within a range and is not being depleted. Recent trapping effort numbers fall within the historic range and suggest that the population remains healthy.

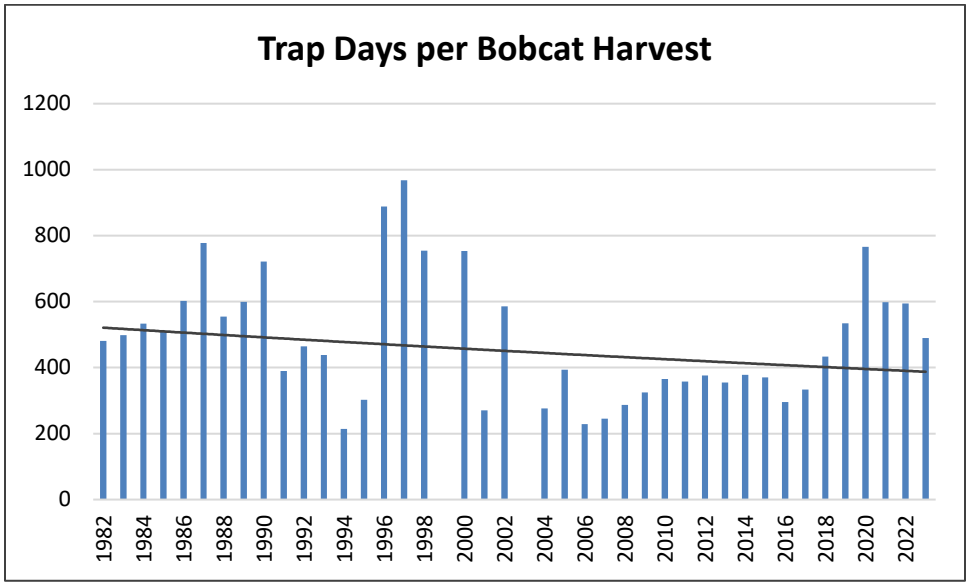


Figure 6. Wyoming statewide average trap days per bobcat harvest, 1982-present.

The six bobcat management areas established for data compilation and reporting have been in place since 2001. As one might expect, there are large geographic differences in the number of animals taken primarily related to differences in habitat (Figure 7 and Table 3). Area 3 consistently accounts for the largest share of the annual harvest and Area 1 the smallest.

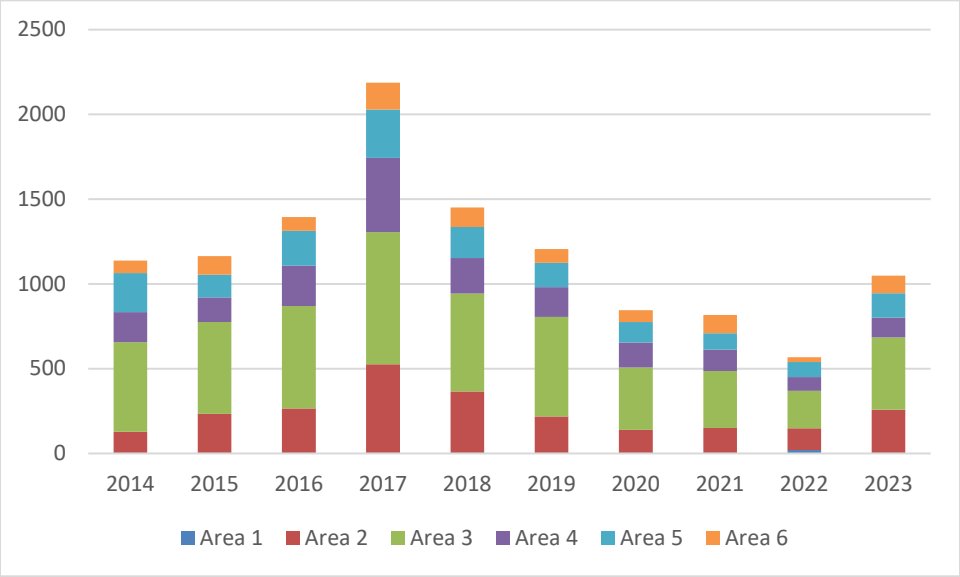


Figure 7. Distribution of bobcat harvests within 6 management areas, 2014-present.

Table 3. Bobcat harvests within individual management areas, 2023-24.

Management Area	Harvest	Percent of Total
1	0	0.0
2	258	24.6
3	426	40.6
4	118	11.2
5	144	13.7
6	103	9.8

BADGER

Badgers are legally classified as a furbearer, but can be killed by landowners when causing damage to private property. The badger trapping season is yearlong. Statistics are not kept on badgers taken for damage. Reported badger harvest has averaged 1,276 annually, ranging from 156 in 1996 to 3,545 in 1986 (Figure 8). The average price paid for a badger pelt at the Colorado Trapper Association fur auction was $15.62 in 2020 (latest information available). The trend in badger harvest is declining.

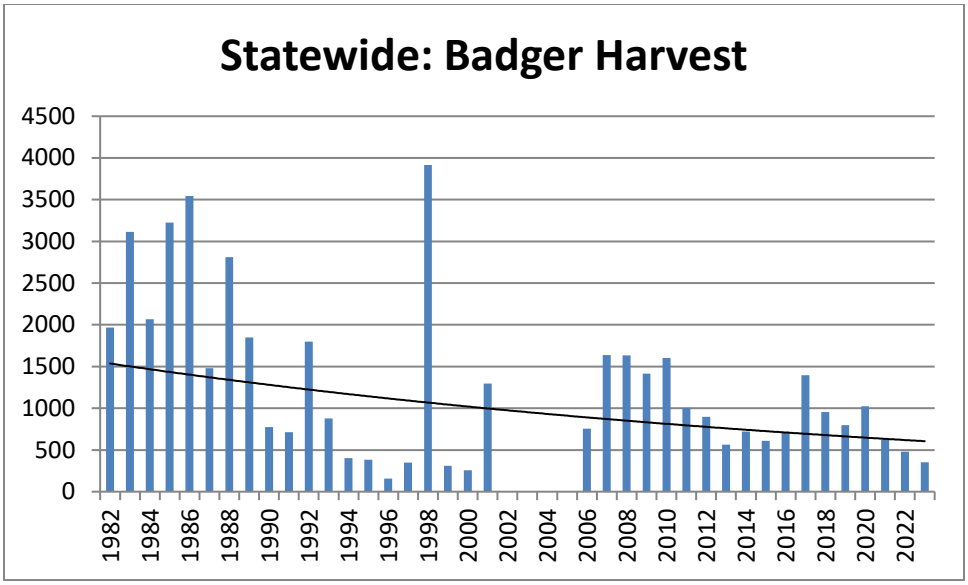


Figure 8. Wyoming badger harvest, 1982-present.

Badgers can be found in many habitat types, but are mostly associated with prairie, sagebrush steppe, and desert shrub communities. These areas hold populations of fossorial mammals such as prairie dogs and ground squirrels, which are their main prey. Badgers also prey opportunistically on bird nests, insects and reptiles. They have been documented depredating Greater Sage Grouse nests, but the impact to grouse populations is negligible relative to other factors that have reduced grouse numbers and range. Badger harvest by area reported for the 2023-24 trapping season reflects the differences in availability of preferred habitats among the management areas, and large tracts of public land accessible in Area 4 (Table 4).

Table 4. Badger harvests within individual management areas, 2023-24

Management Area	Harvest	Percent of Total
1	16	4.5
2	20	5.7
3	32	9.1
4	120	34.0
5	133	37.7
6	32	9.1

Although badger harvest has declined, the statewide badger population is considered secure and fluctuates within a natural range of variation. There is no indication that current levels of harvest are having a significant impact on the statewide population. Badger populations may be reduced locally due to habitat conversions, control programs or disease outbreaks impacting prey populations (e.g., sylvatic plague in prairie dogs), or damage control actions on private property.

Table 5. Badger trapping season dates. Season dates were in effect the year listed and thereafter.

