



Wyoming Game and Fish Department

ANNUAL BLACK BEAR MORTALITY SUMMARY

Harvest Year - 2014



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TABLE OF CONTENTS

TABLE OF CONTENTS ii

LIST OF TABLES..... iii

LIST OF FIGURESiv

LIST OF APPENDICES.....v

INTRODUCTION 1

MORTALITY ANALYSIS2

 2014 Statewide Mortality2

 Jackson BMU (101).....6

 Grey’s River BMU (102).....10

 ▪ Hunt Areas 14, 15, 16, 17, and 3014

 Absaroka BMU (201)16

 Bighorns BMU (301).....20

 Sierra Madres BMU (401).....24

 Uinta BMU (402)28

 Laramie Peak BMU (501)29

 Snowy Range BMU (502)33

 Wind River BMU (601).....37

 Statewide Hunt Area 35.....41

LIST OF TABLES AND FIGURES

<u>Table</u>	<u>Page</u>
1. Jackson BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season.....	3
2. Harvest criteria for Jackson BMU legal black bear harvest, 2014	9
3. Grey’s River BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	10
4. Harvest criteria for Grey’s River BMU legal black bear harvest, 2014	11
5. Absaroka BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	16
6. Harvest criteria for Absaroka BMU legal black bear harvest, 2014	17
7. Bighorns BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	20
8. Harvest criteria for Bighorns BMU legal black bear harvest, 2014	21
9. Sierra Madres BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	24
10. Harvest criteria for the Sierra Madres BMU legal black bear harvest, 2014	25
11. Uinta BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	28
12. Laramie Peak BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	29
13. Harvest criteria for the Laramie Peak BMU legal black bear harvest, 2014.....	30
14. Snowy Range BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	33
15. Harvest criteria for the Snowy Range BMU legal black bear harvest, 2014.....	34
16. Wind River BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	37
17. Harvest criteria for the Wind River BMU legal black bear harvest, 2014	38
18. Statewide BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season	41

Figure

Page

1. Wyoming black bear management units (BMU) and hunt areas, 2014.....3

2. Annual statewide black bear mortalities (all causes) by sex, 2010-2014.....4

3. Annual statewide black bear mortalities (all causes) by season, 2010-2014.....4

4. Annual statewide non-harvest black bear mortalities by year, 2010-2014.....5

5. Number of black bear mortalities of all causes in Jackson BMU by sex, 2010-2014.....7

6. Legal harvest of black bears in Jackson BMU, 1994-2014.....8

7. Percent adult males in the total legal black bear harvest in Jackson BMU, 1994-2014.....8

8. Percent females of the total legal black bear harvest in Jackson BMU, 1994-20149

9. Percent adult females of the total female legal harvest in Jackson BMU, 1994-20149

10. Number of black bear mortalities of all causes in Grey’s River BMU by sex, 2010-2014..... 11

11. Legal harvest of black bears in Greys River BMU, 1994-2014 12

12. Percent adult males in the total legal black bear harvest in Greys River BMU, 1994-2014..... 12

13. Percent females of the total legal black bear harvest in Greys River BMU, 1994-2014..... 13

14. Percent adult females of the total female legal harvest in Greys River BMU, 1994-2014 13

15. Legal harvest of black bears in hunt areas 14, 15, 16, 17, and 30 of Greys River BMU,
1994-2014..... 14

16. Percent adult males in the total legal black bear harvest in hunt areas 14, 15, 16, 17, and 30
of Greys River BMU, 1994-2014..... 14

17. Percent females of the total legal black bear harvest in hunt areas 14, 15, 16, 17, and 30
of Greys River BMU, 1994-2014..... 15

18. Percent adult females of the total female legal harvest in hunt areas 14, 15, 16, 17, and
30 of Greys River BMU, 1994-2014..... 15

19. Number of black bear mortalities of all causes in Absaroka BMU by sex, 2010-2014..... 17

20. Legal harvest of black bears in Absaroka BMU, 1994-2014 18

21. Percent adult males in the total legal black bear harvest in Absaroka BMU, 1994-2014..... 18

22. Percent females of the total legal black bear harvest in Absaroka BMU, 1994-2014..... 19

23. Percent adult females of the total female legal harvest in Absaroka BMU, 1994-2014 19

24. Number of black bear mortalities of all causes in Bighorns BMU by sex, 2010-2014.....21

25. Legal harvest of black bears in Bighorn BMU, 1994-201422

26. Percent adult males in the total legal black bear harvest in Bighorn BMU, 1994-201422

27. Percent females of the total legal black bear harvest in Bighorn BMU, 1994-2014.....23

28. Percent adult females of the total female legal harvest in Bighorn BMU, 1994-2014.....23

29. Number of black bear mortalities of all causes in Sierra Madres BMU by sex, 2010-2014.....25

30. Legal harvest of black bears in Sierra Madres BMU, 1994-201426

31. Percent adult males in the total legal black bear harvest in Sierra Madres BMU, 1994-2014.....26

32. Percent females of the total legal black bear harvest in Sierra Madres BMU, 1994-201427

33. Percent adult females of the total female legal harvest in Sierra Madres BMU, 1994-201427

34. Number of black bear mortalities of all causes in Laramie Peak BMU by sex, 2010-201430

35. Legal harvest of black bears in Laramie Peak BMU, 1994-201431

36. Percent adult males in the total legal black bear harvest in Laramie Peak BMU, 1994-201431

37. Percent females of the total legal black bear harvest in Laramie Peak BMU, 1994-2014.....32

38. Percent adult females of the total female legal harvest in Laramie Peak BMU, 1994-2014.....32

39. Number of black bear mortalities of all causes in Snowy Range BMU by sex, 2010-201434

40. Legal harvest of black bears in Snowy Range BMU, 1994-201435

41. Percent adult males in the total legal black bear harvest in Snowy Range BMU, 1994-2014.....35

42. Percent females of the total legal black bear harvest in Snowy Range BMU, 1994-2014.....36

43. Percent adult females of the total female legal harvest in Snowy Range BMU, 1994-201436

44. Number of black bear mortalities of all causes in Wind River BMU by sex, 2010-201438

45. Legal harvest of black bears in Wind River BMU, 1994-201439

46. Percent adult males in the total legal black bear harvest in Wind River BMU, 1994-201439

47. Percent females of the total legal black bear harvest in Wind River BMU, 1994-2014.....40

48. Percent adult females of the total female legal harvest in Wind River BMU, 1994-2014.....40

49. Statewide hunt area 35 black bear mortalities by season, 201442

Appendix

Page

I. Wyoming black bear hunting season dates and seasonal female mortality limits by
 BMU and hunt area, 201443

INTRODUCTION

This document contains a summary of Wyoming's black bear mortalities for the 2014 black bear hunting seasons. Mortalities are categorized by cause, including: legal and illegal harvest, damage removals, road-kills, and other miscellaneous causes of death (i.e., natural mortalities). Throughout this document the term "total mortalities" refers to a combination of all causes of death while the term "harvest", when not prefaced by "legal" or "illegal," refers to legal and illegal kills combined.

Since 1994, the Wyoming Game and Fish Department (WGFD) has used a female mortality limit system to regulate black bear harvest. Mortality limits and hunting seasons are assigned to either individual or grouped hunt areas (Appendix I). Bear Management Unit (BMU) or hunt area harvest levels are monitored and regulated by requiring all successful black bear hunters to present the skull and pelt of their harvested bear to WGFD personnel within 72 hours of taking the animal. Harvested female bears are counted against the female mortality limit for the hunt area(s) in which they were killed. Upon meeting its seasonal female mortality limit, a hunt area is closed to harvest for the remainder of that season. To more effectively distribute hunting pressure and allocate harvest opportunities among spring and fall seasons, female mortality limits are split into spring and fall components. Harvest in excess of a BMU/hunt area's spring mortality limit is subtracted from the fall mortality limit for the same BMU/hunt area. Conversely, the remainder of unfilled spring mortality limits is transferred to the associated fall mortality limit. An up-to-date, running tally of harvested female black bears and BMU/hunt area closures is maintained by WGFD and made available to hunters via a telephone hotline and Department website.

