Status of the
Amended Salmon-Challis National Forest Plans
Management Indicator Species
Greater Sage-Grouse

November 2004

Introduction

Greater sage-grouse are native to western North America, historically occurring within the eleven western states that have extensive areas of sagebrush steppe communities meeting their habitat requirements. Greater sage-grouse have been extirpated in Arizona, British Columbia, Kansas, Nebraska, New Mexico, and Oklahoma. On the Salmon-Challis Forest, greater sage-grouse and/or formerly occupied habitat occurs across the forest and on adjacent BLM and some private lands. These large grouse are totally dependent on sagebrush/grassland vegetation to meet their habitat requirements. Some populations migrate to seasonally important ranges some do not. Despite some wide-ranging annual movements, greater sage-grouse have high fidelity to seasonal ranges for breeding (leks), nesting and wintering and need extensive areas of native sagebrush/grassland year-round. An abundant native grass/forb component within sagebrush/grassland communities is important, especially during the brood-rearing period. In summer, shrubs are used for cover while various grasses and forbs are used as food, as are many of the insect species supported by them. During winter, sagebrush that protrudes above snow accumulations actually defines potential wintering areas because sagebrush leaves are used exclusively as food.

Habitat Distribution

Total acres and potential vegetation types comprising the upland non-forested community/habitat types and distribution of these community/habitat type are displayed in Table 2 and Figure 1.

The greater sage-grouse use a variety of non-forested habitats on a seasonal basis. Three general seasonal periods are critical to sage-grouse. Breeding includes lek attendance where breeding occurs, nesting, and early brood rearing. Breeding habitat includes generally open, often unvegetated areas where leks are located, low elevation tall sagebrush with abundant herbaceous species for nesting cover, and meadows and riparian areas supporting forbs and insects for food. Summer includes late brood rearing and summer habitat at mid to upper elevations comprised of sagebrush cover, forbs, and insects. Winter includes over wintering habitat typically located on the lower foothills and windswept ridges where the primary food source is comprised almost solely of sagebrush.

Monitoring Protocols

Greater sage-grouse populations in Idaho and throughout the western United States have been in decline for over 40 years. The Idaho Department of Fish and Game (IDFG) began monitoring greater sage-grouse populations over 50 years ago using a variety of techniques. Monitoring has included recording a chance bird observation during any season of the year to more formalized quantitative bird counts within specific habitats and seasons (i.e. brood rearing within riparian areas). More repeatable and consistent bird count methods were developed in the early 1960s with the establishment of travel routes and counting male birds occupying leks in the early spring during mating season. Some routes have been dropped while others have been added over the years. Lek travel routes lie almost exclusively on BLM, Idaho State lands, or on undeveloped private lands. The only exception are two leks lying close to the Forest boundary, one in Cherry Creek (Gooseberry Creek route) and one on the Lower Big Lost route. The Idaho Department of Fish and Game coordinate the lek counts each spring with other land management agencies (BLM, USFS, Idaho Department of State Lands). The data is supplied to the Fish and Game where it is entered into an Excel spreadsheet database.

The Salmon and the Upper Snake Regions of the Idaho Fish and Game follow established monitoring protocols of making spring bird counts along established lek routes. Male sage-grouse are counted occupying leks along the established route. Lek locations and levels of activity vary considerably from year to year but trends of grouse populations can be inferred by the relative activity within a route, and at a broader scale collectively among several routes. These protocols are shown in Enclosure 1. A sample field form is also presented in Enclosure 2.

Data Evaluation

Idaho Department of Fish and Game

The Salmon Region of the Fish and Game maintains 9 routes containing approximately 31 leks:

- Upper (southern) Lemhi- Clear Creek, 10-mile, Skelton Ranch, Hawley Creek, Gravel Pit, Whittaker Ranch, and Garner Ranch;
- Middle Lemhi- Agency Creek, Zeph Creek, McDevitt Creek, and Berg-Green;
- Lower (north) Lemhi- L3, L4, and L5;
- Lower Pahsimeroi- Morse Creek and Meadow Creek;
- Upper Pahsimeroi- Pahsimeroi #s 4,6, and 7;

The two Pahsimeroi routes were established in 2002, therefore lacking long term data but with established baseline data.

- Stanley- established several years ago with the reintroduction of sage-grouse, however, these birds did not stay in the area.
- Deer Gulch- Deer Gulch, Dry Gulch 2, SG26, and SG12;
- Little Hat Creek- Little Hat Creek, Ellis Creek, and SG14;
- Gooseberry Creek- Spring Gulch, Cherry Creek, SG1, SG3, and SG5;

The Deer Gulch, Little Hat Creek, and Gooseberry Creek routes have been re-established as monitoring routes in 2004 after several years of inconsistent reporting of individual leks.

The Upper Snake Region maintains approximately 22 routes of which only 5 are in the vicinity of the S-C National Forest; Upper Big Lost, Lower Big Lost, Antelope Creek Big Lost, Little Lost, and Upper Birch Creek. Approximately 30 leks are included within the 5 routes. The bird count data is summarized and displayed by year for each route in Enclosure 3.

Conservation Assessment

A comprehensive Conservation Assessment of greater sage-grouse and sagebrush habitats (Connelly et al. 2004) was compiled by the Western Association of Fish and Wildlife Agencies. This presently unpublished document provides in depth discussions on the background of the greater sage-grouse and their habitats, the ecology of sage-grouse and sagebrush habitats, the current situation and trends in greater sage-grouse populations with validation of using lek counts to assess populations and trends, and the integration of population and habitat information into a synthesis of the conservation status for greater sage-grouse and the sagebrush ecosystems in western North America.

The Conservation Assessment (CA) identified 40 populations and 24 subpopulations of greater sage-grouse throughout seven regions within eleven western states and two Canadian Provinces. Population trend data using lek counts was compiled at the State level, the population level and at the subpopulation level. The Snake/Salmon/Beaverhead population includes the Salmon-Challis National Forest and is more finely represented by three subpopulations; Big Lost, Lemhi-Birch, and Little Lost.

The CA identified Sawtooth population stands alone located near Stanley, ID and is associated with the IDFG Stanley route. No birds have been seen in this area since the early 1990s. The CA did not identify any sage-grouse populations for study north of Challis, ID along the Salmon River which would be associated with the IDFG Deer Gulch, Little Hat Creek, and Gooseberry Creek routes.

The CA subpopulations are located as follows: Big Lost subpopulation located in the Big Lost River and Willow Creek valleys; the Lemhi-Birch subpopulation located in the Lemhi River and Birch Creek valleys; the Little Lost subpopulation located in the Lost River and Pahsimeroi River valleys. The subpopulations identified in the CA do not exactly parallel the lek routes identified by the Salmon or Upper Snake Regions of the Fish and Game. The Salmon Region includes the Lemhi portion of the Lemhi-Birch subpopulation and the Pahsimeroi River portion of the Little Lost subpopulation. The Upper Snake Region includes the Big Lost portion of the Big Lost subpopulation, the Upper Birch portion of the Lemhi-Birch subpopulation, and the Little Lost River portion of the Little Lost subpopulation. Nonetheless, the overall population trends assessed through the CA and those assessed through the Fish and Game Regional data are similar. The Conservation Assessment used regression analysis to determine long-term population trends from lek count data (number of male birds occupying leks) spanning over 40 years. Short-term trends can be interpreted from more recent data covering the last decade. The table below shows a summary of population trends from both the Conservation Assessment data and the Regional Fish and Game lek route data.

Table 1 – Summary of Population Trends of Subpopulations (Conservation Assessment) and Lek Routes (Salmon and Upper Snake IDFG Regions)

Conservation Assessment			Salmon Region			Upper Snake Region		
Subpop-ulation	**Long-term**	**Short-term**	**Route(s)**	**Long-term**	**Short-term**	**Route(s)**	**Long-term**	**Short-term**
Big Lost	down	down				Upper/Lower Big Lost	no data	down
Lemhi-Birch	down	up	Upper, Middle, Lower Lemhi	down	up	Upper Birch	static	up
Little Lost	static	up	Pahsimeroi	no data	no data	Little Lost	down	static

Conclusion

There is considerable long-term historical data regarding populations of greater sage-grouse through bird counts on leks. Bird counts are quite variable from one year to the next on the same lek and across the route. Many routes show consistent declines for several years then consistent increases in numbers up to and often surpassing previous counts. During the same time interval some routes seem to be more stable. The extent and degree of these broad cyclic variations are likely the result of several interacting factors such as environmental conditions (climatic extremes), habitat alteration (grazing, fire, drought, agriculture and homestead expansion), predation (including hunting), and disease, either individually or cumulatively.