Year	Opens	Closes
1982	Jan 1	Dec 31

BEAVER

Beaver can be trapped throughout the state except in specifically closed areas (Figure 9). There are currently 28 beaver trapping areas (Figure 9) with quota limits on the number of trappers and numbers of beaver that may be taken. Limited quota areas are predominantly within national forest lands. Licensed trappers may also take beaver throughout the remainder of the state during the open season. Beaver causing damage or flooding can be removed at any time by the landowner. Statistics are not kept on beaver taken for damage. The number of beaver taken annually has averaged 3,907, ranging from 685 in 1996 to 11,767 in 1983 (Figure 10). The average price paid for a beaver pelt at the Colorado Trapper Association fur auction was $10.16 in 2020 (latest information available). The trend in beaver harvest is declining.

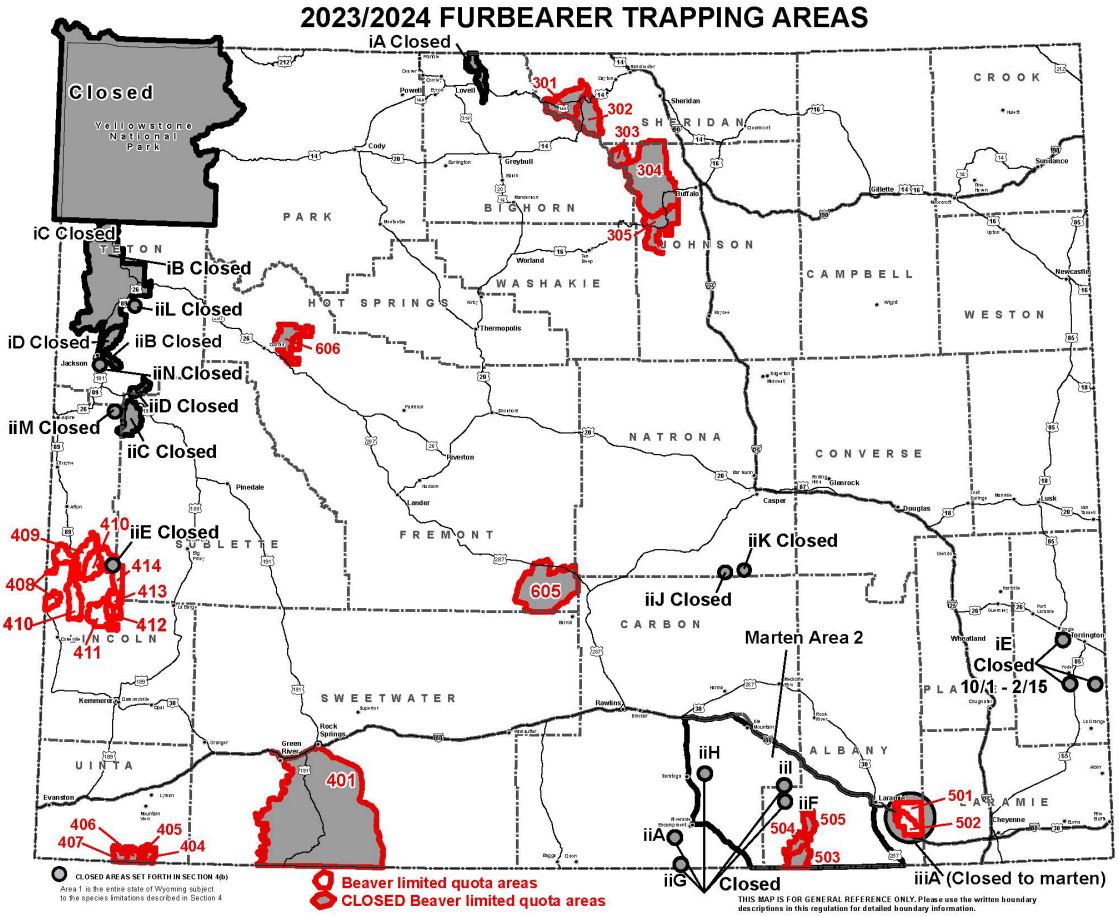


Figure 9. Wyoming furbearer hunting or trapping areas, 2023-24.

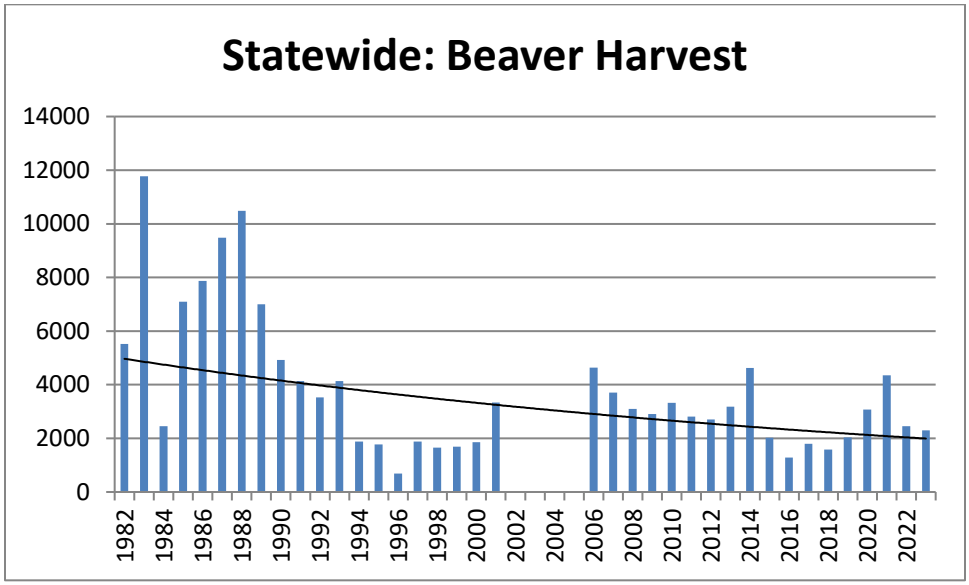


Figure 10. Wyoming beaver harvest, 1982-present.

Beaver played an important role in the history and exploration of the West. Historically, populations were greatly reduced and locally extirpated in many places due to trapping. However, through natural recovery and reintroductions, beaver now occupy most suitable habitats throughout Wyoming. They continue to provide important ecological functions by creating pond and wetland habitats, which attenuate flooding, sustain stream base flows, and restore the floodplain and its associated riparian community. Beaver are also an important economic and recreational resource as they are sustainably harvested for fur and castor. Beaver are mostly associated with low- to mid-gradient drainages and slower moving waters where they can build their familiar dams and lodges, commonly relying on willow and/or aspen as the major food source. Most beaver inhabit mountain or foothill streams. They can survive in larger rivers, sometimes far out into prairie or desert areas, by denning in riverbank burrows.

The Department manages beaver harvest by setting quotas, and open and closed areas. Although the overall trend has been declining since 1982, harvest since 2014 has stabilized. Present quotas of trappers and harvest appear sustainable and prevent local extirpations. Managers continue to trap and move beaver to assist with stream and habitat restoration in degraded areas and vacant habitats. Source populations for translocations are typically from locations where beaver are causing damage, and/or where beaver are abundant. Table 6 displays the distribution of beaver harvest among furbearer management areas in 2023-24.

Table 6. Beaver harvests within individual management areas, 2023-24.

Management Area	Harvest	Percent of Total
1	841	36.6
2	117	5.1
3	350	15.2
4	133	5.8
5	627	27.3
6	229	10.0

Beaver have proven to be both vulnerable and adaptable. They are vulnerable to overharvest, yet can be successfully reintroduced or adapt to new or human-altered habitats. They are the only furbearer species in Wyoming that, through their dams, beaver ponds, and lodges, makes their presence obvious to the public and land managers. Their activities produce many beneficial side-effects, and those same activities can cause local damage or problems. The present system of area quotas and damage control regulations meet the needs for trappers and landowners while maintaining a healthy population of beaver. The only statewide threat that may impact beaver in the future would appear to be climate change. Increased temperatures could have multiple effects, including reduced snowfall, changes to the timing of snowmelt in the spring, more drought conditions and more severe storms.

Table 7. Beaver trapping seasons since 1982. Season dates and limitations were in effect the year listed and thereafter until the year a change is indicated.

Year	Opens	Closes	Area
1982	Oct 1	June 15	Entire State
1991	Oct 1	June 15	31 limited quota areas and balance of state excluding closed areas.
1999	Oct 1	April 30	Variable number of limited quota areas and balance of state excluding closed areas.