The Large Carnivore Section of the WGFD reviews Wyoming's black bear harvest and other causes of black bear mortality annually; however mortality limits and management objectives are developed on a 3-year cycle. Mortality statistics are compiled in an annual mortality report and compared to past trends and established management criteria. Hunting seasons and mortality limits are set for 3-year periods to better determine effects of the mortality limit on the black bear population in that area. At the end of the 3-year period, adjustments may be made to more effectively manage local bear populations. Through this process, many changes have been made to WGFD's black bear management. BMU/hunt area boundaries have been revised and new hunt areas have been created. Additionally, changes have been made to hunting season opening and closing dates, female mortality limits, and total season length. These changes are made through the public input process in an adaptive management framework.

Mortality data for years prior to 2014 may vary from previous reports. These differences reflect mortalities reported too late to be included in the previous annual report. The figures in this document supersede those presented in previously published annual mortality reports.

BLACK BEAR MORTALITY ANALYSIS

2014 Statewide Mortality

Because 2014 is the first year of the current 2014 – 2016 hunting season cycle, this report does not attempt to evaluate the effects of harvest or the changes in female mortality limits on the black bear populations for each BMU. Annual data are presented and compared to past data to provide perspective on mortality and harvest criteria trends only. Continuation of current mortality limits for the remaining 2 years of the harvest cycle will provide additional data with which to evaluate overall harvest effects. Slightly less than half of the female mortality limits were increased for this cycle. Another notable change was the creation of hunt area 12 from the eastern portion of hunt area 10 in the Uinta BMU (Figure 1).

Total mortalities were very consistent with the previous three years 2011–2013, however male mortalities increased while female mortalities declined (Figure 2). The 416 total mortalities in 2014 included 397 legally harvested bears (95%), 13 damage removals (3%), 3 road-kills (1%), 2 illegal kills (<1%), and 1 miscellaneous mortality (<1%). Total mortality decreased 2% from the 2013 total of 423, and was 5% below the 2010-13 average total mortality of 438. Similar to 2013, abundant naturally-available foods in 2014 resulted in a decreased fall harvest (Figure 3) and fewer conflicts and decreased damage removal mortalities (Figure 4). Four of the 13 (31%) damage mortalities were females.

Due to geographic separation of black bear populations, variations in habitat quality and bear density, and an uneven distribution of hunting pressure, caution is warranted when interpreting statewide harvest statistics. Therefore, more specific harvest criteria are presented by BMU in each of the following sections of this report. In BMUs with low harvest, interpreting harvest statistics based on subsets of sex, age class, or season can result in extremely variable results that are difficult to interpret due to small sample sizes.

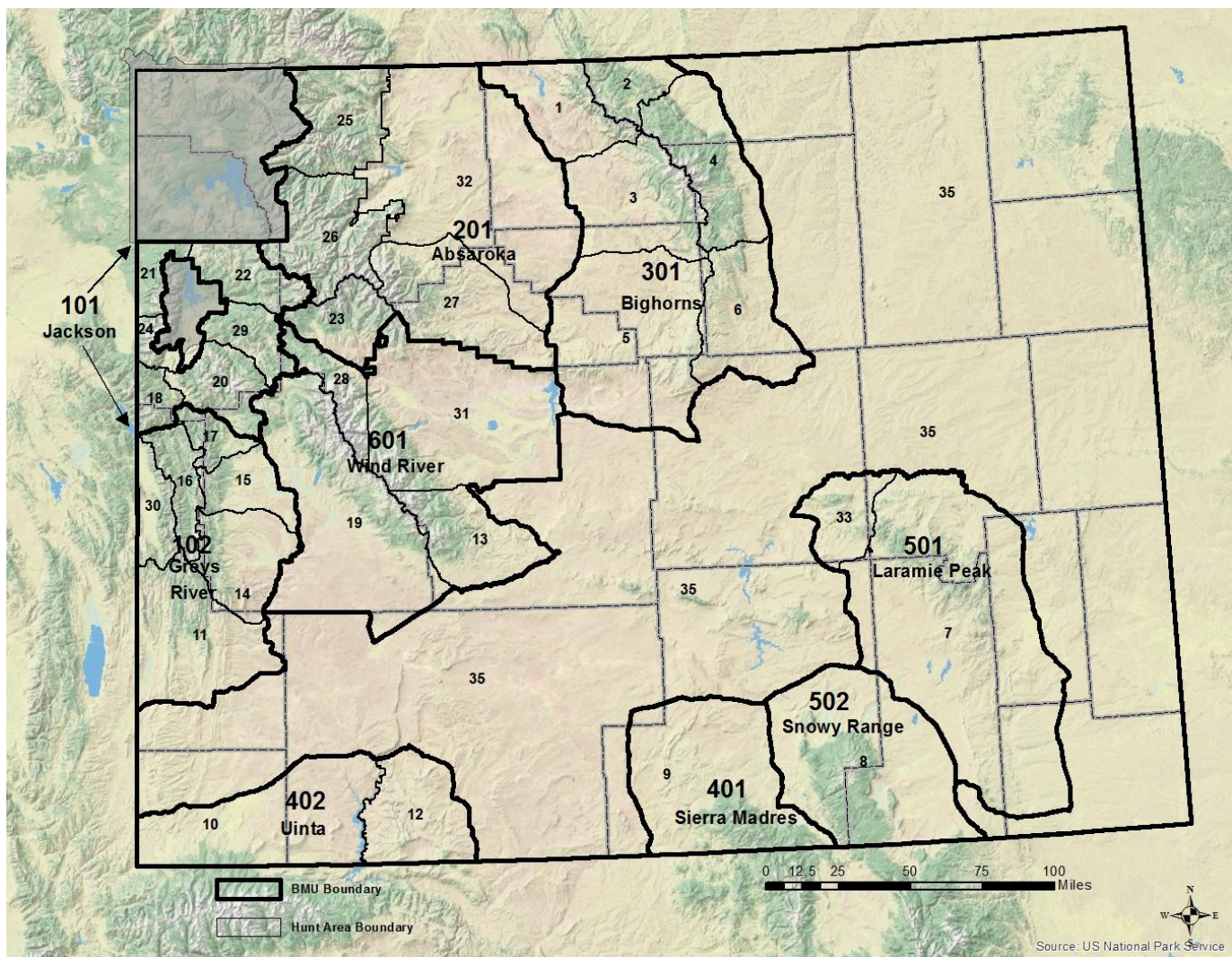


Figure 1. Wyoming black bear management units (BMUs) and hunt areas, 2014.

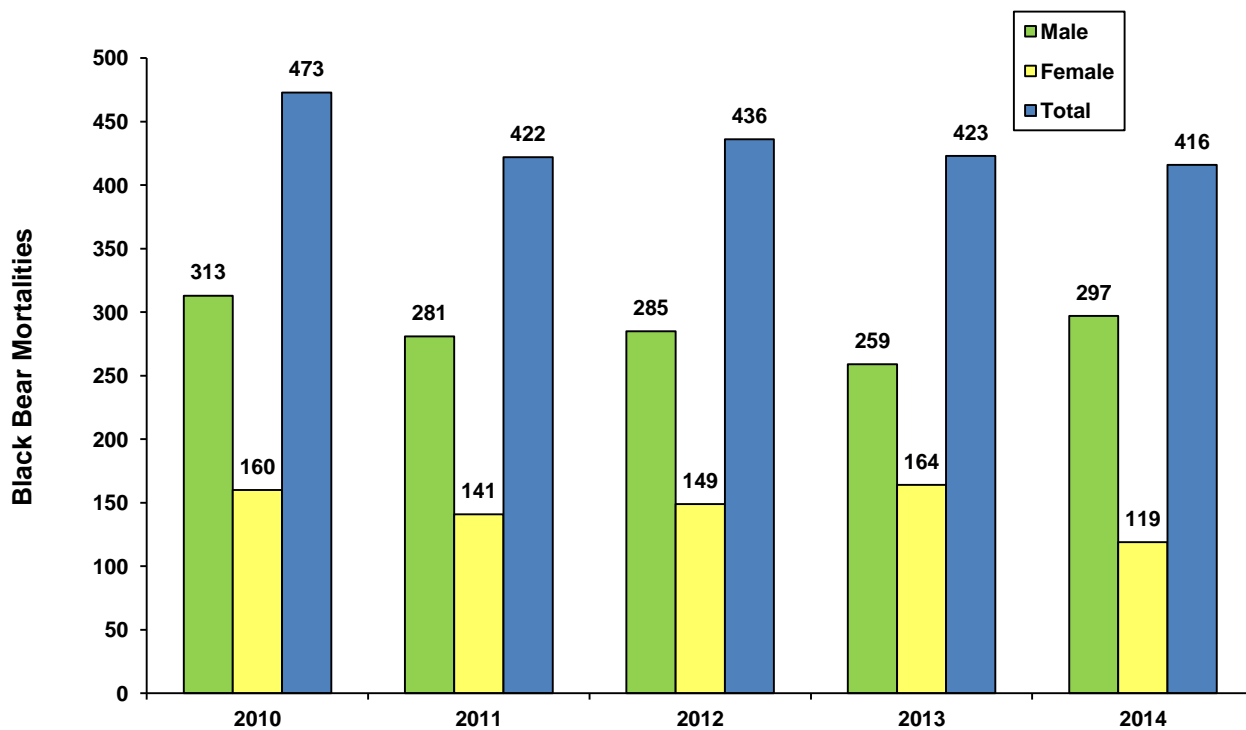


Figure 2. Annual statewide black bear mortalities (all causes) by sex, 2010-2014.