The Conservation Assessment data indicates that a long term decline in lek occupancy and sage-grouse populations began in the early 1960s and continued into the mid 1980s. Since the mid to late 1980s a gradual increase in populations has occurred or a stabilization of the decline has occurred.

Regionally speaking, the IDFG Salmon Region showed a peak in activity on leks in the mid to late 1980s followed by a gradual decline into the mid 1990s. Bird numbers on active leks seem to be increasing over the last several years. Similar trends have occurred in the Upper Snake Region. The number of active leks also shows considerable variation from year to year with some leks being temporarily abandoned while other previously unused areas becoming active.

Habitat and Population Trends

Although breeding habitat exists on the on the lower elevations of the Forest, there are no known active leks or nesting sites within the Forest boundary. It is doubtful that management activities occurring on the

Forest directly affect breeding habitat. However, management activities may indeed affect summer brood rearing habitat, and winter habitat through altered hiding cover and forage availability. Management activities include livestock grazing, vegetation manipulation projects (prescribed and wildland fire management, livestock forage treatments), structural projects (fences), mining activities, road development, and other multiple use activities. It is inferred that population trends derived from lek counts are the result of multiple interactions and affects between management activities, environmental conditions, and natural events that are occurring throughout the sage-grouse life cycle.

Activities on the Forest would most likely affect the summer and winter ranges of sage-grouse rather than the early season breeding habitats. Artificial habitat manipulation by mechanically altering sagebrush communities has not occurred in many years and is not likely to occur in the future. Prescribed fire projects designed to reduce fuel loads and return non-forested shrub community types to a more historic fire regime are possible on the Forest. These projects are designed in locations where the existing sagebrush cover has well exceeded its normal range of variability and understory herbaceous species are being suppressed.

Efforts have been made in recent years to identify guidelines as key indicators of adequate sage-grouse habitat (Connelly et al. 2000, Connelly et al. 2004). These habitat indicators focus on sagebrush heights and canopy cover within all sage-grouse life stage habitats and herbaceous heights and canopy cover primarily on breeding habitat. Appropriate sage-grouse summer and winter habitat conditions are widespread across the Forest. Upland sagebrush/grassland community types are generally in good condition with static or improving trends supporting adequate herbaceous and sagebrush cover primarily due to the efforts made in improved livestock management over the last several decades. Summer and winter habitat conditions are not at present considered limiting sage-grouse occupancy or productivity.

The summarized monitoring results are attached in Enclosure 3 for both the Salmon and Upper Snake IDFG Regions in table and graph format showing the lek route count data. Also included are population and subpopulation data summaries from the Conservation Assessment.

References

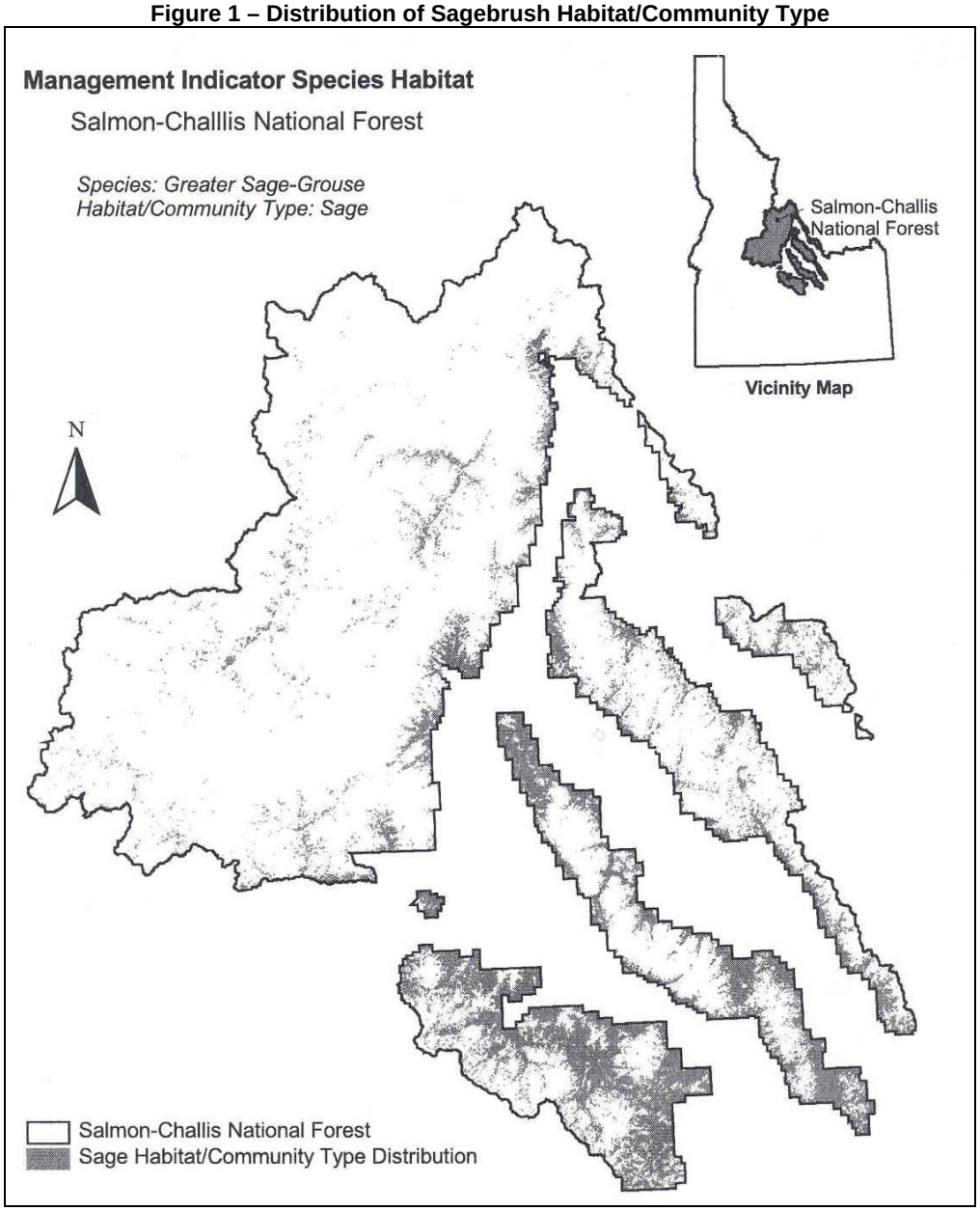
Connelly, J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildlife Society Bulletin 28 (4):967-985.

Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver. 2004. Conservation Assessment of greater sage-grouse and sagebrush habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.

Table 2 – Sagebrush Habitat/Community Type on the Salmon-Challis National Forest

GIS PVT Layer Designation	Acres
Black Sage	17,879
Bunchgrass / Fescue	18,312
Low Sage	14,490
Mountain Big Sage	244,518
Mountain Mahogany	49,452
Mtn. Big Sage w/ conifer	178,648
Shadscale	614
Threetip Sage	22,453
Wyoming Big Sage	87,571
Total Acres	**633,937**

Figure 1 – Distribution of Sagebrush Habitat/Community Type



LEK ROUTE INSTRUCTIONS (2003)

General Instructions

- All lek route participants should take lek route training (available at region office).
- Count each route 4 times per spring.
- All leks along a route must be counted on the same morning.
- Run route from ½ hour before sunrise to 1 hour after sunrise.
- All 4 routes should be run by the same observer.
- Space routes roughly 10 days apart.
- Begin March 25 and run through 30 April for low elevation areas.
- Begin April and run through May 10 for high elevation areas.
- Conduct lek routes only during good weather (clear to partly cloudy, winds <10 kph).
- Drive < 25 mph along route between leks.
- Count all leks observed along route.
- If weather deteriorates during a lek route, the route must be run again.

Specific Lek Location Instructions

- If a lek is not occupied, turn off engine, step out of vehicle and listen for displaying birds.
- Locate a spot that provides good visibility of entire lek (2-3 observation points may be necessary for a large lek).
- Record time that count begins and ends.
- Count birds from right to left, wait 1-2 minutes.
- Count birds from left to right, wait 1-2 minutes.
- Count birds from right to left.
    - Record highest number of males and females, separately.
    - Proceed to the next lek.
- If no birds are present, record a 0, do not leave a space blank.