MARTEN

The Pacific marten can be trapped or hunted throughout Wyoming. Area 2 encompassing the Snowy Range Mountains has a later starting date for trapping than the rest of the state (Area 1). The number of marten taken annually has averaged 977, ranging from 92 in 1996 to 2,988 in 2013 (Figure 11). The average price paid for a marten pelt at the Colorado Trapper Association fur auction was $21.25 in 2020 (latest information available). The trend in marten harvest is increasing, with the 2013-14 season having the highest recorded harvest.

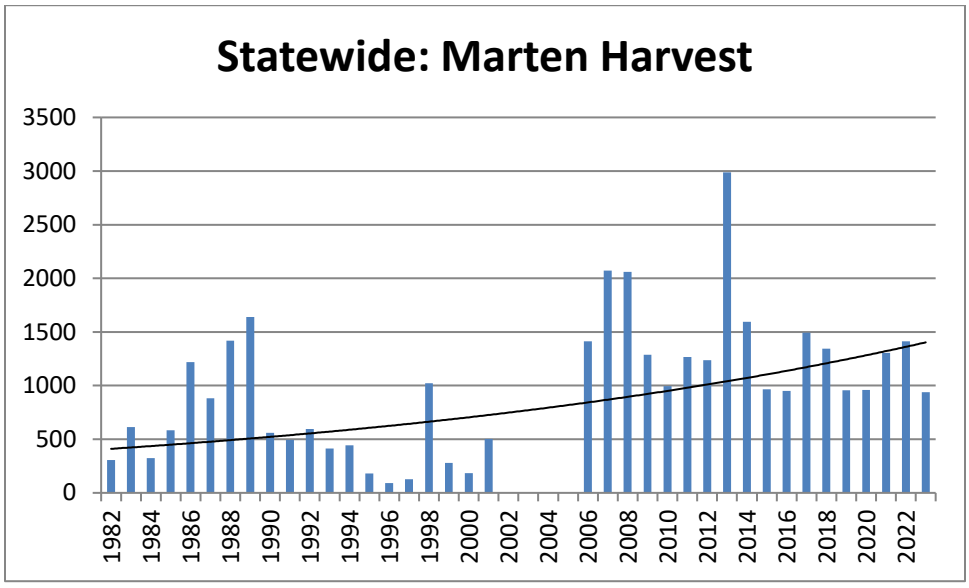


Figure 11. Wyoming marten harvest, 1982-present

Marten are distributed across the major mountain ranges of Wyoming, with the exception of the Black Hills, the Laramie Range, and other ranges below 8,000 feet elevation. Marten predominantly inhabit late-succession stands of conifers (old-growth) in montane forests. They depend on the complex structure (fallen and standing trees, snags, etc.) provided by such habitat for protection from predators, hunting prey, and to provide protected resting sites. They are opportunistic predators, but depend greatly on rodents and other small mammals up to the size of rabbits and pine squirrels. Old-growth forests that have been logged may remain essentially unused by martens for decades until favorable habitat conditions recover through succession. The impact on marten of the recent irruption of pine beetles in southeast Wyoming and the loss of many of the mature pine trees in that area is, as yet, unknown. In the past, the largest harvest of marten came from management Area 1 (Table 8). However, conditions may have become more favorable for marten in other areas recently, based on harvest numbers.

Table 8. American marten harvests within individual management areas, 2023-24.

Management Area	Harvest	Percent of Total
1	686	73.2
2	32	3.4
3	4	0.4
4	155	16.5
5	60	6.4
6	0	0

Marten can be vulnerable to trapping and it is possible to impact accessible populations on a localized scale. However, much of the habitat occupied by martens is difficult to access due to deep snow and remote locations, thereby creating de facto refuges from harvest. The increasing trend in harvest, both long-term and recent, indicates marten habitat is improving. Itis likely that favorable habitat conditions are returning within areas that were clear-cut logged several decades ago.

Predicted effects of climate change may have some consequences for marten. Reduced snow depth and earlier snowmelt in the spring could cause suitable habitat to contract at lower elevations and in the southern extent of marten range. Reduced snow depths could also potentially enlarge the area accessible to trappers, although this is speculative. Although climate change could potentially happen quickly, ensuing habitat changes would happen over a longer period. There is no indication current harvest levels are impacting marten populations.

Table 9. Marten trapping season dates since 1982. Season dates and limitations were in effect the year listed and thereafter until the year a change is indicated.

Year	Opens	Closes	Limitations
1982	Oct 1	April 30	Entire State
1991	Oct 1	April 30	1 limited quota area and balance of state excluding closed areas.
1993	Oct 1	Feb 28	1 limited quota area and Area 1 excluding closed areas.
1993	Dec 1	Feb 28	Area 503
1999	Oct 1	Mar 1	1 limited quota area and Area 1 excluding closed areas.
1999	Dec 1	Mar 1	Area 503
2006	Oct 1	Mar 1	1 limited quota area and Area 1 excluding closed areas.
2006	Dec 1	Mar 1	Area 2
2015	Oct 1	Mar 1	Area 1 excluding closed areas.

2015	Dec 1	Mar 1	Area 2

MINK

Mink can be trapped or hunted throughout the entire state during the trapping season, and may also be killed at any time by landowners if they are causing damage to property. Statistics are not kept on mink taken for damage. The number of mink taken annually has averaged 476, ranging from 28 in 1996 to 1,692 in 1988 (Figure 12). The average price paid for a mink pelt at the Colorado Trapper Association fur auction was $5.00 in 2020 (latest information available). The trend in mink harvest is decreasing over the long-term, but there doesn't seem to be a recent short-term trend.

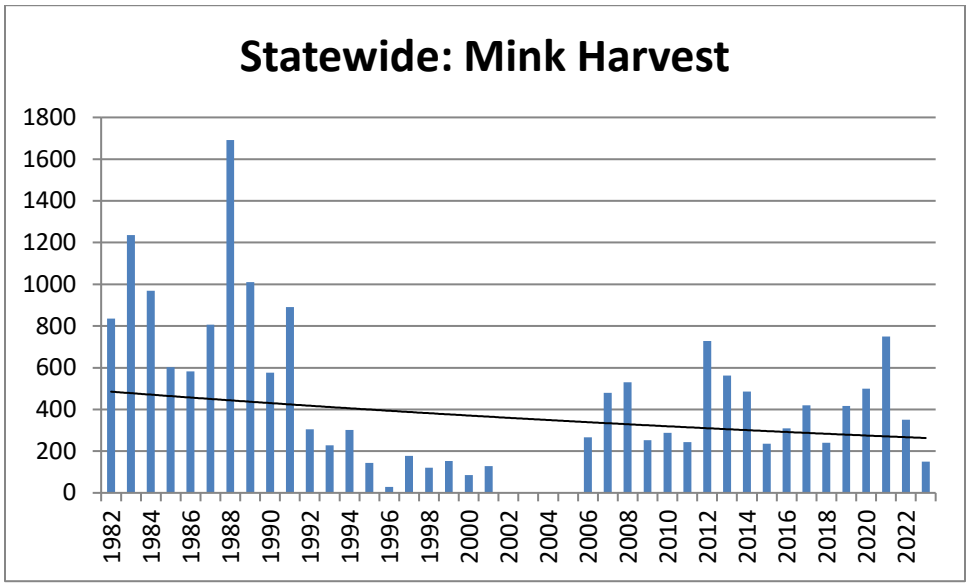


Figure 12. Wyoming mink harvest, 1982-present.

Mink occupy riparian areas in almost all parts of the state. These areas provide cover, den sites, and access to a wide variety of aquatic and terrestrial prey items. Mink prey on fish, amphibians, crustaceans, birds and their eggs, muskrats and small mammals. Small mammals are the most important food item throughout the year, but other species such as waterfowl and their eggs may be seasonally important. The geographic distribution of mink harvest is similar to that of beaver, as the two species occupy similar habitats (Table 10).

Table 10. Mink harvests within individual management areas, 2023-24.

Management Area	Harvest	Percent of Total
1	16	10.7
2	97	65.1
3	4	2.7
4	0	0
5	32	21.5
6	0	0

The current level of harvest has no measurable impact on the mink population. The species is broadly distributed, highly adaptable, and capable of exploiting a range of food resources. Mink numbers may be

suppressed locally under heavy trapping pressure, but animals from surrounding areas quickly disperse to fill any vacant territory and populations recover quickly. Habitat alteration and destruction are larger concerns, although the species' adaptability equips them to survive in altered habitats better than some other furbearing species.