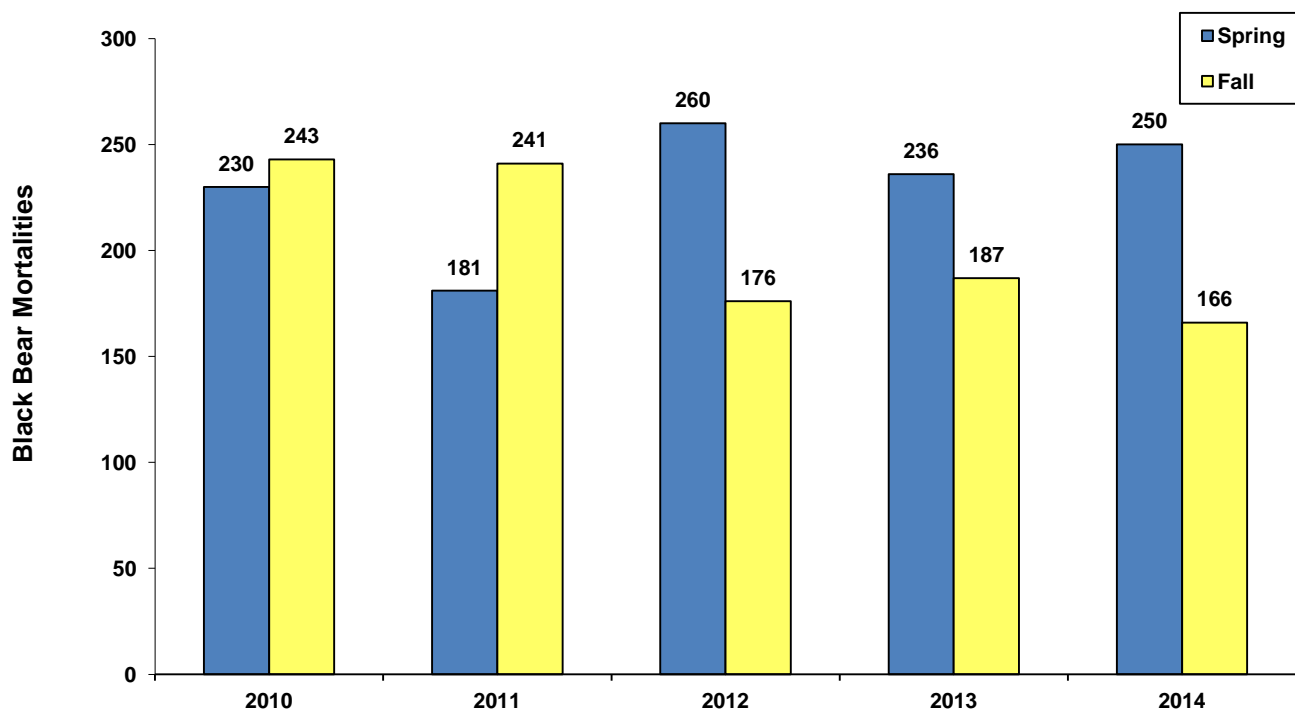


Figure 3. Annual statewide black bear mortalities (all causes) by season, 2010-2014.

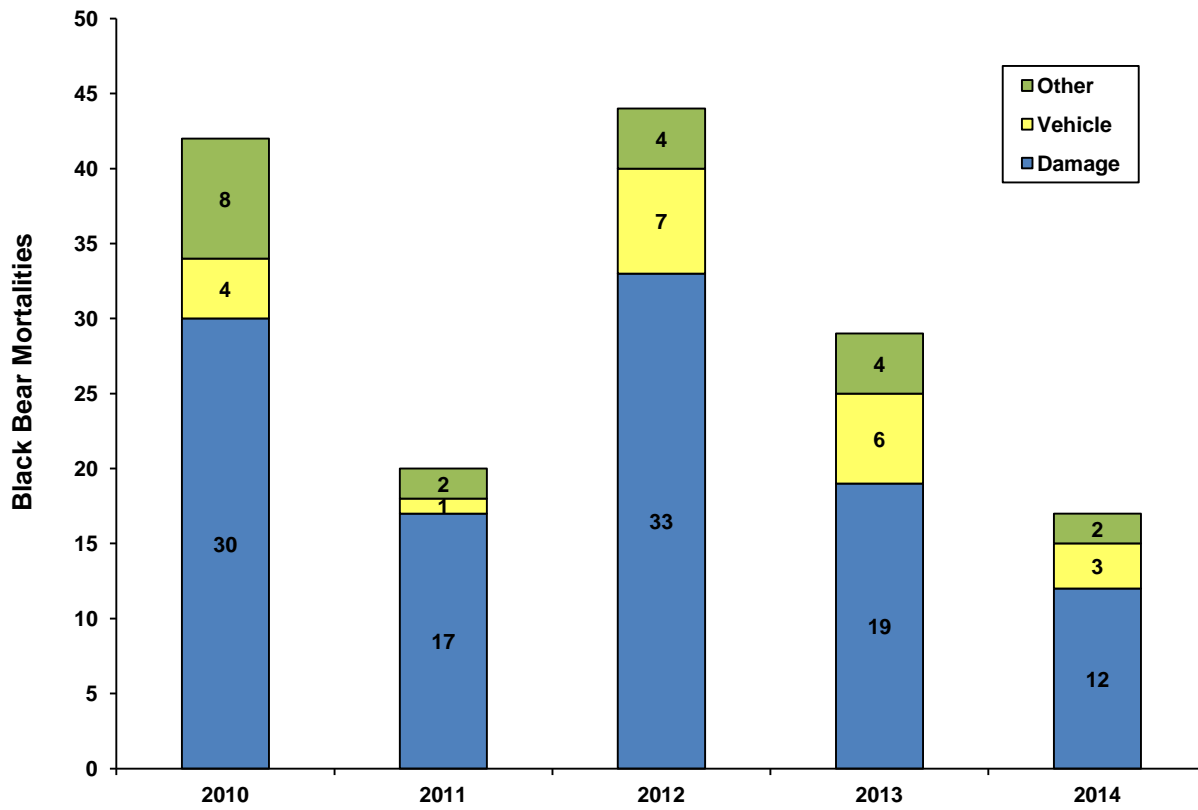


Figure 4. Annual statewide non-harvest black bear mortalities by year, 2010-2014.

JACKSON BEAR MANAGEMENT UNIT (101)

2014 Black Bear Mortality

Female mortality limits for the Jackson BMU remained unchanged for the 2014 – 2016 season cycle (Table 1). During 2014, harvest and total mortalities for BMU 101 changed little from 2013 after decreasing annually since 2010 (Figures 5 and 6). Slightly more than half (55%) of annual harvest mortalities occurred in the spring (Table 1). The percent of adult males continues to trend upward (Figure 7) and the percent of females in the harvest decreased in 2014 (Figure 8). The percent of adults in the female harvest remained high in 2014 (Figure 9). The significant amount of refuge habitat surrounding this BMU provides a large source population and the prohibition of baiting in a majority of the BMU means that bears are harvested more in proportion to their availability in the population. This criterion likely reflects an abundance of older-age females in the population and not a deficit of males and subadult females. The adult male and female harvest criteria provide evidence for this. The overall pattern of mortalities and harvest criteria (Table 2) in the Jackson BMU continue to indicate that the black bear population in BMU 101 experienced light to moderate harvest.