SAGE and SHARP-TAIL GROUSE
Lek Route Survey

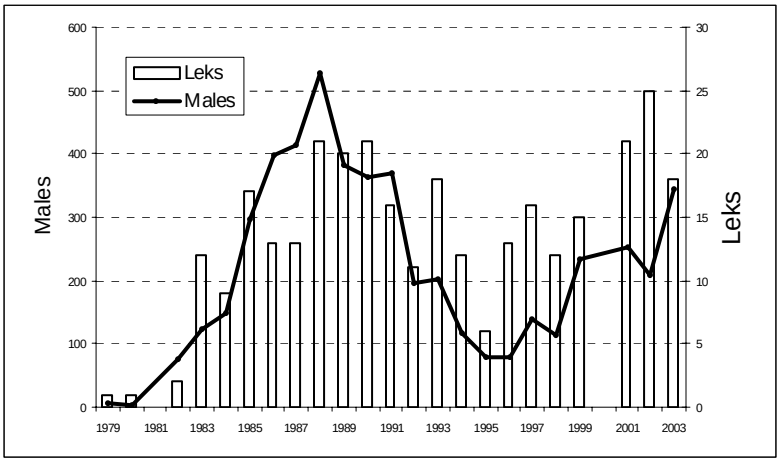
Sage Grouse **Sharp-tail grouse** **County:**

Lek Route Name:_____ **Date of Survey:**_____**, 20**____
Observer:_____ **Starting Time:**_____**; End:**_____
Weather:_____ **Males Counted:**_____

Time	Lek No.	Males	Females	Latitude	Longitude	Comments
Total						

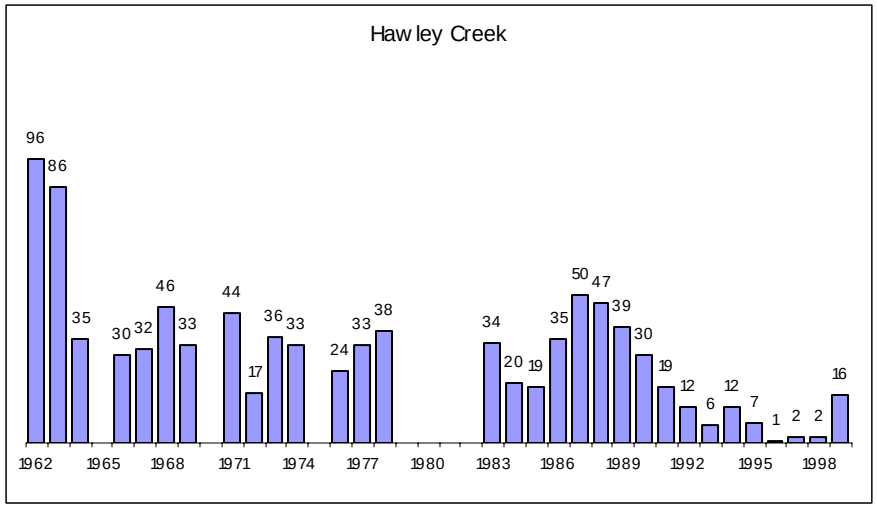
Peak Male Greater Sage-Grouse Counts And Leks Counted in the Salmon Region

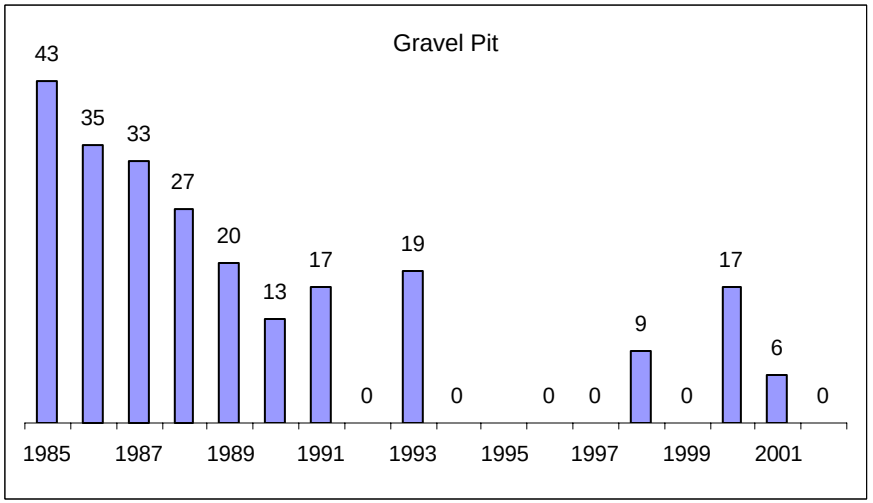
Year	Leks	Males
1979	1	5
1980	1	2
1981		
1982	2	77
1983	12	124
1984	9	150
1985	17	298
1986	13	399
1987	13	415
1988	21	527
1989	20	381
1990	21	362
1991	16	371
1992	11	195
1993	18	201
1994	12	117
1995	6	79
1996	13	78
1997	16	138
1998	12	114
1999	15	235
2000		
2001	21	252
2002	25	209
2003	18	344

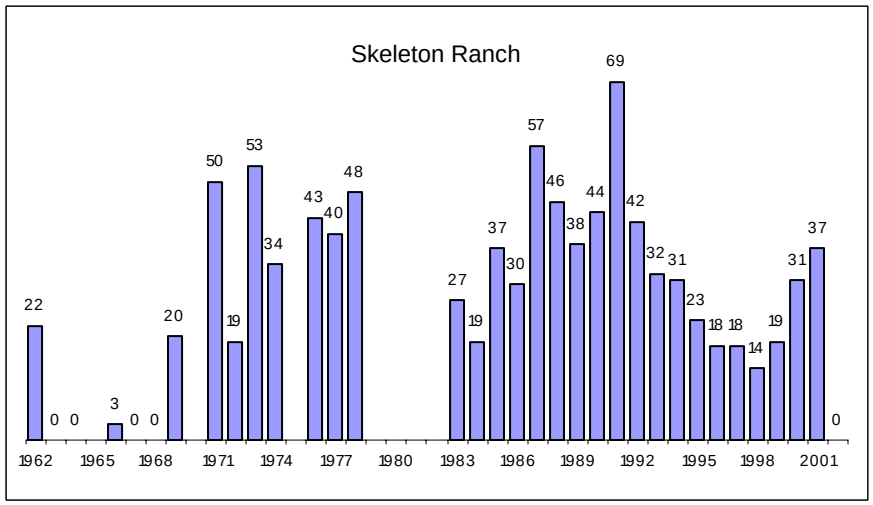


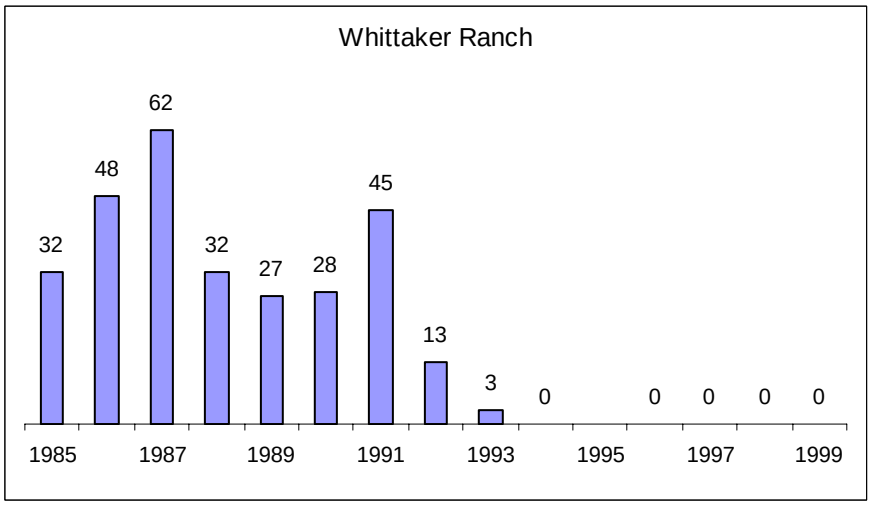
Male Bird Counts on South Lemhi Leks by Year