Table 11. Mink trapping season dates since 1982. Season dates were in effect the year listed and thereafter until the year a change is indicated.

Year	Opens	Closes
1982	Oct 1	June 15
1999	Oct 1	March 31
2012	Oct 1	April 30

MUSKRAT

Muskrats are trapped and hunted throughout the state during the established trapping season, and can also be killed by landowners when causing damage to private property. Statistics are not kept on muskrat taken for damage. The number of muskrat taken annually has averaged 5,538, ranging from 238 in 1995 to 29,724 in 1983 (Figure 13). The average price paid for a muskrat pelt at the Colorado Trapper Association fur auction was $1.77 in 2020 (latest information available). The trend in muskrat harvest is decreasing over the long-term, same as the short-term trend.

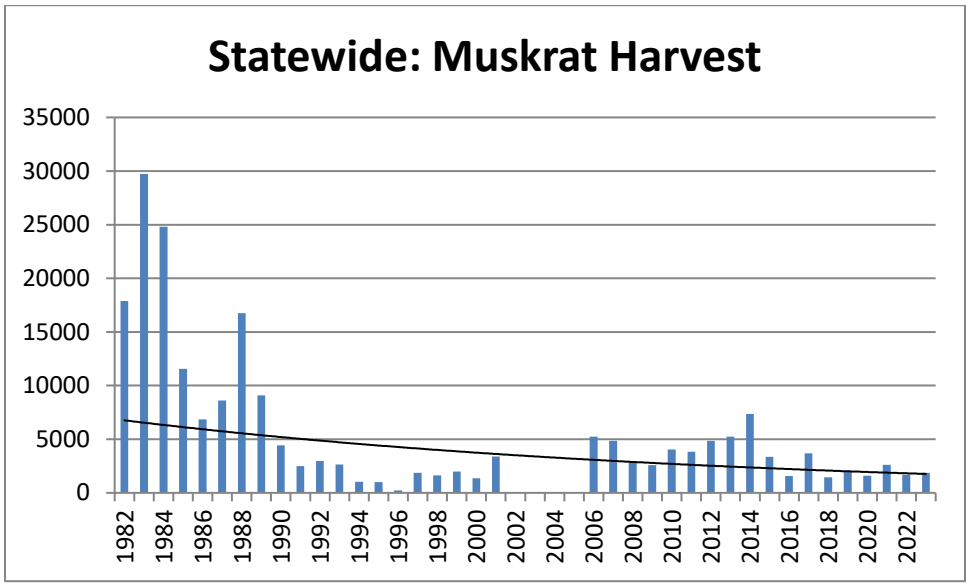


Figure 13. Wyoming muskrat harvest, 1982-present

Muskrats inhabit permanent water bodies including lakes (natural and man-made), rivers, and marshes statewide. They reach their maximum density in emergent marshes that supply an abundance of preferred foods, den building material, and cover. Vegetation characteristics are modified by muskrat herbivory, which often leads to a more favorable interspersion of open water and emergent patches. As openings are created in stands of dense emergent vegetation, marsh productivity increases along with the density and diversity of birds using those areas. Muskrat lodges are also used as nest and loafing sites by several avian species. In the extreme case, muskrat population irruptions can remove nearly all emergent vegetation, a phenomenon known as an “eat-out.” However, eat-outs have not been documented in northern latitude states including Wyoming. Muskrats have large litter sizes and the ability to produce multiple litters per year. Although they are prey to several predator species, their high reproductive rate enables them to withstand substantial mortality from predation. The distribution of muskrat harvest in 2023-24 was strongly biased toward Area 1, whereas often before it was more balanced between the six areas, (Table 12).

Table 12. Muskrat harvests within individual management areas, 2023-24.

Management Area	Harvest	Percent of Total
1	1118	59.8
2	278	14.9
3	257	13.8
4	93	10.3
5	24	1.3
6	97	5.2

Muskrat populations are healthy and the level of harvest sustainable. Much greater harvests were reported in the early 1980's. In recent years, harvest estimates have been lower although the trend is stable to slightly increasing. Habitat destruction poses the greatest threat to muskrats, but mostly at a local scale. Muskrats readily colonize new or restored wetland habitats. In the long term, altered precipitation patterns associated with climate change may result in lower water levels and fewer marsh habitats. If that happens, muskrat distribution (and that of other aquatic species) would become more fragmented.

Table 13. Muskrat trapping season dates since 1982. Season dates were in effect the year listed and thereafter until the year a change is indicated.

Year	Opens	Closes
1982	Oct 1	June 15
1999	Oct 1	March 31
2000	Oct 1	April 30

WEASEL

Weasels can be trapped or hunted throughout the state during the open trapping season, and can also be killed by landowners at any time when causing damage to private property. Statistics are not kept on weasels taken for damage control. Three weasel species occur in Wyoming: long-tailed, short-tailed (ermine) and least. Least weasels are rare and only the peripheral portions of their range extend into the state. Least weasel pelts have little commercial value. Trappers are asked to avoid trapping them if possible, and to report incidental take so the Department can accumulate additional data on their distribution. The number of weasels taken annually has averaged 120, ranging from 1 in 1996 to 453 in 1998 (Figure 14). The average price paid for a weasel pelt at The Colorado Trapper Association fur auction was $1.00 in 2020 (latest information available). The long-term trend in weasel harvest is decreasing; however this is likely not significant statistically due to the small and highly variable numbers of weasel harvested annually. The trend in recent years is also decreasing.

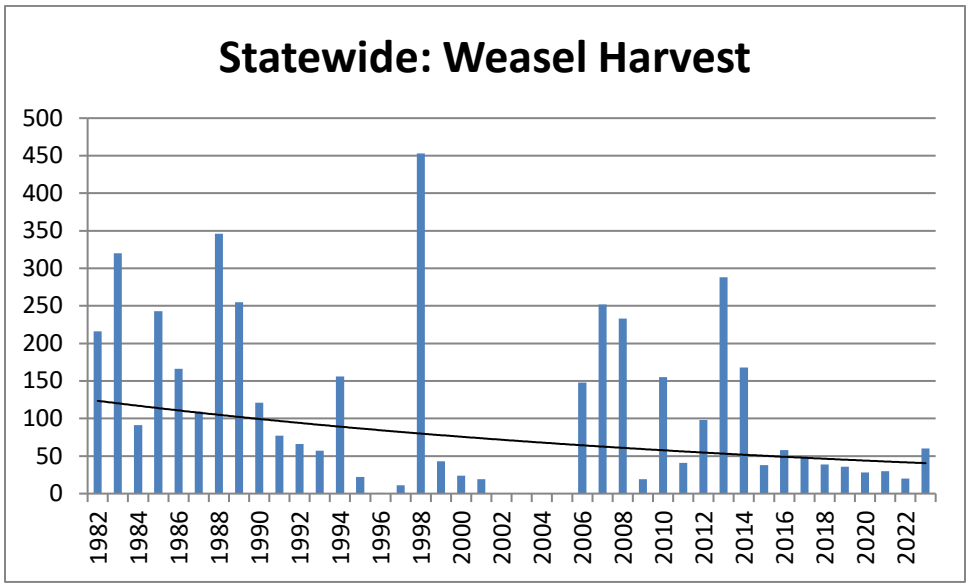


Figure 14. Wyoming weasel harvest, 1982-present.

Weasels occupy a variety of habitats throughout Wyoming. Short- and long-tailed weasels appear to avoid dense forest and desert, and it appears that the availability of water in summer can limit distribution. Least weasels seem to have similar habitat requirements; however the Department's Wildlife Observation System contains only 23 records on which to base this. Weasels are voracious predators for their size and will kill and consume about anything they can subdue, but primarily small rodents. Because of the small harvest, the percentage of harvest in each management area is highly variable (Table 14).

Table 14. Weasel harvests within each management area, 2023-24.

Management Area	Harvest	Percent of Total
1	16	80
2	0	0
3	0	0
4	4	20
5	0	0
6	0	0

Weasel populations are not specifically monitored in Wyoming, although inferences about their distribution and relative abundance can be derived from catch rates. Weasels are very adaptable to changes in their environment. As interest in harvesting weasels is very limited due to their low commercial value, take from trapping has little potential to impact their populations. It is conceivable that an intensive trapping effort could depress weasel numbers locally; however animals from surrounding areas quickly disperse to fill any vacant territories and populations recover quickly.