Table 1. Jackson BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. All seasons for this BMU closed on the date listed in regulation (Appendix I) after not reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
JACKSON	18, 20, 21, 22, 24 & 29	13	20	22	6	16	7	6/15/14	10/31/14

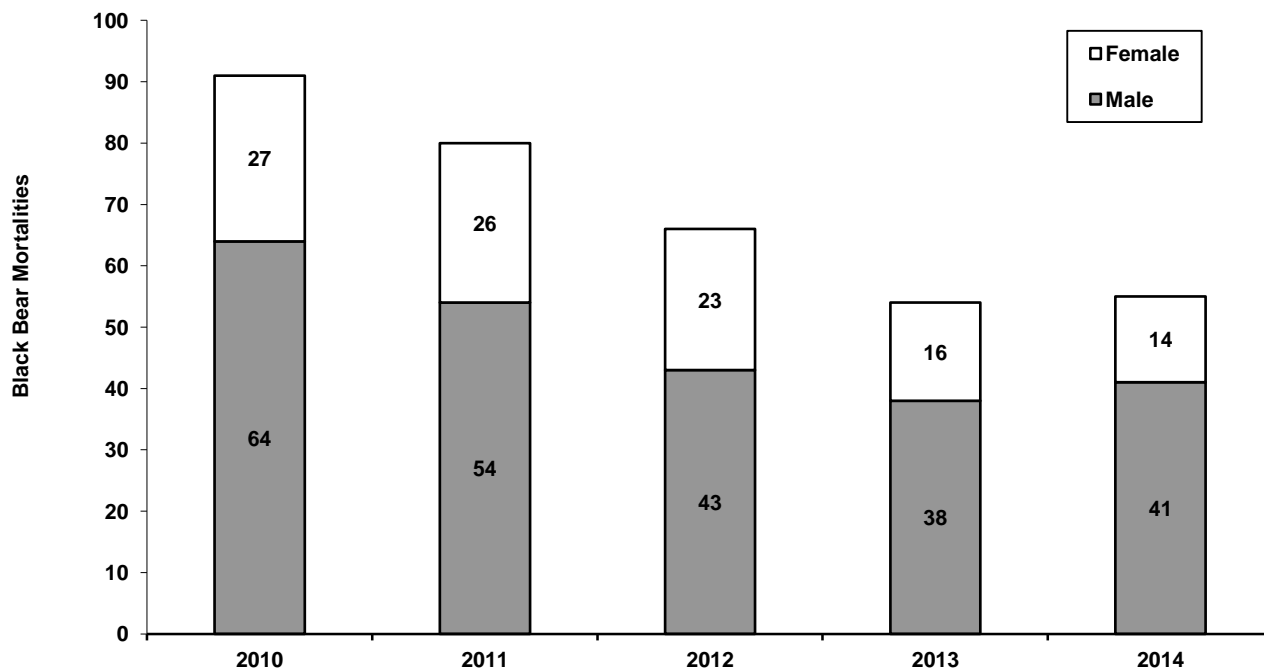


Figure 5. Number of black bear mortalities of all causes in Jackson BMU by sex, 2010-2014.

Table 2. Harvest criteria for Jackson BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		43.1	25.5	84.6

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

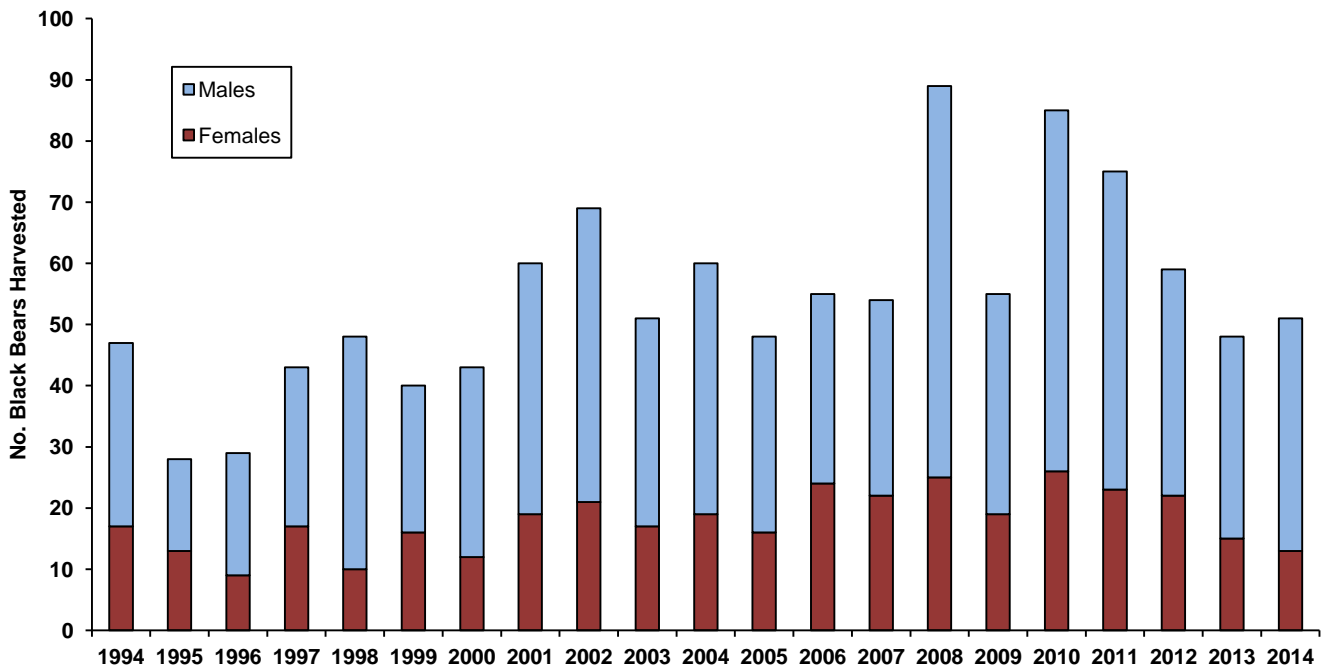


Figure 6. Legal harvest of black bears in Jackson BMU, 1994-2014.

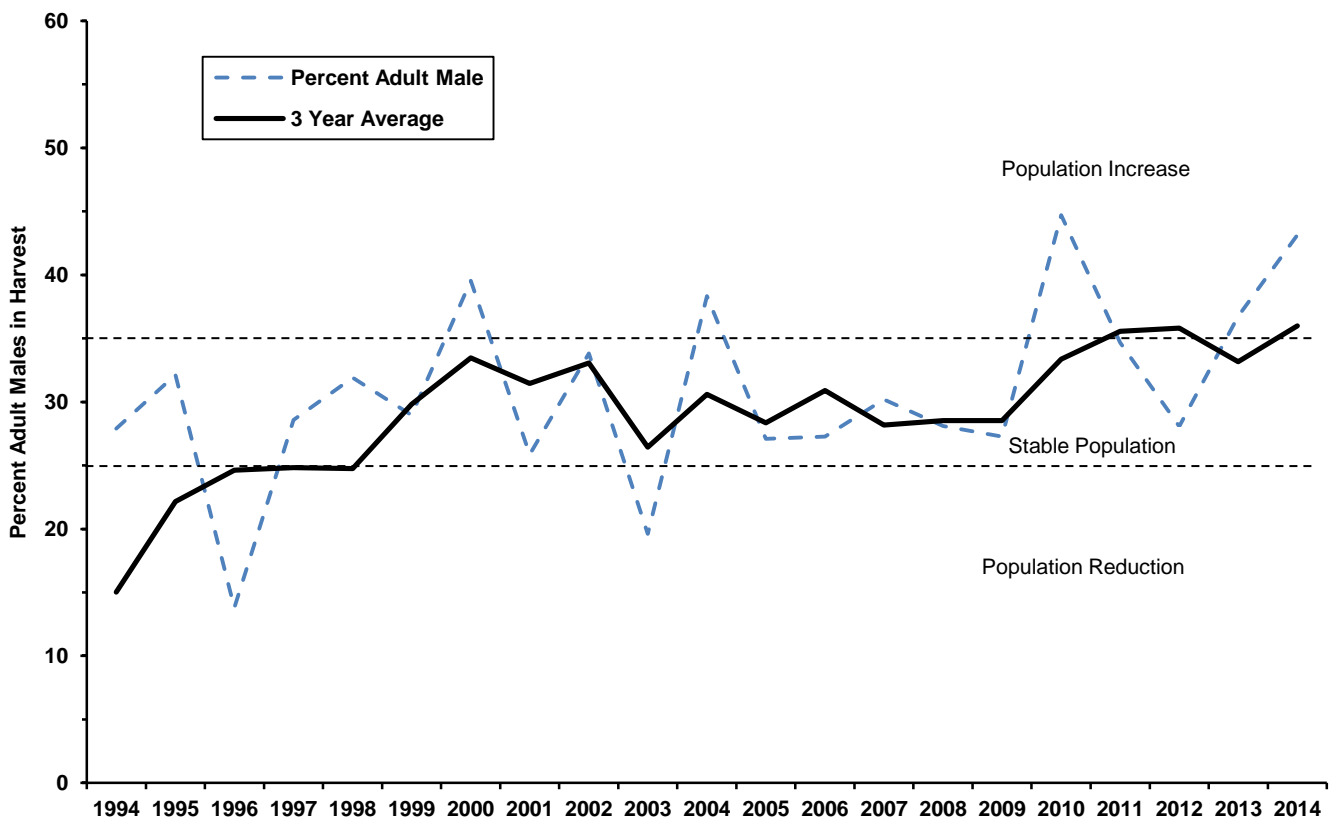


Figure 7. Percent adult males in the total legal black bear harvest in Jackson BMU, 1994-2014.