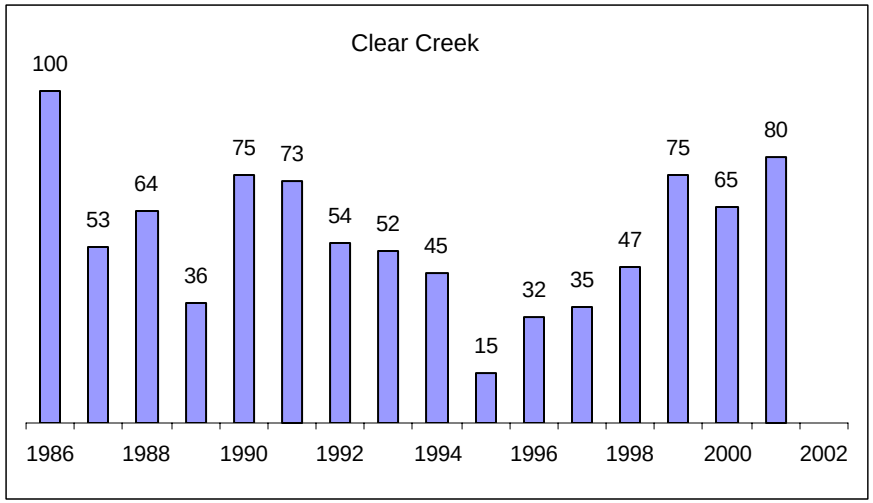
	L-1	L-2	L-2A	L-2B	L-2C	L-2D	L-2E	
	HAWLEY CR.	SKELTON RANCH	GRAVEL PIT	WHITTAKER R.	CLEAR CR.	TENMILE CR.	GARNER RANCH	Total
1962	96	22						118
1963	86	0						86
1964	35	0						35
1965								
1966	30	3						33
1967	32	0						32
1968	46	0						46
1969	33	20						53
1970								
1971	44	50						94
1972	17	19						36
1973	36	53						89
1974	33	34						67
1975								
1976	24	43						67
1977	33	40						73
1978	38	48						86
1979								
1980								
1981								
1982								
1983	34	27						61
1984	20	19						39
1985	19	37	43	32				131
1986	35	30	35	48	100	32		280
1987	50	57	33	62	53	67		322
1988	47	46	27	32	64	43	18	277
1989	39	38	20	27	36	37	17	214
1990	30	44	13	28	75	21	8	219
1991	19	69	17	45	73	13	9	245
1992	12	42	0	13	54	16	15	152
1993	6	32	19	3	52	8	0	120
1994	12	31	0	0	45	2	0	90
1995	7	23			15	0		45
1996	1	18	0	0	32	0	0	51
1997	2	18	0	0	35	0		55
1998	2	14	9	0	47	0	0	72
1999	16	19	0	0	75	0		110
2000	39	31	17	0	65	0	0	152
2001	15	37	6	8	80	9	0	155
2002		data by	lek not	available				137
2003		data by	lek not	available				131

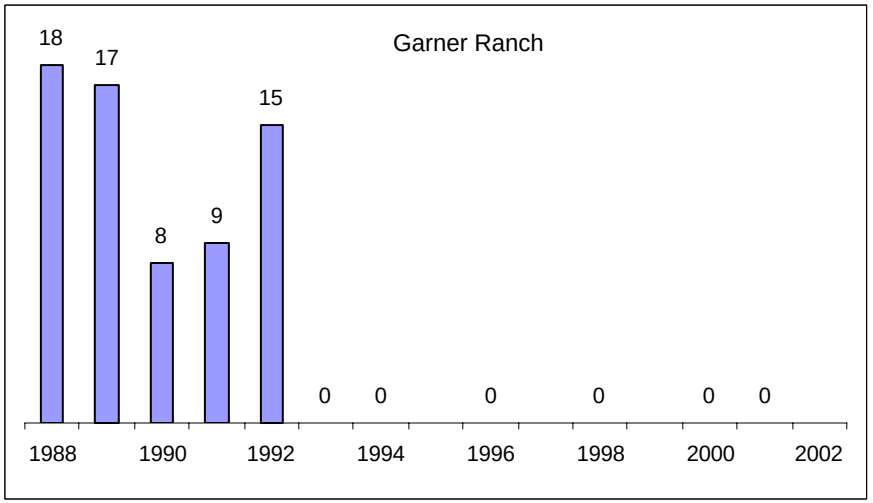

Hawley Creek
96 86 35 30 32 46 33 44 17 36 33 24 33 38 34 20 19 35 50 47 39 30 19 12 6 12 7 1 2 2 16
1962 1965 1968 1971 1974 1977 1980 1983 1986 1989 1992 1995 1998

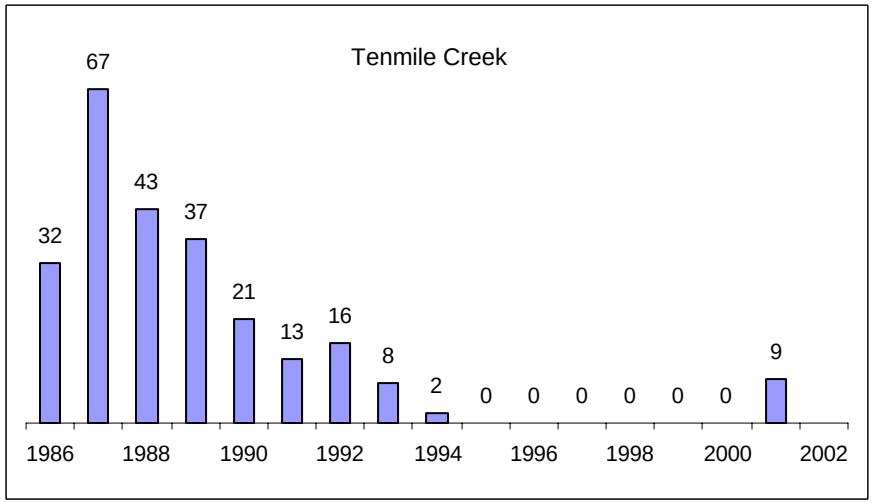

Gravel Pit
43 35 33 27 20 13 17 0 19 0 0 0 9 0 17 6 0
1985 1987 1989 1991 1993 1995 1997 1999 2001


Skeleton Ranch
22 0 0 3 0 0 20 50 19 53 34 43 40 48 27 19 37 30 57 46 38 44 69 42 32 31 23 18 18 14 19 31 37 0
1962 1965 1968 1971 1974 1977 1980 1983 1986 1989 1992 1995 1998 2001


Whittaker Ranch
32 48 62 32 27 28 45 13 3 0 0 0 0 0
1985 1987 1989 1991 1993 1995 1997 1999

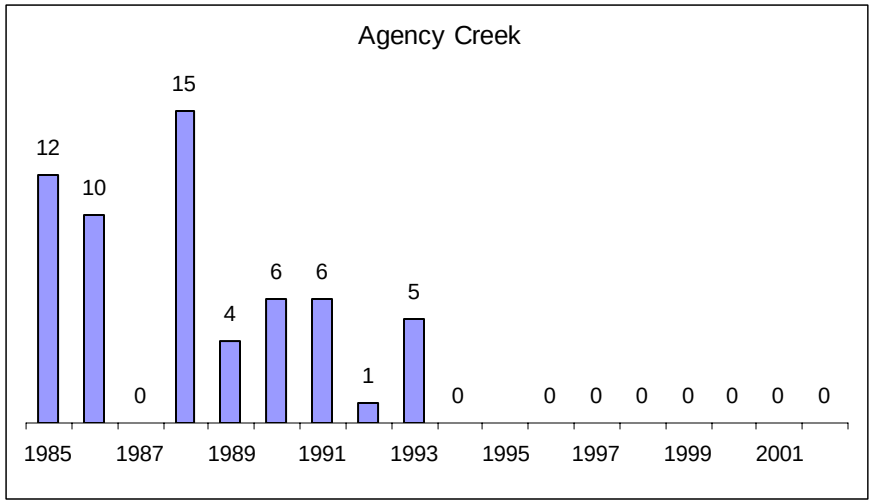

Clear Creek
100
53
64
36
75
73
54
52
45
15
32
35
47
75
65
80
1986
1988
1990
1992
1994
1996
1998
2000
2002


Garner Ranch
18
17
8
9
15
0
0
0
0
0
0
1988
1990
1992
1994
1996
1998
2000
2002


Tenmile Creek
32
67
43
37
21
13
16
8
2
0
0
0
0
0
0
9
1986
1988
1990
1992
1994
1996
1998
2000
2002

Male Bird Counts on Mid-Lemhi Leks by Year

	L-6	L-7	L-8	L-9	
	Agency Creek	Zeph Creek	McDevitt Creek	Berg-Green	Total
1985	12	22			34
1986	10	25	19		54
1987	0	18	12	17	47
1988	15	17	15	16	63
1989	4	15	12	12	43
1990	6	14	12	8	40
1991	6	22	12	5	45
1992	1	20	16	6	43
1993	5	12	20	0	37
1994	0	12	14	1	27
1995					
1996	0	11	9	0	20
1997	0	15	11	0	26
1998	0	11	15	0	26
1999	0	14	32	0	46
2000	0	21	21	0	42
2001	0	16	2	0	18
2002	0	13	28	0	41
2003	data by	lek not	available		35