Table 15. Weasel trapping season dates since 1982. Season dates were in effect the year listed and thereafter until the year a change is indicated.

Year	Opens	Closes
1982	Oct 1	April 30
1999	Oct 1	March 31

APPENDIX 1

CHAPTER 4

FURBEARING ANIMAL HUNTING OR TRAPPING SEASONS

Section 1. Authority. This regulation is promulgated by authority of Wyoming Statute § 23-1-302, § 23-2-303, § 23-2-304, § 23-2-305 and § 23-3-109.

Section 2. Definitions. Definitions shall be as set forth in Title 23, Wyoming Statutes, Commission regulations, and the Commission also adopts the following definitions:

(a) "Drainage" means all lands within the watershed of a named river or stream, including all tributaries and standing waters that drain into the named river or stream.

(b) "Leg-hold Trap" means any device using a mechanical trigger that springs the jaws or loop shut for capturing furbearing or predatory animals.

(c) "Live Trap" means any device designed to capture or trap a live animal inside a cage or structure. Such traps include, but are not limited to box traps and cage traps.

(d) "Owner" means the person who physically sets any trap or snare in any fashion that may result in the take of any furbearing or predatory animal.

(e) "Pet" means any domestic or tamed animal kept for companionship or pleasure.

(f) "Power-Activated Snare" means a snare with a spring or other device that applies pressure to the locking mechanism.

(g) "Quick-kill Body-grip Trap" means a device that closes around the body or head of the animal in such a manner as to almost immediately kill the animal caught.

(h) "Raw Fur" means the untanned hide or skin, or the unskinned carcass of a furbearing animal.

(i) "Snare" means a device consisting of a loop with no mechanical trigger for capturing furbearing or predatory animals.

(j) "Tamper" means to disturb, obstruct, damage, steal or interfere with any legally placed trap or snare except for releasing any pet or livestock from a trap or snare.

(k) "Trapping" or "trap" means the taking of a furbearing or predatory animal by trap or snare, or taking of a furbearing animal with a firearm or archery equipment.

(l) "Trap Identification Number" means an identification number assigned to the owner of traps or snares by the Department.

(m) "Week" means the seven (7) day period starting on Monday through the following Sunday.

Section 3. Hunting or Trapping Seasons.

Species, hunting or trapping areas, season dates and limitations.

Species	Trapping Area	Season Dates Opens	Closes	Limitations
Mink	1	Oct. 1	Apr. 30	Any mink
Bobcat	1	Nov. 15	Mar. 1	Any bobcat
Muskrat	1	Oct. 1	Apr. 30	Any muskrat
Weasel	1	Oct. 1	Mar. 31	Any weasel
Badger	1	Jan. 1	Dec. 31	Any badger
Marten	1	Oct. 1	Mar. 1	Any marten
	2	Dec. 1	Mar. 1	Any marten
Beaver	1	Oct. 1	Apr. 30	Any beaver
	301	CLOSED		
	302	CLOSED		
	303	CLOSED		
	304	CLOSED		
	305	CLOSED		
	401	CLOSED		
	404	CLOSED		
	405	CLOSED		
	406	CLOSED		
	407	CLOSED		
	408	Oct. 1	Apr. 30	1 trapper; 25 beaver
	409	Oct. 1	Apr. 30	1 trapper; 15 beaver
	410	Oct. 1	Apr. 30	1 trapper; 20 beaver
	411	Oct. 1	Apr. 30	1 trapper; 35 beaver
	412	Oct. 1	Apr. 30	1 trapper; 15 beaver
	413	Oct. 1	Apr. 30	1 trapper; 30 beaver
	414	Oct. 1	Apr. 30	1 trapper; 30 beaver
	501	Oct. 1	Apr. 30	1 trapper; 10 beaver
	502	Oct. 1	Apr. 30	1 trapper; 10 beaver
	503	CLOSED		
	504	CLOSED		
	505	CLOSED		
	605	CLOSED		
	606	CLOSED		

Section 4. Furbearing Animal Hunting or Trapping Area Descriptions.

(a) Area and number.

(i) All furbearing animals, excluding marten and beaver.

Area 1. The entire State of Wyoming, excluding those areas closed in Section 4(b).

(ii) Marten.

Area 1. The entire State of Wyoming, excluding Area 2 as listed in this subsection and those areas closed in Section 4(b).

Area 2. Snowy Range. Beginning at the junction of Interstate Highway 80 and U.S. Highway 287 in the city of Laramie; southerly along U.S. Highway 287 to the Wyoming-Colorado state line; westerly along said line to Wyoming Highway 230 in Carbon County; northerly along said highway to Wyoming Highway 130; northerly along said highway to Interstate Highway 80; easterly along said highway to its junction with U.S. Highway 287.

(iii) Beaver.

Area 1. The entire State of Wyoming, excluding those limited quota trapping areas listed in this subsection and those areas closed in Section 4(b).

Area 301. North Tongue River. North Tongue River drainage in Sheridan County.

Area 302. South Tongue River. South Tongue River drainage in Sheridan County.

Area 303. East Fork of Big Goose Creek. East Fork of Big Goose Creek drainage upstream of Park Reservoir in Johnson County.

Area 304. Clear Creek. Clear Creek drainage on U.S. Forest Service lands in Johnson County.

Area 305. Crazy Woman Creek. Crazy Woman Creek drainage on U.S. Forest Service lands in Johnson County.

Area 401. South Rock Springs. That portion of Sweetwater County south of I-80 between the Green River, Flaming Gorge Reservoir and Wyoming Highway 430.

Area 404. Henrys Fork. Henrys Fork River, Louse Creek and Sage Creek drainages on the Wasatch-Cache National Forest in Uinta County.

Area 405. Cottonwood Creek. Cottonwood Creek drainage on the Wasatch-Cache National Forest in Uinta County.**Area**

406. East Fork of Smiths Fork. Drainages of Gilbert Creek and East Fork of Smiths Fork River upstream from Wasatch-Cache National Forest boundary in Uinta County.

Area 407. West Fork of Smiths Fork. West Fork of the Smiths Fork River and Willow Creek drainages upstream from Wasatch-Cache National Forest boundary in Uinta County.

Area 408. Salt Creek. Salt Creek drainage on U.S. Forest Service lands, Salt Creek Proper and Raymond Creek drainage on public lands in Lincoln County.

Area 409. Upper Smiths Fork. Smiths Fork drainage on U.S. Forest Service lands in Lincoln County.

Area 410. Hobble Creek. Hobble Creek drainage on U.S. Forest Service lands, Coal Creek, and Saw Mill Creek drainages in Lincoln County.

Area 411. Hams Fork River (Hams Fork). Beginning where the Hams Fork River crosses the Bridger-Teton National Forest boundary to where the river crosses U.S. Forest Service Road 062 and all tributaries lying east of the Hams Fork River in Lincoln County.

Area 412. South Fork Fontenelle Creek. Beginning where the South Fork of Fontenelle Creek crosses the Bridger-Teton National Forest boundary to its headwaters and all tributaries in Lincoln County, including all of the drainages of the South Fork of Fontenelle Creek upstream from the Bridger-Teton National Forest boundary within Lincoln County.

Area 413. Fontenelle Creek. Beginning where Fontenelle Creek crosses the Bridger-Teton National Forest boundary to the confluence of Camp Fire Creek and all tributaries in Lincoln County, including all of the drainages of Fontenelle Creek between the Bridger-Teton National Forest boundary and Camp Fire Creek within Lincoln County.

Area 414. LaBarge Creek and South LaBarge Creek (main streams). Beginning where LaBarge Creek crosses the Bridger-Teton National Forest boundary to its headwaters and the main channel of South LaBarge Creek in Lincoln County. LaBarge Creek Proper will be closed one (1) mile each direction from the confluence of Nameless Creek and LaBarge Creek in Lincoln County.

Area 501. North Pole Mountain. All of the drainages of Brush Creek, Crow Creek, Lodgepole (Pole) Creek, McKechnie Creek and Horse Creek within the boundaries of the Pole Mountain Division of the Medicine Bow National Forest and north of the Happy Jack Road (Wyoming Secondary Highway 210-U.S.F.S. 722) in Albany County.