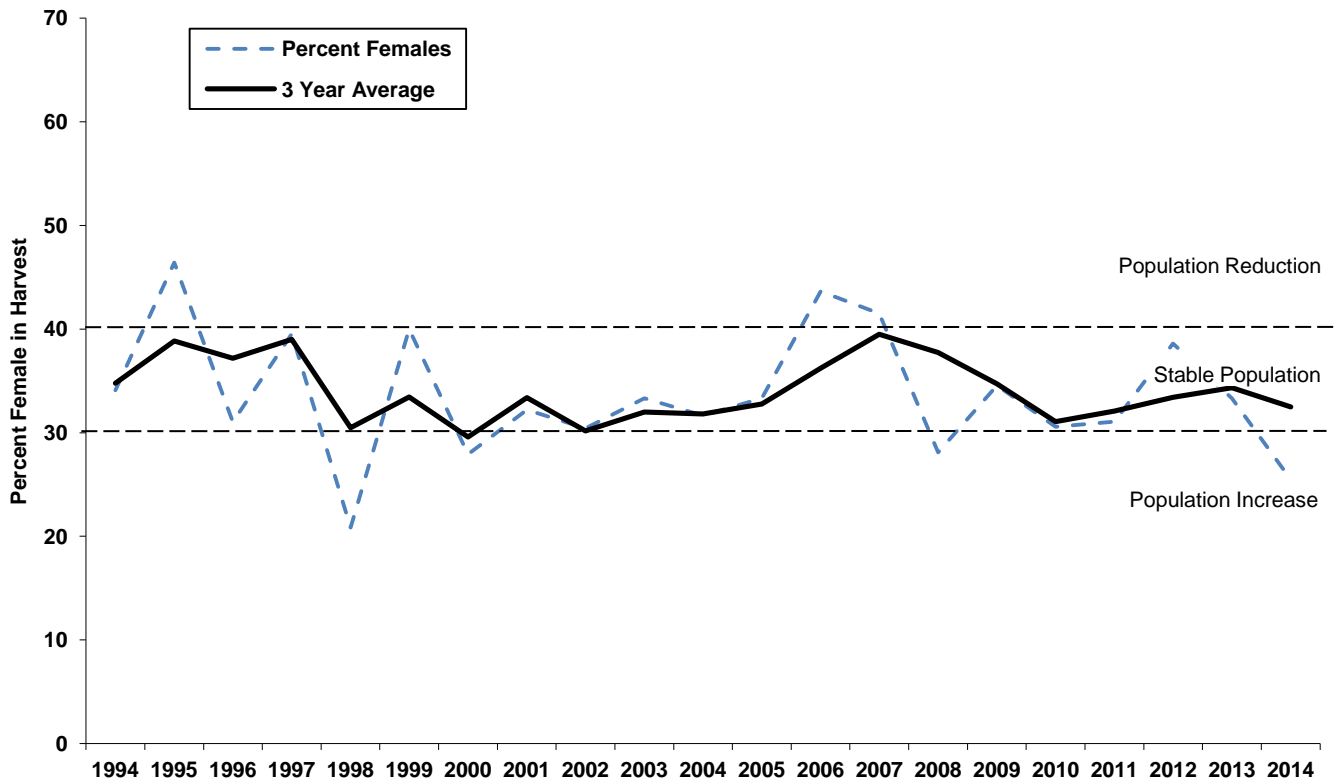


Figure 8. Percent females of the total legal black bear harvest in Jackson BMU, 1994-2014.

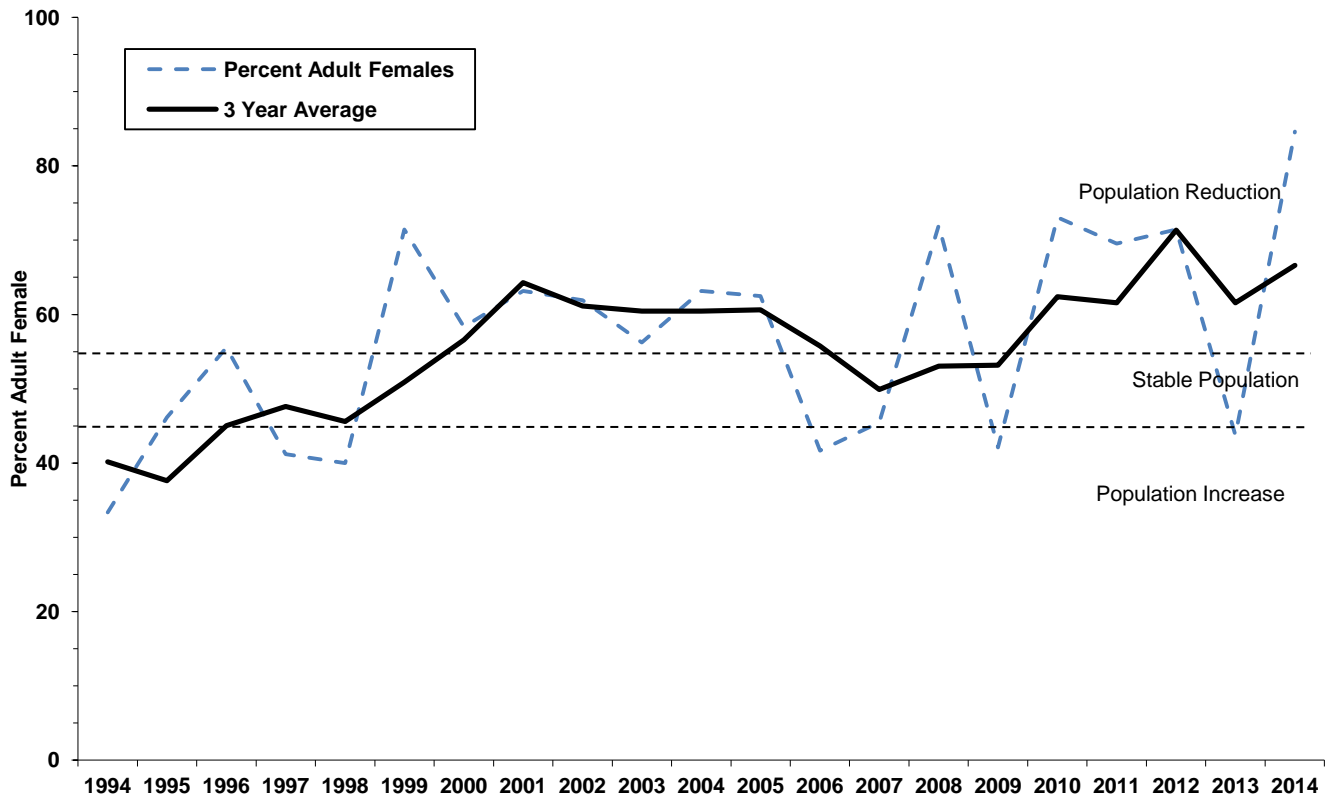


Figure 9. Percent adult females of the total female legal harvest in Jackson BMU, 1994-2014.