Agency Creek
12
10
0
15
4
6
6
1
5
0
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0
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1985
1987
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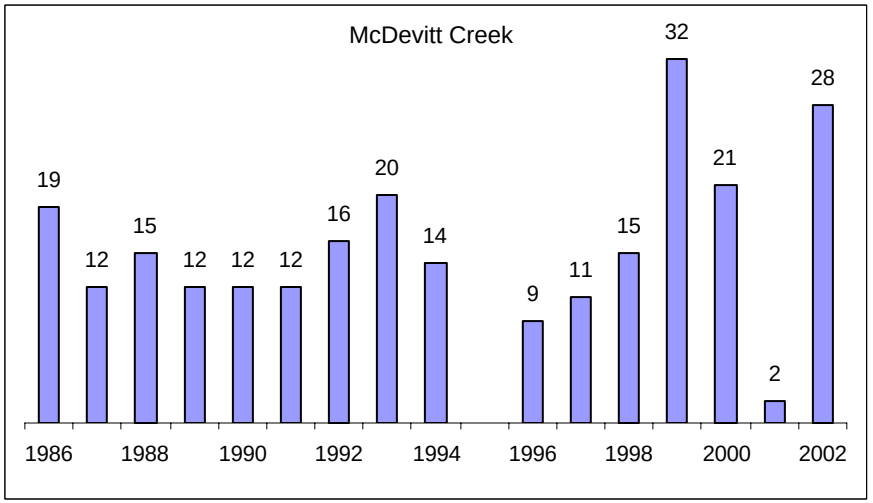
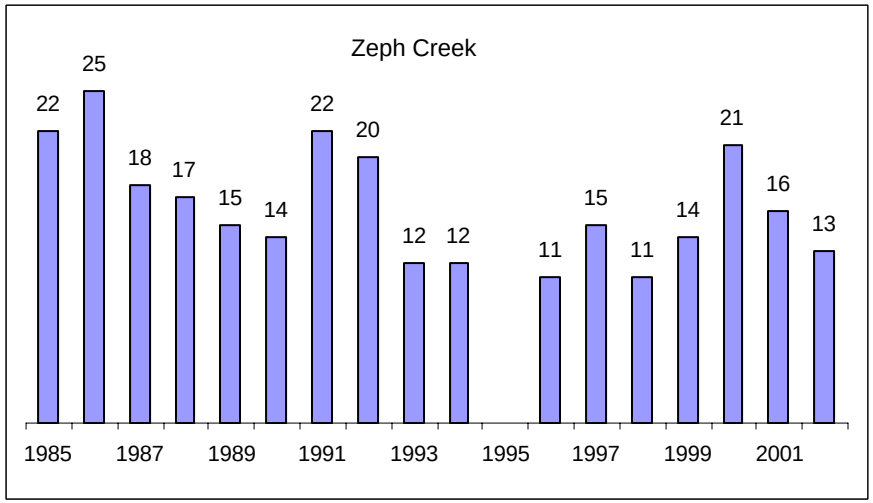
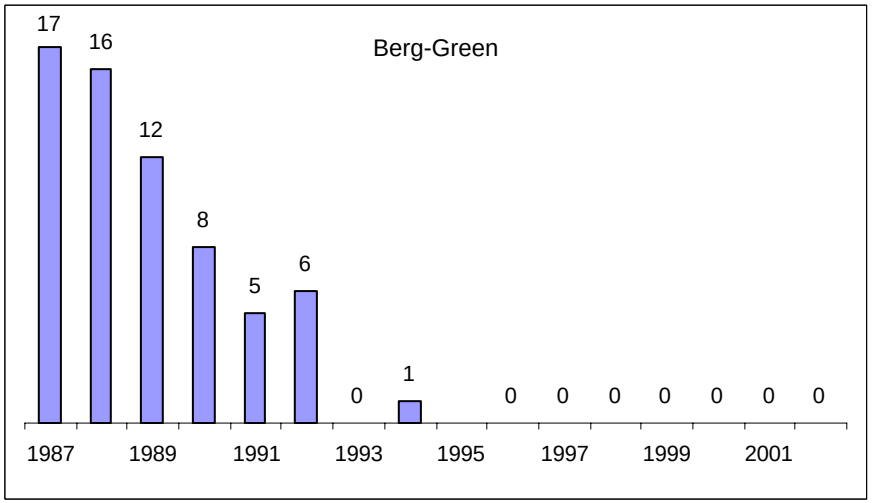
1999
2001

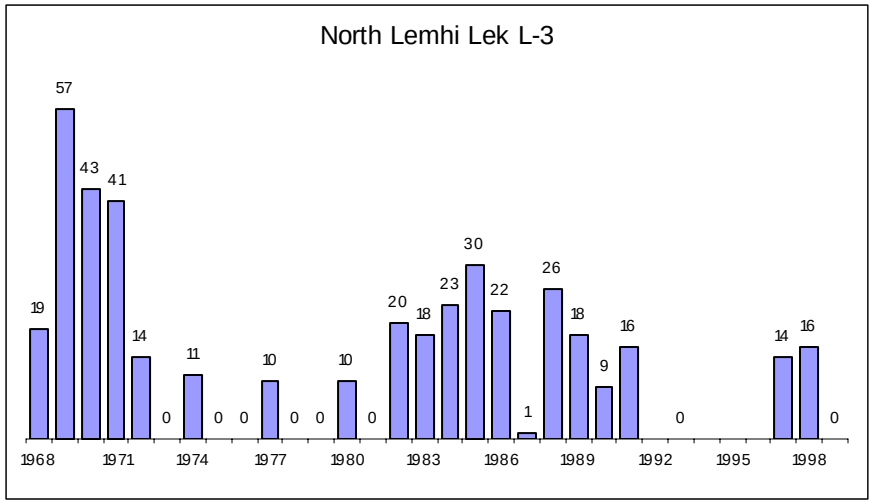

McDevitt Creek
19
12
15
12
12
12
16
20
14
9
11
15
32
21
2
28
1986
1988
1990
1992
1994
1996
1998
2000
2002

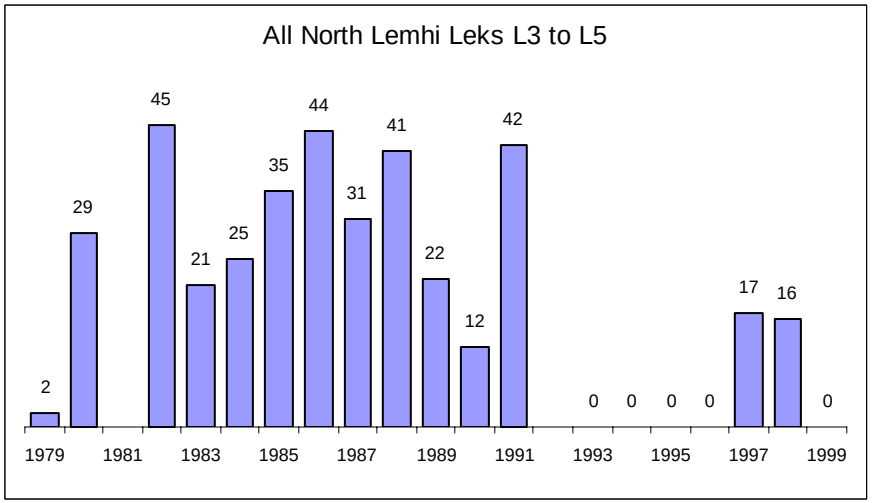

Zeph Creek
22
25
18
17
15
14
22
20
12
12
11
15
11
14
21
16
13
1985
1987
1989
1991
1993
1995
1997
1999
2001