Area 502. South Pole Mountain. All of the drainages of Brush Creek, Lodgepole (Pole) Creek, Crow Creek and Dale Creek within the boundaries of the Pole

Mountain Division of the Medicine Bow National Forest and south of the Happy Jack Road (Wyoming Secondary Highway 210-U.S.F.S. 722) in Albany County.

Area 503. Woods Landing. All public lands within Boswell Creek, Eagle Creek, Shellrock Creek, Bear Creek, Jelm Creek and Porter Creek drainages in Albany County.

Area 504. Lake Owen. All public lands south and east of U.S.F.S Roads 552 and 540 within Fox Creek, Squirrel Creek, Squaw Creek, Lake Owen Creek and Strain Creek drainages in Albany County.

Area 505. Sheep Mountain. All public lands within Fence Creek, Hecht Creek and Buckeye Creek drainages in Albany County.

Area 605. Green Mountain. All public lands within the Crooks Creek, Cottonwood Creek, Cooper Creek and Willow Creek drainages on Green Mountain in Fremont County.

Area 606. East Fork Wind River. All lands within the Spence and Moriarity Wildlife Management Area and the Kirk Inberg/Kevin Roy Wildlife Habitat Management Area in Fremont County.

(b) Closed areas.

(i) The following areas shall be closed to the taking of all furbearing animals.

(A) Bighorn Canyon National Recreation Area in Bighorn County;

(B) Grand Teton National Park in Teton County;

(C) John D. Rockefeller Jr. Memorial Parkway in Teton County;

(D) National Elk Refuge in Teton County; and,

(ii) The following areas shall be closed to the taking of beaver.

(A) Beaver Creek drainage from Wyoming Highway 70 downstream to its confluence with the North Fork of the Encampment River in Carbon County;

(B) Cache Creek drainage in Teton County;

(C) Cliff Creek drainage in Sublette County;

(D) Granite Creek drainage from the Granite Hot Springs swimming pool downstream to the confluence with the Hoback River in Teton and Sublette Counties;

(E) Nameless Creek proper in Lincoln County;

(F) Nash Fork drainage south of Wyoming Highway 130 from the Snowy Range Ski Area Road downstream to its confluence with the North Fork of the Little Laramie River in Albany County;

(G) South Fork Hog Park Creek drainage from the Colorado/Wyoming state line downstream to its confluence with Hog Park Creek in Carbon County;

(H) South Fork Lake Creek and Goetze Creek drainages on the Pennock Mountain Wildlife Habitat Management Area in Carbon County;

(I) The head of the Rock Creek drainage north and east of the Sand Lake Road (U.S.F.S. Road 101) downstream to its confluence with the South Fork of Rock Creek in Carbon County;

(J) Bolton Creek drainage in Carbon and Natrona counties.

(K) Stinking Creek drainage (including Lone Tree Creek and Elk Creek) in Carbon and Natrona counties;

(L) Ditch Creek drainage from the confluence of the North Fork and Middle Fork of Ditch Creek downstream to the U.S.F.S. – Private Land Boundary in Teton County;

(M) Willow Creek drainage upstream from the confluence of Willow Creek and Sourdough Creek in Teton, Lincoln and Sublette counties; and,

(N) Game Creek drainage in Teton County.

(iii) The following areas shall be closed to the taking of Marten.

(A) All lands within the Pole Mountain Unit of the Medicine Bow National Forest in Albany County.

(iv) The following areas shall be closed to the use of any snare or quick-kill body grip trap with a jaw spread exceeding five (5) inches during any open pheasant hunting season:

(A) Bud Love Wildlife Habitat Management Area;

(B) Ocean Lake Wildlife Habitat Management Area;

(C) Sand Mesa Wildlife Habitat Management Area east of Bass Lake Road;

(D) Yellowtail Wildlife Habitat Management Area.

(v) The following areas shall be closed to the use of any snare or quick-kill body grip trap with a jaw spread exceeding five (5) inches from October 1 through February 15;

(A) Rawhide Wildlife Habitat Management Area;

(B) Springer/Bump Sullivan Wildlife Habitat Management Area; and,

(C) Table Mountain Wildlife Habitat Management Area.

(vi) The following areas shall be closed to the use of any snare, quick-kill body grip trap, leg-hold trap, and live trap during the calendar year;

(A) Pilot Hill Wildlife Habitat Management Area; and,

(B) John/Annie Woodhouse Public Access Area.

Section 5. Common Season Boundary. Wherever a stream or river forms a boundary between two (2) trapping areas with differing seasons for the same furbearing animal, the stream or river channel proper shall open for trapping on the earliest opening date and close on the latest closing date of the two (2) seasons involved.

Section 6. Limited Quota Furbearing Animal Trapping Area Permits. Only the holder of a permit for a limited quota trapping area(s) shall be allowed to trap the limited quota area for the designated species during the trapping season for which the permit is valid. Permit holders shall be determined by a random computer selection.

(a) Application for Limited Quota Furbearing Animal Trapping Permits. Applications shall be available from Wyoming Game and Fish Department Regional Offices, the Cheyenne Headquarters Office and game wardens. Any qualified person may submit one (1) application for a limited quota trapping area drawing and may list as many as three (3) choices.

(b) When trapping, each permit holder shall present their permit and a valid Wyoming furbearing animal trapping license for inspection upon request to any law enforcement officer empowered to enforce these regulations.

(c) Application Date. Applications shall be submitted on a form provided by the Department to the Headquarters Office from April 1 through May 31.

(d) Drawing. Only correct and complete applications received in the Headquarters Office during the application dates shall be entered in the random computer selection. Successful applicants shall be notified by mail.

(e) Leftover Limited Quota Trapping Area Permits. After the regular drawing, applicants may apply for limited quota trapping area permits not issued in the drawing for

limited quota furbearing animal trapping areas. Applicants shall apply to the Headquarters Office. Permits shall be issued in the order the applications are processed or until quotas are reached. Submission of an application either through the mail or hand delivered shall not guarantee a permit.

Section 7. Authorization to Trap.

(a) Any person holding a valid Wyoming furbearing animal trapping license shall be authorized to trap furbearing animals in any trapping area specified in the current trapping regulations, excluding those species within limited quota furbearing animal trapping areas for which a limited quota furbearing animal trapping permit is required and excluding closed areas in Section 4(b) of this regulation.

(b) Individuals issued limited quota furbearing animal trapping permits shall contact the game warden listed on the notice for instructions prior to taking furbearing animals authorized by this permit in the limited quota furbearing animal trapping areas.

Section 8. Trap and Snare Specifications.

(a) All snares used for furbearing or predatory animals shall be equipped with a break-away device located at the point of the snare lock;

(b) Break-away devices shall release at two hundred ninety-five (295) pounds of pressure or less;

(c) Snare capture loop size shall not exceed twelve (12) inches in diameter measured from side to side;

(d) Snares shall be solidly anchored to ensure the break-away device properly functions to release at two hundred ninety-five (295) pounds of pressure or less, and;

(i) Snares shall not be anchored to any wire of a fence.

(ii) Snares shall not be anchored to any moveable object such as a drag.

(e) Power-activated snares with a spring greater than three (3) inches in length when fully extended may only be set on private land; and,

(f) A quick-kill body-grip trap having a jaw measurement of ten (10) inches or greater when measured vertically at its widest part of the jaw shall not be set, other than on private land, unless the bottom of the quick-kill body-grip trap is at least partially submerged in water when set.

Section 9. Check Period for Leg-Hold Traps, Live Traps, Snares and Quick-Kill Body-Grip Traps.

(a) All leg-hold traps and live traps shall be checked by the owner a minimum of once during each seventy-two (72) hour period.

(b) All snares and quick-kill body-grip traps shall be checked by the owner a minimum of one time each week, except during the initial week the snares or quick-kill body- grip traps were set.

Section 10. Mandatory Bobcat Registration. All bobcats harvested in Wyoming shall be registered with the Department by the person taking the bobcat, regardless of the final disposition of the raw fur. Bobcat raw furs may be registered throughout the bobcat season, but registration shall end at 5:00 p.m. on March 11 of each year. If the registration deadline date occurs on a weekend when the Department Regional Offices are closed, bobcat raw furs may be registered on the next business day until 5:00 p.m. Mountain Standard Time. The properly licensed trapper shall present a bobcat raw fur in an unfrozen condition to a game warden or a Department Regional Office. It shall be unlawful to possess an untagged bobcat raw fur after the registration period expires.