GREY'S RIVER BEAR MANAGEMENT UNIT (102)

2014 Black Bear Mortality

Female mortality limits were increased by 8 females in the spring and 4 females in the fall for hunt areas 14-17 and 30 for the 2014 – 2016 season cycle. Mortality limits for hunt area 11 remained unchanged from 2011 – 2013 (Table 3). Total black bear mortalities and hunter harvest in BMU 102 increased slightly in 2014 (Figure 10), due mostly to increased legal harvest (Figures 11 and 15). At the BMU level, harvest criteria continue to indicate harvest effects on the male cohort of the black bear population (Figure 12). The percent females in the harvest decreased in 2014, but remains in the 'reduction' range (Table 3, Figure 13). However, the percent of adults in the female harvest is still low but increasing (Figure 14), indicating that the effects of harvest on female black bears in the BMU are still mostly absorbed by the subadult age class.

Due to the increased mortality limit in the group of hunt areas in and around the Grey's River drainage, separate analyses of the harvest criteria for hunt areas 14-17 and 30 were done for 2014 to assess the effects of the increased mortality limit. Harvest for the 2014 season was the highest recorded for these areas since 1994 (Figure 15). The trend of adult males in the harvest mirrors the trend of the BMU, with an increase in the proportion of adults in 2014 (Figure 16). The percent of females in the harvest decreased in 2014, but remains in the 'reduction' range (Figure 17), while the proportion of adults in the female harvest has increased in recent years (Figure 18). Continued assessment of current female mortality limits through 2016 will shed light on the effects of the increased limits on the Grey's River black bear population.

Table 3. Grey's River BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. Yellow cells indicate season closure prior to the closing date listed in regulation (Appendix I) after reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
GREYS RIVER	11	5	5	8	5	5	0	6/14/14	10/31/14
	14, 15, 16, 17 & 30	30	18	36	30	16	10	6/14/14	10/31/14

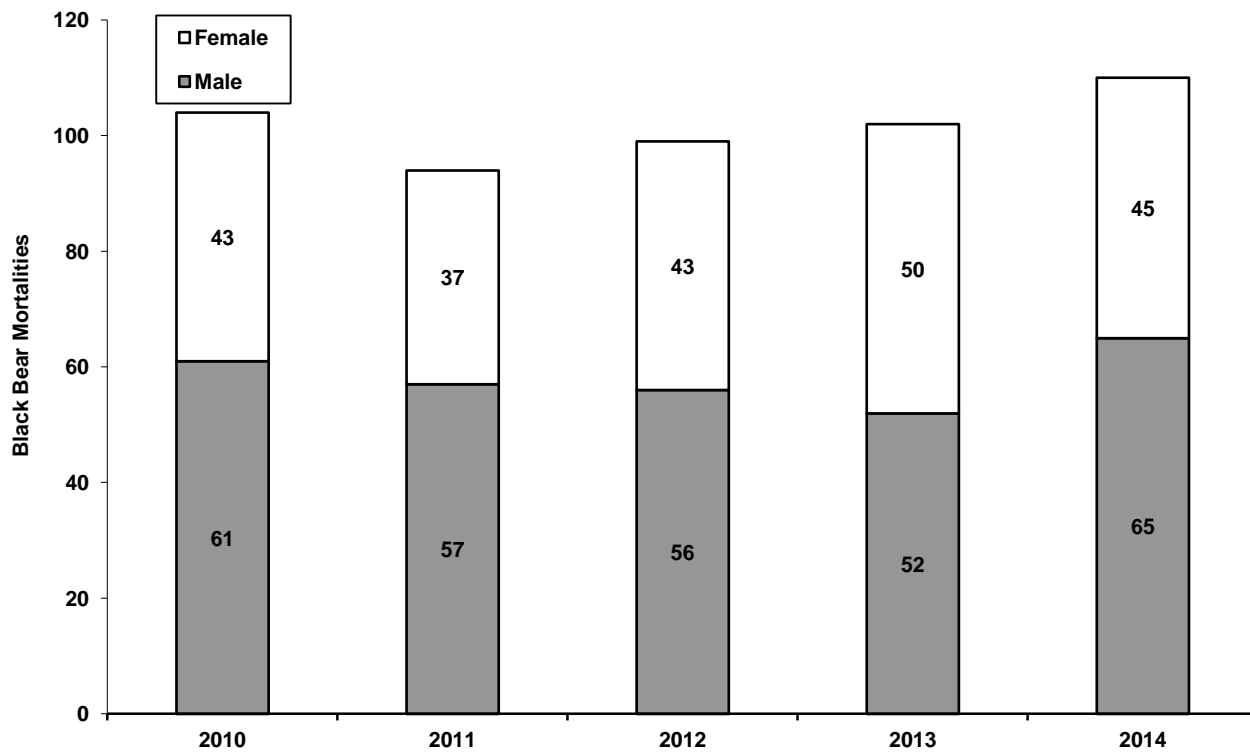


Figure 10. Number of black bear mortalities of all causes in Grey’s River BMU by sex, 2010-2014.

Table 4. Harvest criteria for Grey’s River BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		19.6	40.4	41.9

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

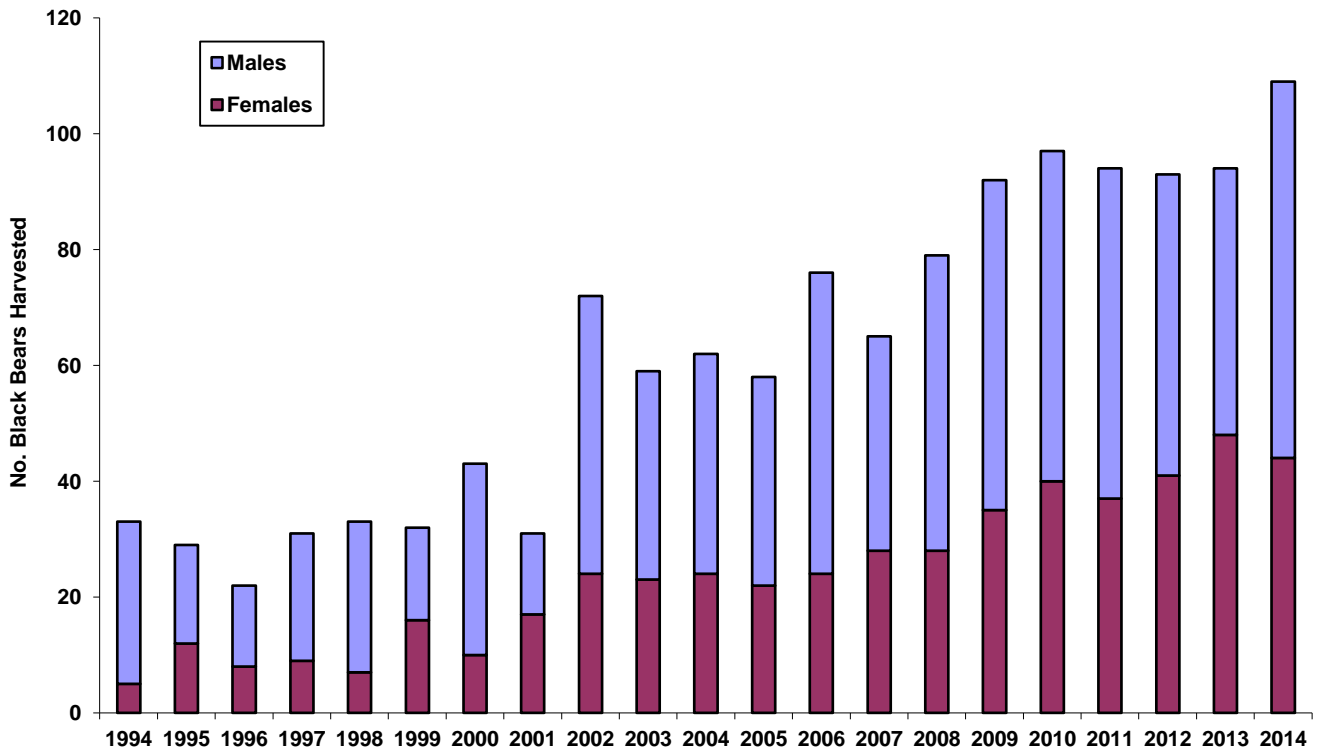


Figure 11. Legal harvest of black bears in Greys River BMU, 1994-2014.