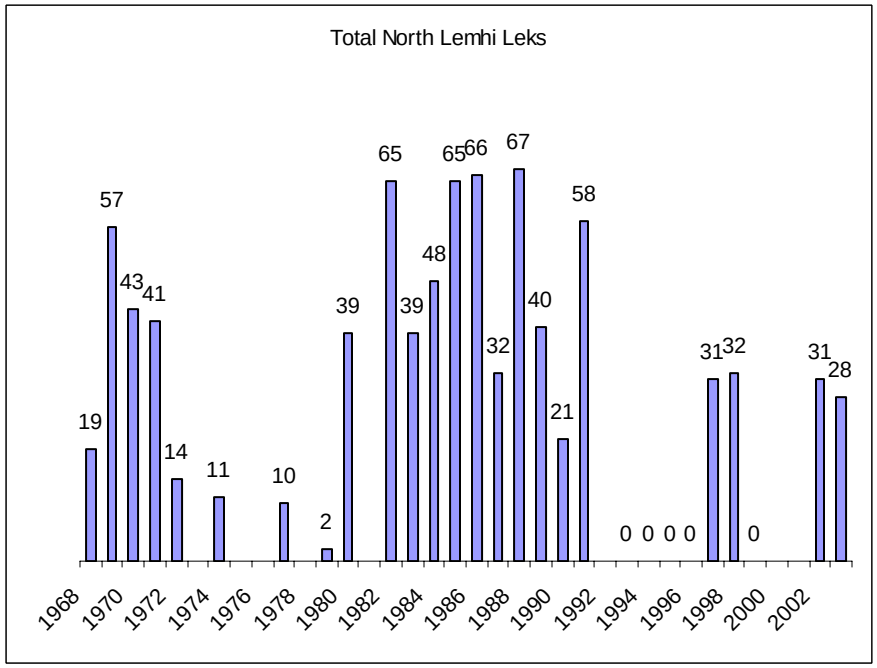

Berg-Green
17
16
12
8
5
6
0
1
0
0
0
0
0
0
0
1987
1989
1991
1993
1995
1997
1999
2001

Male Bird Counts on North Lemhi Leks by Year

	L-3	L-3 to L-5	Total
1968	19		19
1969	57		57
1970	43		43
1971	41		41
1972	14		14
1973			
1974	11		11
1975			
1976			
1977	10		10
1978			
1979		2	2
1980	10	29	39
1981			
1982	20	45	65
1983	18	21	39
1984	23	25	48
1985	30	35	65
1986	22	44	66
1987	1	31	32
1988	26	41	67
1989	18	22	40
1990	9	12	21
1991	16	42	58
1992			
1993	0	0	0
1994		0	0
1995		0	0
1996		0	0
1997	14	17	31
1998	16	16	32
1999	0	0	0
2000			
2001			
2002	data by lek	not avail	31
2003	data by lek	not avail	28


North Lemhi Lek L-3
19 57 43 41 14 0 11 0 0 10 0 0 10 0 20 18 23 30 22 1 26 18 9 16 0 14 16 0
1968 1971 1974 1977 1980 1983 1986 1989 1992 1995 1998


All North Lemhi Leks L3 to L5
2 29 45 21 25 35 44 31 41 22 12 42 0 0 0 0 17 16 0
1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999


Total North Lemhi Leks
19 57 43 41 14 11 10 2 39 65 39 48 65 66 32 67 40 21 58 0 0 0 0 31 32 0 31 28
1968 1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002

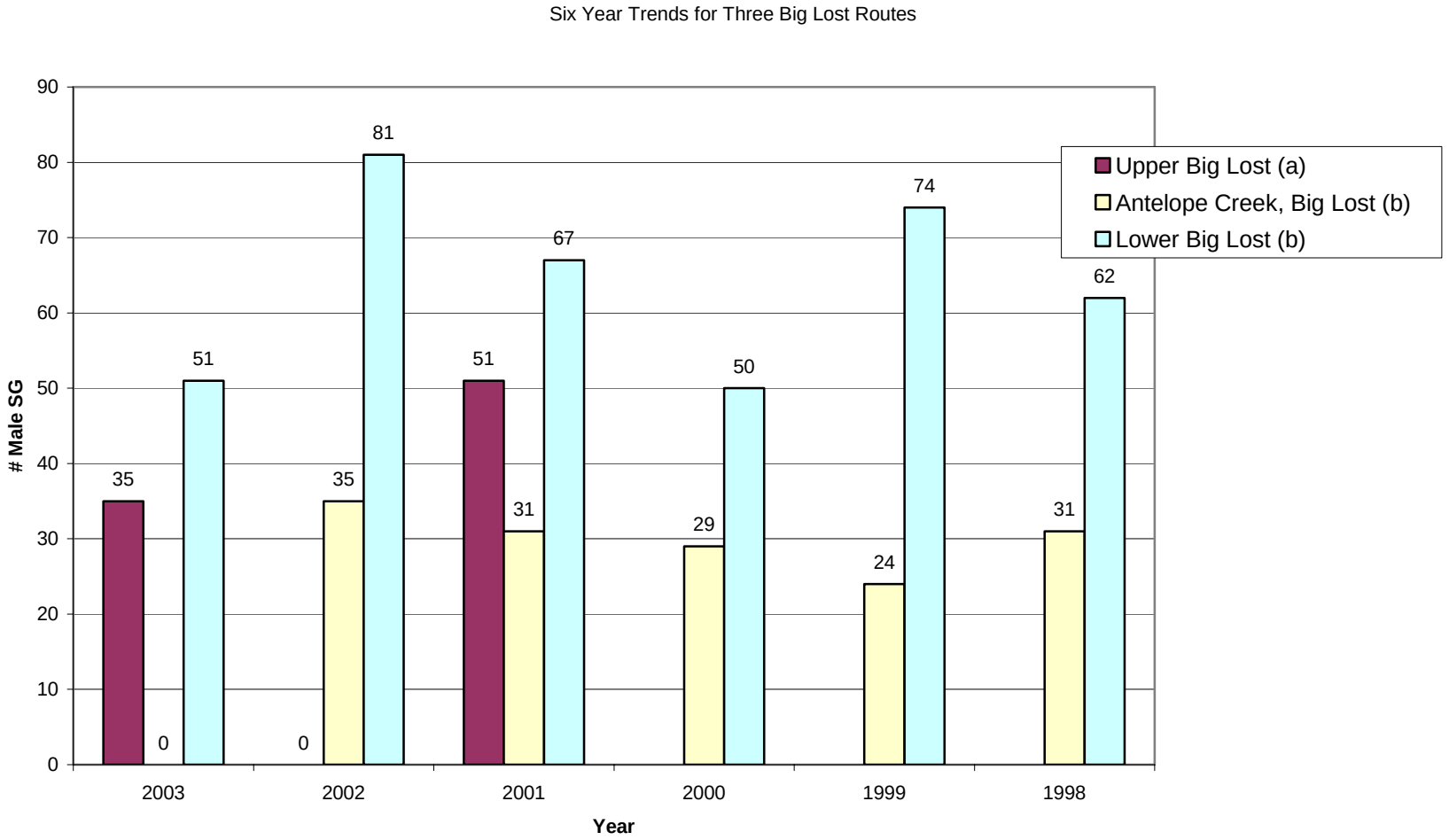
Maximum Male Sage-Grouse Counts for Upper Snake Sage-Grouse Lek Routes: Salmon-Challis NF

Route Name	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
Upper Big Lost (a)	35	N/C	51										
Antelope Creek, Big Lost (b)	N/C	35	31	29	24	31							
Lower Big Lost (b)	51	81	67	50	74	62							
Little Lost	81	109	115	157	131	67	77	48	79	57	57	87	126
Upper Birch Creek	25	12	22	19	17	11	13	8	4	0	0	0	3
	1990	**1989**	**1988**	**1987**	**1986**	**1985**	**1984**	**1983**	**1982**	**1981**	**1980**	**1979**	**1978**
Upper Big Lost (a)													
Antelope Creek, Big Lost (b)													
Lower Big Lost (b)													
Little Lost	90	102	200	194	122	268	174	148	171	224	309	256	199
Upper Birch Creek	26	13	N/C	32	40	31	N/C	1	N/C	N/C	36	28	23
	1977	**1976**	**1975**	**1974**	**1973**	**1972**	**1971**	**1970**	**1969**	**1968**	**1967**	**1966**	**1965**
Upper Big Lost (a)													
Antelope Creek, Big Lost (b)													
Lower Big Lost (b)													
Little Lost	179	312	129	250	227	156	230	402	538	319	206	164	N/C
Upper Birch Creek	60	57	N/C	22	20	36	61	64	72	109	121	83	135
	1964	**1963**	**1962**	**1961**	**1960**	**1959**							
Upper Big Lost (a)													
Antelope Creek, Big Lost (b)													
Lower Big Lost (b)													
Little Lost	239	286	148	181	215	N/C							
Upper Birch Creek	152	278	193	187	217								

(a) New route established in 2001

(b) New routes established in 1998

N/C = not counted


Six Year Trends for Three Big Lost Routes
Male SG
Year
Upper Big Lost (a)
Antelope Creek, Big Lost (b)
Lower Big Lost (b)
90
80
70
60
50
40
30
20
10
0
2003
2002
2001
2000
1999
1998
35
0
51
0
35
81
51
31
67
29
50
24
74
31
62