(a) Before a Wyoming bobcat tag shall be issued, the person taking a bobcat shall provide to the Department at the time of registration, the age and sex of the bobcat, the number of the Department's bobcat management area in which the bobcat was taken, the method of take, the date the bobcat was taken, the number of traps that were set, and the number of days traps were set or days hunted with a firearm.

(b) A Wyoming bobcat tag shall be attached to a bobcat raw fur by an employee of the Department. Wyoming bobcat tags shall be issued free of charge.

(c) Any person who makes a false statement on the registration form shall be in violation of this regulation and such violation shall be punishable as provided by Title 23, Wyoming Statutes for violation of Commission regulations.

Section 11. Trapping of Non-target Wildlife; Disposition of Furbearing Animals at the Trap Site.

(a) All big or trophy game animals, game birds, protected animals or protected birds that are trapped shall be released unharmed.

(b) If a big or trophy game animal, game bird, protected animal or raptor is trapped and has been injured in such a way that the injury may result in death of the animal or if the animal has been killed, the trapper shall notify a Department law enforcement officer as soon as is reasonably possible.

(c) Furbearing animals that are trapped during a closed season shall be released unharmed. If a furbearing animal is caught during a closed season and injured in such a way that may result in death of the animal or if the furbearing animal has been killed, the trapper shall notify a Department law enforcement officer as soon as is reasonably possible.

(d) Furbearing animals legally taken shall be either killed at the trap site or immediately released to the wild. If the trapper holds both a furbearing animal trapping license and a license to capture furbearing animals for domestication, the furbearing animals do not have to be killed at the trap site.

(e) Nothing in this Section shall prohibit a person from releasing any pet or livestock from a trap or snare.

Section 12. Use of Dogs. Persons possessing a valid furbearing animal trapping license may use dogs to take bobcats during the bobcat hunting or trapping season.

Section 13. Trap Identification Numbers. All traps and snares used for furbearing or predatory animals shall be permanently marked or tagged with the name and address of the owner or the trap identification number assigned to the owner by the Department.

(a) A person may apply for a trap identification number from the Department. Each individual shall be issued only one (1) trap identification number for the life of the trapper. Trap identification numbers shall be transferable from one (1) person to another only upon completion of an application and approval by the Department.

(b) Trap identification numbers shall consist of the prefix WY, followed by the last two (2) digits of the calendar year in which the number is issued, followed by a number generated by the Department. A hyphen shall separate the three (3) portions of the number. For example, the first trap identification number issued in calendar year 2001 shall be WY-01-001. Numbers shall be legible, at least one-eighth (1/8) inch in height and affixed to traps in such a manner as to read left to right. The trap identification number shall be stamped on the trap or on a metal tag that is affixed to the trap.

(c) Application for a trap identification number shall include the full name and complete home address of the applicant and shall be submitted on a form provided by the Department. Applications shall be submitted to the Wildlife Division, at the Headquarters Office of the Wyoming Game and Fish Department.

(d) Any person who has obtained a trap identification number shall notify the Department by telephoning (307) 777-4600 within thirty (30) days of any change in address.

WYOMING GAME AND FISH COMMISSION

Peter J. Dube, President

Dated: July 14, 2021

Appendix 2: Furbearer References.

Anderson, S. H., W. A. Hubert, and D. J. Brown. 1996. Beaver ponds create wetland habitat for birds in mountains of southeastern Wyoming**.** Wetlands 16:127-133.

Anderson, S. H., and M. C. McKinstry. 1998. Using snares to live-capture beaver, Castor canadensis. Canadian Field-Naturalist. 112:469-473.

Apple, L.L., Smith, B.H., Dunder, J.D. 1984. The use of beavers for riparian/aquatic habitat restoration of cold desert, gully-cut stream systems in southwestern Wyoming. Proceedings of the Bonneville Chapter of the American Fisheries Society. Utah State University, Feb 8-9, 1984.

Aubry, K. B., W. J. Zielinski, M. G. Raphael, G. Proulx, and S. W. Buskirk, editors. 2012. Biology and conservation of martens, sables, and fishers: a new synthesis. Cornell University Press, New York, New York. 580 pp.

Beck, J. L., D. C. Dauwalter, K. G. Gerow, and G. D. Hayward. 2010. Design to monitor trend in abundance and presence of American beaver (Castor canadensis) at the national forest scale. Environmental Monitoring & Assessment 164:463-479.

Bekoff, M., T. W. Clark, T. M. Campbell, T. Hauptman, and B. D. Roberts. 1989. American marten, Martes americana, home ranges in Grand Teton National Park, Wyoming. Canadian Field-Naturalist 103:423-425.

Ben-David, M., S. D. Newsome, and J. P. Whiteman. 2012. Lipid and amino acid composition influence incorporation and discrimination of ^{13}C and ^{15}N in mink. Journal of Mammalogy 93: 399-412.

Buskirk, S. W., and F. G. Lindzey, editors. 1986. Furbearer Management in Wyoming: A Sourcebook. Research Report 86-01. Wyoming Cooperative Fisheries and Wildlife Research Unit, Laramie, USA.

Buskirk, S. W., H. J. Harlow, and S. C. Forrest. 1988. Temperature Regulation in American Marten (Martes americana) in Winter. National Geographic Research 4:208-218.

Buskirk, S. W., and H. J. Harlow. 1989a. Body-Fat Dynamics of the American Marten (Martes americana) in Winter. Journal of Mammalogy 70:191-193.

Buskirk, S. W., and L. L. McDonald. 1989b. Analysis of Variability in Home-Range Size of the American Marten. Journal of Wildlife Management 53:997-1004.

Buskirk, S. W., S. C. Forrest, M. G. Raphael, and H. J. Harlow. 1989c. Winter Resting Sites Ecology of Marten in the Central Rocky Mountains. Journal of Wildlife Management 53:191-196.

Buskirk, S.W. and C. Osmundson. 1993. Size of food caches as a predictor of beaver colony size.. Wildlife Society Bulletin 21:64-69.

Buskirk, S.W. 2016. Wild Mammals of Wyoming and Yellowstone National Park. University of California Press. Oakland, CA.

Call, M.W. 1966. Beaver pond ecology and beaver-trout relationships in southeastern Wyoming. University of Wyoming and Wyoming Game and Fish Commission. 296 pgs.

Campbell, T. M. 1979. Short-term effects of timber harvest on pine marten ecology. Thesis, Colorado State University, Ft. Collins, USA.

Clark, T. W. 1984. Analysis of pine marten population organization and regulatory mechanisms in Jackson Hole, Wyoming. National Geographic Society Research Report. 1975:131-143.

Clark, T.W., Campbell, T.M., Hauptman, T.N. 1989. Demographic characteristics of American marten populations in Jackson Hole, WY. Great Basin Naturalist 49:587-596.

Collins, T. C. 1976. Population Characteristics and Habitat Relationships of Beavers, Castor canadensis, in Northwest Wyoming. Thesis, University of Wyoming, Laramie, USA.

Cook, H., and Zack, S. American beaver as a keystone engineer of riparian bird habitat in Wyoming. Northwestern Naturalist 2:89-89.

Cook, H. and Zack, S. 2008. Influence of beaver dam density on riparian areas and riparian birds in shrubsteppe of Wyoming. Western North American Naturalist 3:365-373.

Corn, J. G., and M. G. Raphael. 1992. Habitat characteristics at marten subnivean access sites. Journal of Wildlife Management 56:442-449.

Crowe, D. M. 1975. A model for exploited bobcat populations in Wyoming. Journal of Wildlife Management 39:408-415.

Crow, D.M. 1975. Aspects of Ageing, Growth, and Reproduction of Bobcats from Wyoming. Journal of Mammalogy 1:177-198.

Crow, D.M. 1977. Aspects of Reproduction and population dynamics of bobcats in Wyoming. Proceedings: Great Plains, Wildlife Damage Control Workshop 3:41-45.

Dawson, N.G., J Colella, M Small, K Stone, S Talbot and J Cook. 2017. Historical biogeography sets the foundation for contemporary conservation of martens (genus *Martes*) in northwestern North America. Jouranl of Mammalogy 98:715-730.