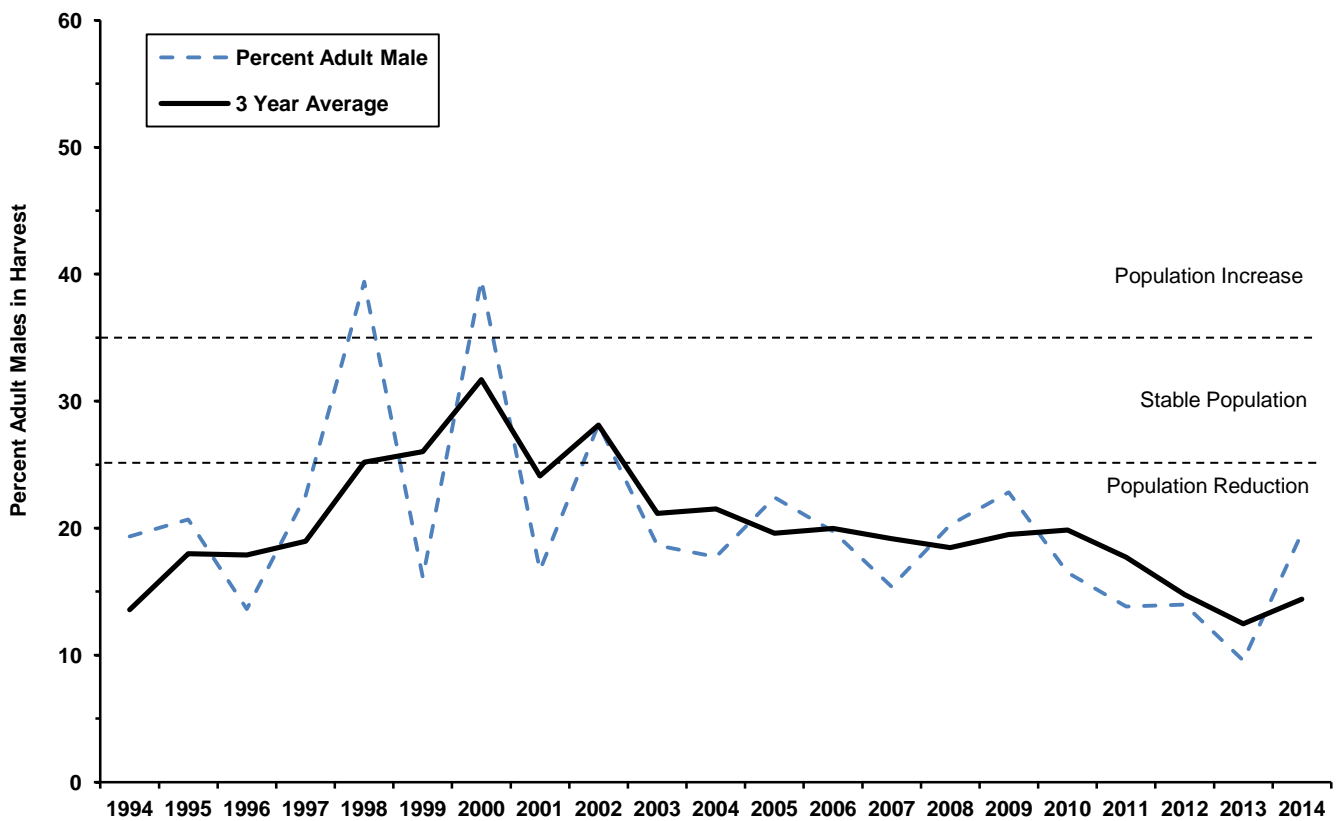


Figure 12. Percent adult males in the total legal black bear harvest in Greys River BMU, 1994-2014.

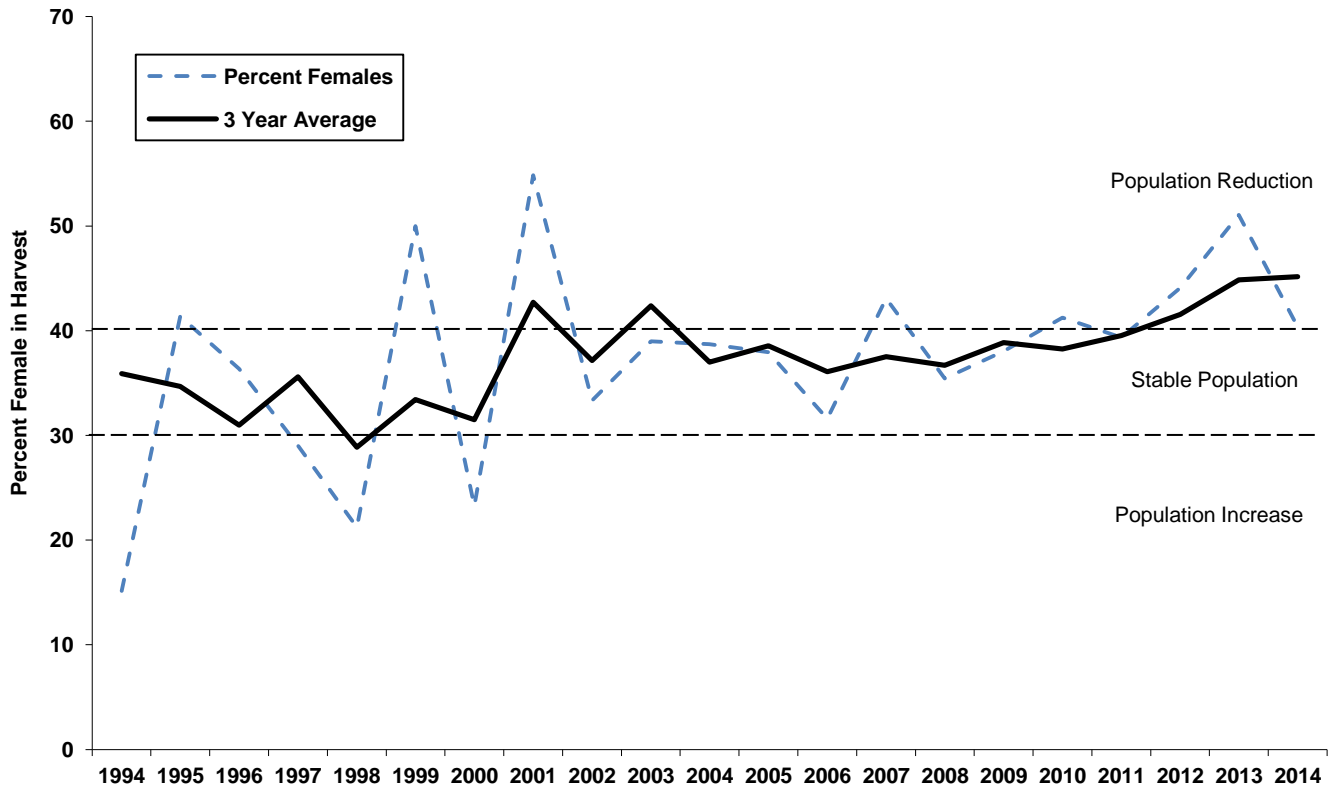


Figure 13. Percent females of the total legal black bear harvest in Greys River BMU, 1994-2014.