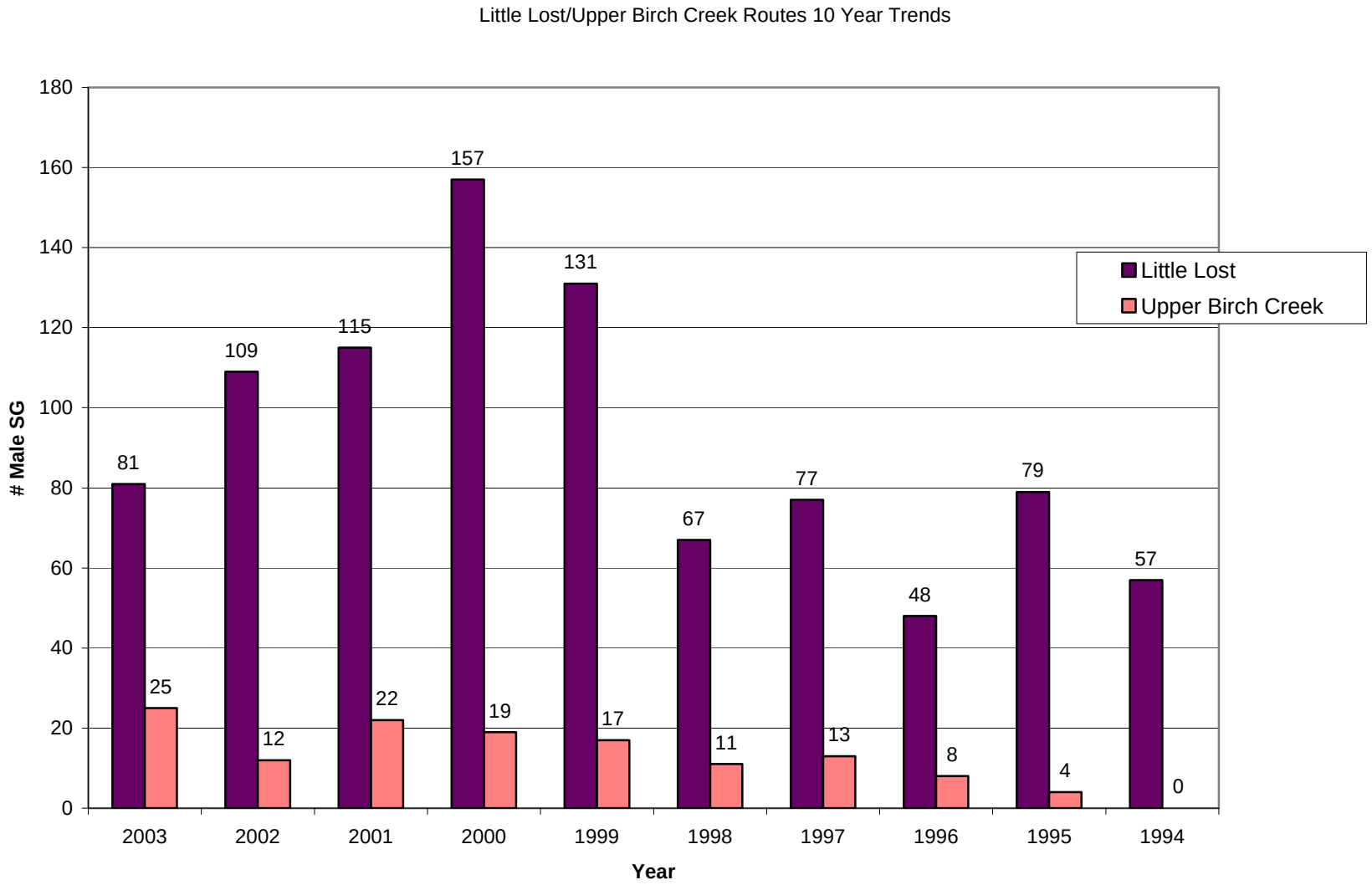

Little Lost/Upper Birch Creek Routes 10 Year Trends
Male SG
Year
Little Lost
Upper Birch Creek
180
160
140
120
100
80
60
40
20
0
2003
2002
2001
2000
1999
1998
1997
1996
1995
1994
81
25
109
12
115
22
157
19
131
17
67
11
77
13
48
8
79
4
57
0

Table A4.28. Sage-grouse monitoring and population trends in Sawtooth ID population, summarized over 5-year periods, 1965 - 2003.

Parameter	00-03	95-99	90-94	85-89	80-84	75-79	70-74	65-69
Leks counted[1]	0	0	1	2	3	0	0	0
Number of active leks[1]	0	0	1	1	2	0	0	0
Percent active leks			75	33	53			
Average males/lek			3	1	4			
Median males/lek			3	0	1			
Average males/active lek			4	2	8			
Median males/active lek			3	2	5			

[1] Averaged over each year for each period.

Fig. A4.26. Change in the population index for Sawtooth ID population, 1980-1999.

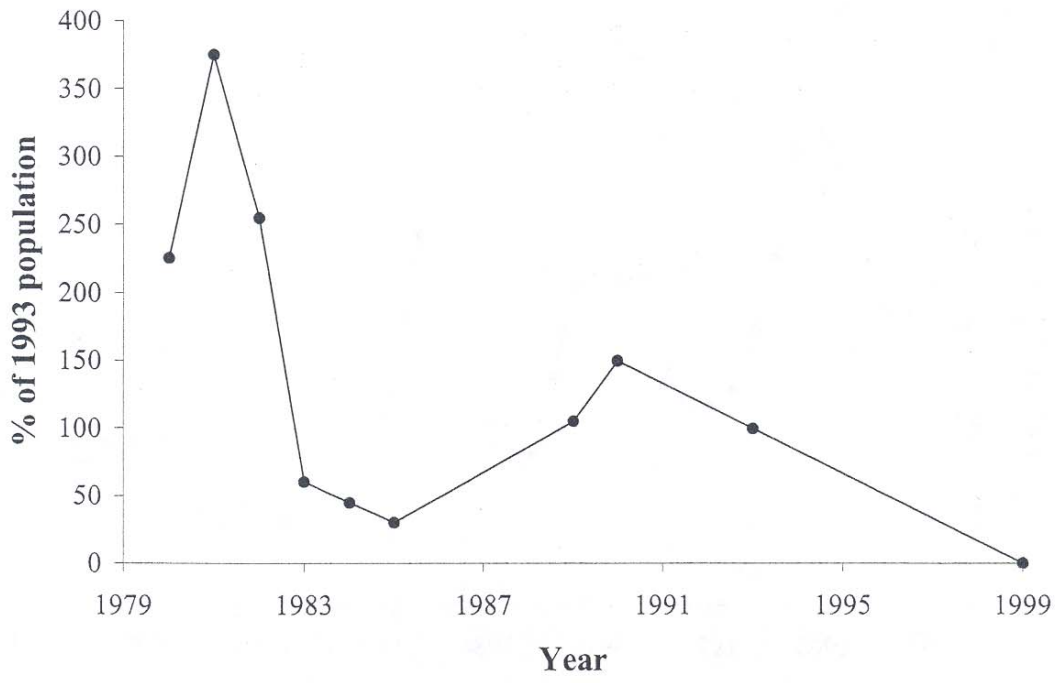
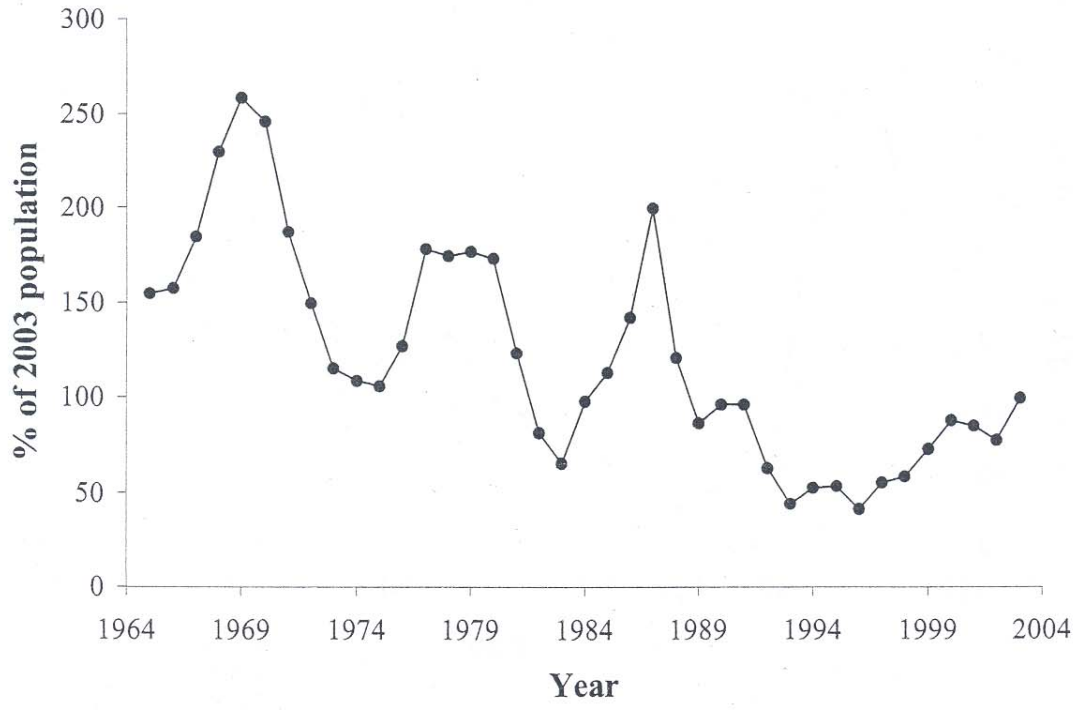


Table A4.30. Sage-grouse monitoring and population trends in Snake, Salmon, and Beaverhead population, summarized over 5-year periods, 1965 - 2003.