Dunn, S.B., Rathburn, S.L., and Wohl, E. 2024. Post-fire sediment attenuation in beaver ponds, Rocky Mountains, CO and WY, USA. Earth Surface Processes and Landforms 49:4340-4354.

Elbroch, L., Robertson, L., Combs, K., and Fitzgerald, J. 2017. Contrasting bobcat values. Biodiversity & Conservation 12:2987-2992.

Fecske, D. M., and J. A. Jenks. 2002. Dispersal by a Male American Marten, Martes americana. Canadian Field-Naturalist 116:309-312.

Fecske, D. M. 2003. Distribution and Abundance of American Martens and Cougars in the Black Hills, South Dakota and Wyoming. Dissertation, South Dakota State University, Brookings, USA.

Goodrich, J. M. 1994. North American Badgers and Black-footed Ferrets: Abundance, Rarity and Conservation in a White-tailed Prairie Dog Community. Dissertation, University of Wyoming, Laramie, USA.

Goodrich, J.M. and S. Buskirk. 1998. Spacing and ecologyof North American badgers in a prairie dog complex. Journal of Mammalogy 79:171-179.

Grasse, J. E., and E. F. Putnam. 1955. Beaver Management and Ecology in Wyoming, 2nd edition. Wyoming Game and Fish Commission Bulletin #6, Cheyenne, USA.

Harlow, H.J. 1979. Adaptations by the badger to food deprivation and coid. Journal of the Colorado-Wyoming Academy of Sciences 11:85.

Harlow, H.J. 1981. Effect of fasting on rate of food passage and assimilation efficiency in badgers. Journal of Mammalogy 62:173-177.

Harlow, H. J., and S. W. Buskirk. 1991. Comparative Plasma and Urine Chemistry of Fasting White-tailed Prairie Dogs (Cynomys leucurus) and American Marten (Martes americana): Representative Fat- and Lean-bodied Animals. Physiological Zoology 64:1262-1278.

Hauptman, T. N. 1979. Spatial and temporal distribution and feeding ecology of the pine marten. Thesis, Idaho State University, Pocatello, USA.

Henry, S.E., Ruggiero, L.F., Thompson, I.D. 1994. Den use and kit development of marten in Wyoming. Proc. XXI Int. Union Game Biol. Congress, Forests and Wildlife.... Towards the 21st Century. 5 p.

Holloran, M. J., and S. H. Anderson. 2003. Direct Identification of Northern Sage-grouse, Centrocercus urophasianus, Nest Predators Using Remote Sensing Cameras. Canadian Field-Naturalist 117:308-310.

Krear, H. R. 1953. An ecological study of the muskrat in the Laramie area. Thesis, University of Wyoming, Laramie, USA.

Jin, Li, D. I. Siegel, L. K. Lautz, and M. H. Otz. 2009. Transient storage and downstream solute transport in nested stream reaches affected by beaver dams. Hydrological Processes 23:2438-2449.

McKinstry, M. C., and S. H. Anderson. 1999. Attitudes of private-and public-land managers in Wyoming, USA, toward beaver. Environmental Management 23:95-101.

McKinstry, M.C., Caffrey, P., and Anderson S.H. 2001. The importance of beaver to wetland habitats and waterfowl in Wyoming. Journal of American Water Resources Association 37:1571-1578.

McKinstry, M. C., and S. H. Anderson. 2002. Survival, Fates, and Success of Transplanted Beavers, Castor canadensis, in Wyoming. Canadian Field-Naturalist 116:60-69.

McKinstry, M. C., and S. H. Anderson. 2003. Trappers in Wyoming: opinions on trends in mammalian predator populations, motivations for trapping, and methodologies. Intermountain Journal of Sciences 9:1-11.

Mezquida, E. T., S. J. Slater, and C. W. Benkman. 2006. Sage-grouse and indirect interactions: potential implications of coyote control on Sage-grouse populations. Condor 108:747-759.

Minta, K. A., and S. C. Minta. 1991. Partners in Carnivory. Natural History 100:60-63.

Minta, S.C., K. Minta and D. Lott. 1992. Hunting associations between badgers and coyotes. Journal of Mammalogy 73:814-820.

Minta, S.C. 1990. The badger, Taxidea taxus (Carnivora: mustelidae): spatial-temporal analysis, dimorphic territorial polygyny, population characteristics, and human influences on ecology. Ph.D. dissertation, Univ. Calif. (Davis); 317p.

Minta, S.C. 1993. Sexual differences in spatio-temporal interaction among badgers. Oecologia 96:402-409.

Murie, A. 1961. Some food habits of the pine marten. Journal of Mammalogy 42:516-521.

Murphy, S.M., Eriksen-Meier, S., Robertson, L., and Elbroch, L.M. 2022. Is unreliable science guiding bobcat management in Wyoming and other western U.S. states? Ecological Solutions & Evidence 1:1-6.

ODoherty, E.C., Ruggiero, L.F., Henry, S.E., Proulx, G. 1997. Home-range size and fidelity of American martens in the Rocky Mountains of southern Wyoming. Martes: taxonomy, ecology, techniques, and management. Provincial Museum of Alberta, Edmonton 12 pages.

Osborn, D. J. 1949. A study of age classes, reproduction, and sex ratios of beaver in Wyoming. Thesis, University of Wyoming, Laramie, USA.

Osborn, D. J. 1955. Techniques of sexing beaver, Castor canadensis. Journal of Mammalogy 36:141-142.

Osmundson, C. L. 1990. Dynamics of Beaver Food Caches and Cache Size as a Predictor of Colony Size in Wyoming. Thesis, University of Wyoming, Laramie, USA.

Pauli, J. N., M. Ben-David, S. W. Buskirk, J. E. DePue, and W. P. Smith. 2009. An isotopic technique to mark mid-sized vertebrates non-invasively. Journal of Zoology 278:141-148.

Rothmeyer, S.W., M. McKinstry and S. Anderson. 2002. Tail attachment of modified ear-tag radio transmitters on beavers. Wildlife Society Bulletin 30:425-429.

Ruggiero, L. F., K. B. Aubry, S. W. Buskirk, L. J. Lyon, W. J. Zielinski, editors. 1994. The scientific basis for conserving forest carnivores. American marten, fisher, lynx, and wolverine in the western United States. U. S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Ft. Collins, Colorado, USA.

Ruggiero, L. F., D. E. Pearson, and S. E. Henry. 1998. Characteristics of American marten den sites in Wyoming. Journal of Wildlife Management 62:663-674.

Sanders, L.E. and A. Chalfoun. 2019. Mechanisms underlying increased nest predation in natural gas fields: a test of the mesopredator release hypothesis. Ecosphere 10:

Sherburne, S. S. 1992. Marten use of subnivean access points in Yellowstone NP, Wyoming. Unpublished M.S. thesis, Utah State University, Logan, Utah. ix,37 p. figs.; 1992.

Sherburne, S. S., and J. A. Bissonette. 1993. Squirrel middens influence marten (Martes americana) use of subnivean access points. American Midland Naturalist 129:204-207.

Smith, Michael, J. C. Adams, Q. D. Skinner, and J. E. Speck, Jr. 1984. Stream water quality as influenced by beaver within grazing systems **in** Wyoming. Journal of Range Management 37:142-146.

Taylor, S. L. 1993. Thermodynamics and Energetics of Resting Site Use by the American Marten (*Martes americana*). Thesis, University of Wyoming, Laramie, USA.

Wade, J et al. 2020. Beaver dam analogues drive heterogeneous groundwater–surface water interactions. Hydrologic Processes 34:5340-5353.

Wilbert, C. J. 1992. Spatial Scale and Seasonality of Habitat Selection by Martens in Southeastern Wyoming. Thesis, University of Wyoming, Laramie, USA.

Wilbert, C.J., Buskirk, S.W., and Gerow, K.G. Effects of weather and snow on habitat selection by American martens (Martes americana). Canadian Journal of Zoology 78:1691-1696.

Williges, W.A. 1946. A beaver survey on the Pole Mountain Division of the Medicine Bow National Forest. Unpublished M.S. Thesis, University of Wyoming.

Zielinski, W. J., and T. E. Kucera, editors. 1995. American marten, fisher, lynx, and wolverine: survey methods for their detection. U. S. Forest Service, Pacific Southwest Research Station, Albany, California, USA.