Parameter	00-03	95-99	90-94	85-89	80-84	75-79	70-74	65-69
Leks counted[1]	171	130	95	80	100	98	86	64
Number of active leks[1]	129	92	70	70	83	87	77	61
Percent active leks	76	71	74	88	83	89	90	94
Average males/lek	25	18	21	35	22	34	36	44
Median males/lek	17	10	12	22	13	21	27	34
Average males/active lek	33	25	29	39	26	38	40	47
Median males/active lek	25	18	19	26	18	26	31	35

[1] Averaged over each year for each period.

Fig. A4.28. Change in the population index for Snake, Salmon, and Beaverhead population, 1965-2003.



Snake, Salmon, and Beaverhead Population

Table A5.11. Sage-grouse monitoring and population trends in Big Lost ID subpopulation, summarized over 5-year periods, 1965 - 2003.

Parameter	00-03	95-99	90-94	85-89	80-84	75-79	70-74	65-69
Leks counted[1]	12	8	1	1	4	1	3	0
Number of active leks[1]	11	6	1	1	4	1	3	0
Percent active leks	91	82	71	100	90	100	100	100
Average males/lek	17	12	6	12	22	47	54	97
Median males/lek	13	8	3	12	19	30	50	97
Average males/active lek	19	15	9	12	24	47	54	97
Median males/active lek	17	11	4	12	20	30	50	97

[1] Averaged over each year for each period.

Fig. A5.10. Change in the population index for Big Lost ID subpopulation, 1969-2003.

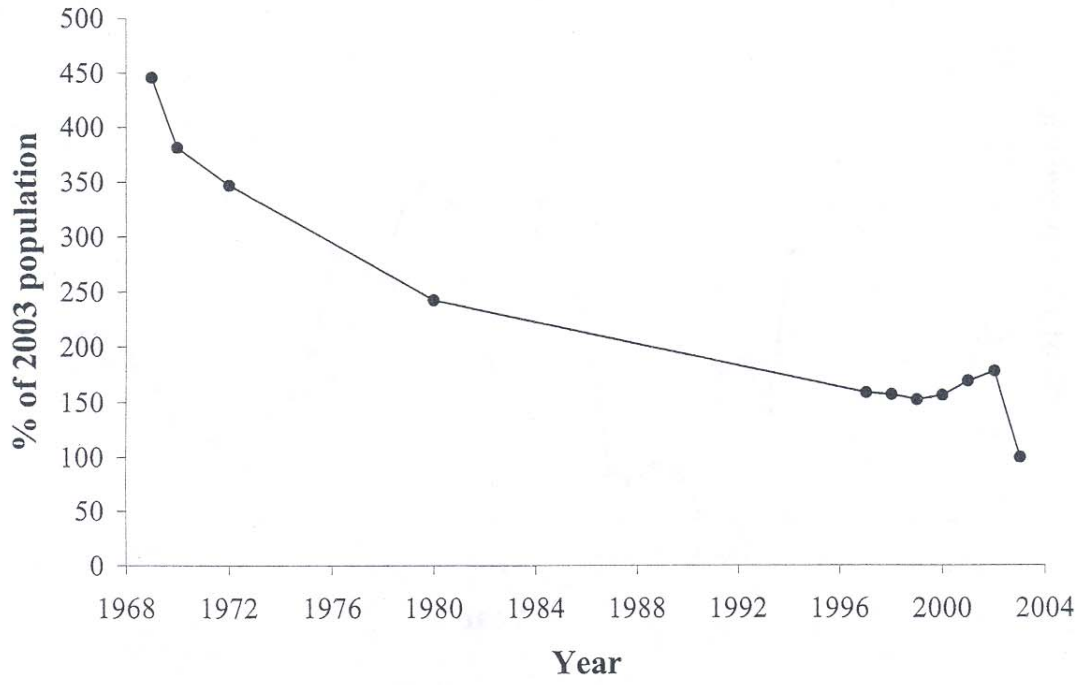


Table A5.12. Sage-grouse monitoring and population trends in Lemhi-Birch ID subpopulation, summarized over 5-year periods, 1965 - 2003.

Parameter	00-03	95-99	90-94	85-89	80-84	75-79	70-74	65-69
Leks counted[1]	19	14	13	12	5	7	6	6
Number of active leks[1]	12	7	10	11	4	5	6	5
Percent active leks	61	51	72	98	79	67	97	93
Average males/lek	13	8	16	28	12	13	20	29
Median males/lek	6	1	9	19	11	4	18	30
Average males/active lek	21	16	22	28	15	20	21	31
Median males/active lek	16	14	14	19	18	16	18	32

[1] Averaged over each year for each period.

Fig. A5.11. Change in the population index for Lemhi-Birch ID subpopulation, 1965-2003.

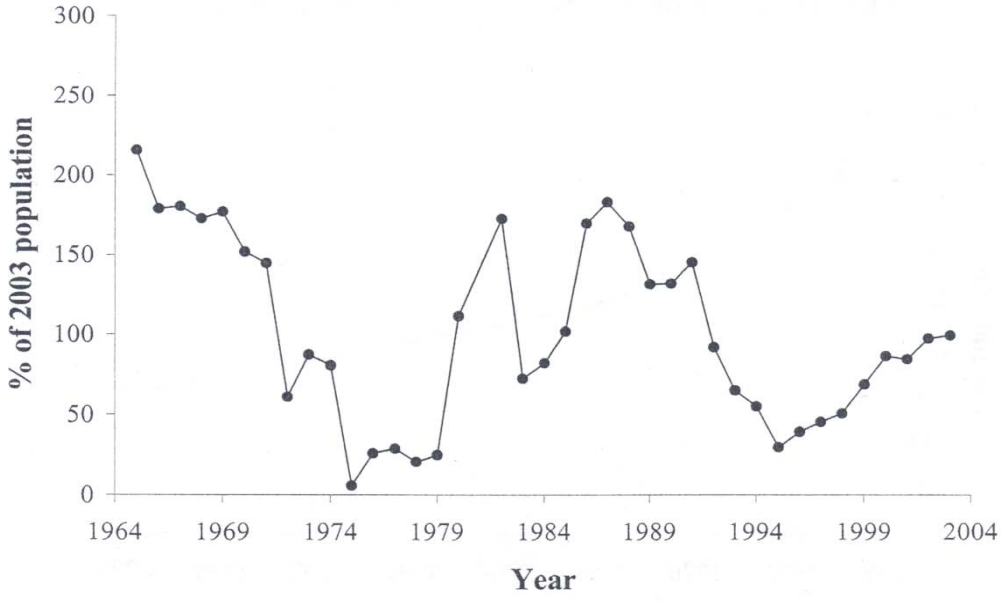


Table A5.13. Sage-grouse monitoring and population trends in Little Lost ID subpopulation, summarized over 5-year periods, 1965 - 2003.

Parameter	00-03	95-99	90-94	85-89	80-84	75-79	70-74	65-69
Leks counted[1]	11	5	4	3	2	2	4	2
Number of active leks[1]	10	4	4	2	2	1	3	2
Percent active leks	95	80	95	80	73	70	78	100
Average males/lek	34	26	30	30	17	16	38	32
Median males/lek	26	18	28	27	8	14	12	19
Average males/active lek	36	32	31	38	23	23	49	32
Median males/active lek	27	35	29	37	9	17	42	19

[1] Averaged over each year for each period.

Fig. A5.12. Change in the population index for Little Lost ID subpopulation, 1973-2003.