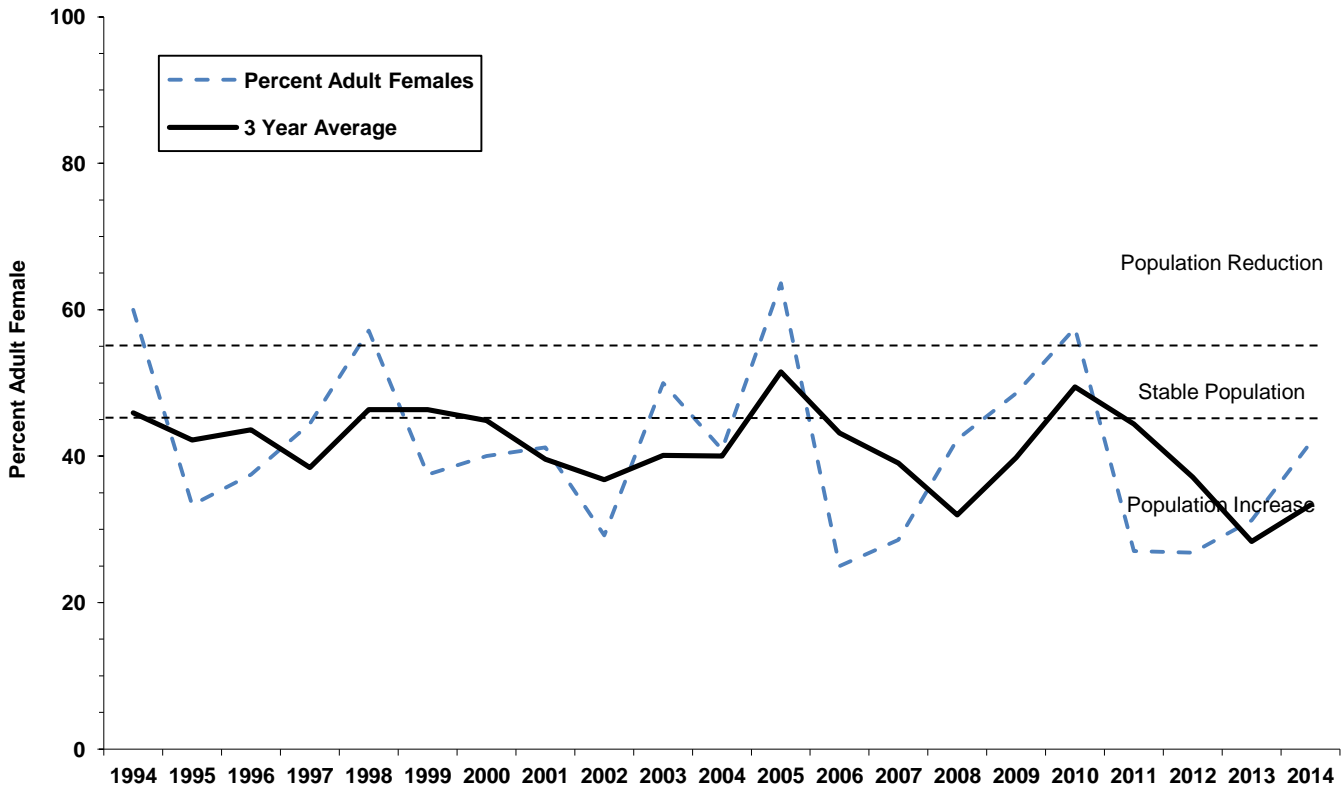


Figure 14. Percent adult females of the total female legal harvest in Greys River BMU, 1994-2014.

Harvest Criteria by Mortality limit – Hunt Areas 14, 15, 16, 17, and 30

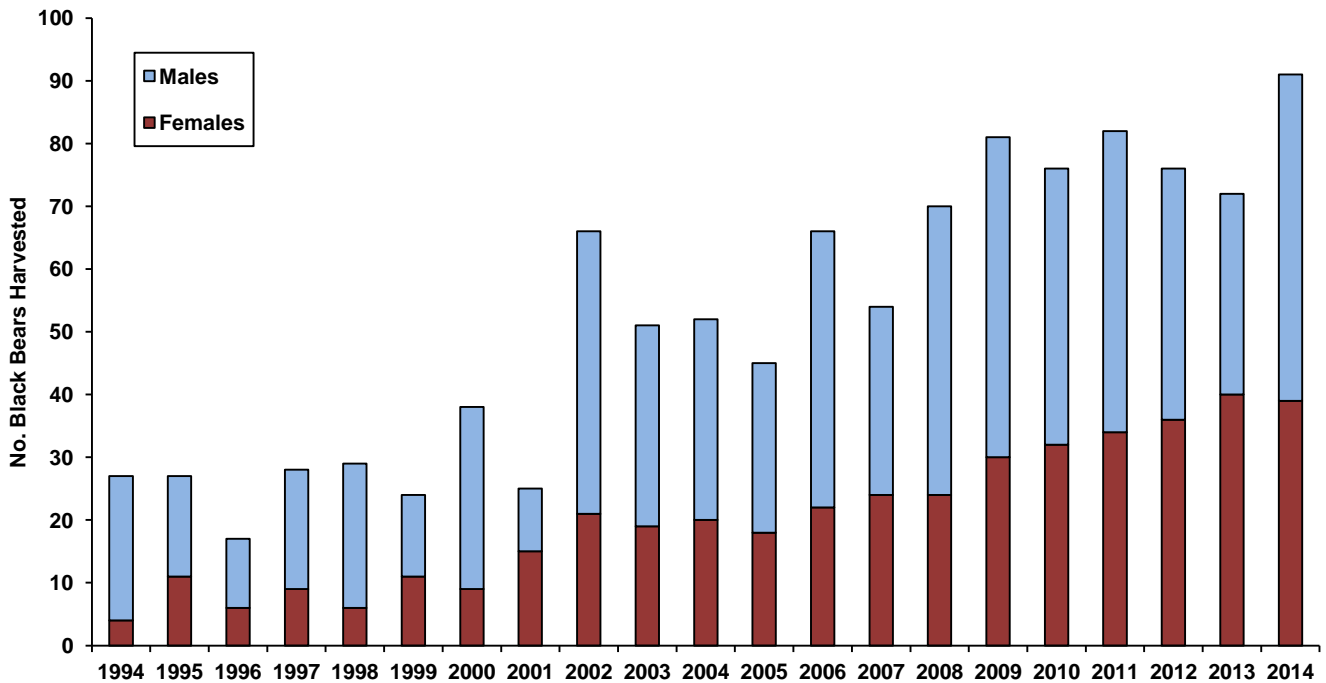


Figure 15. Legal harvest of black bears in hunt areas 14, 15, 16, 17, and 30 of Greys River BMU, 1994-2014.

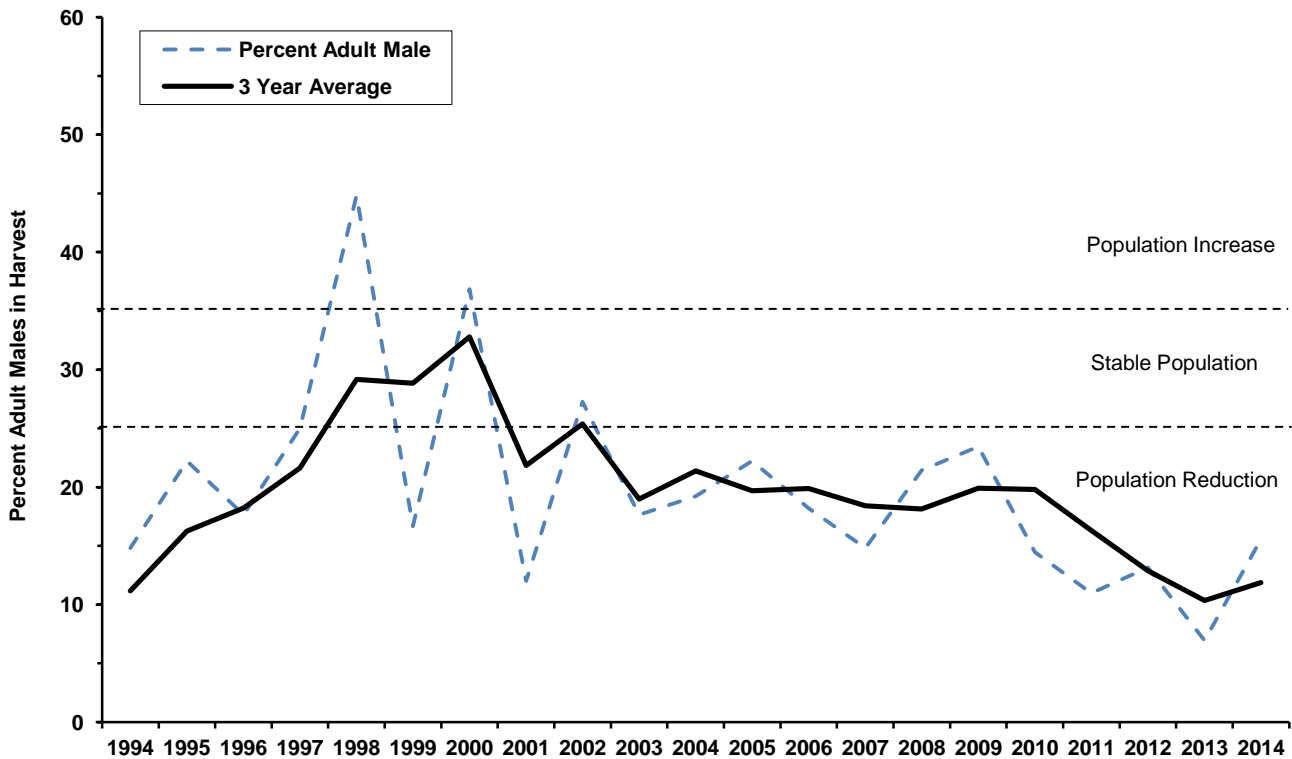


Figure 16. Percent adult males in the total legal black bear harvest in hunt areas 14, 15, 16, 17, and 30 of Greys River BMU, 1994-2014.

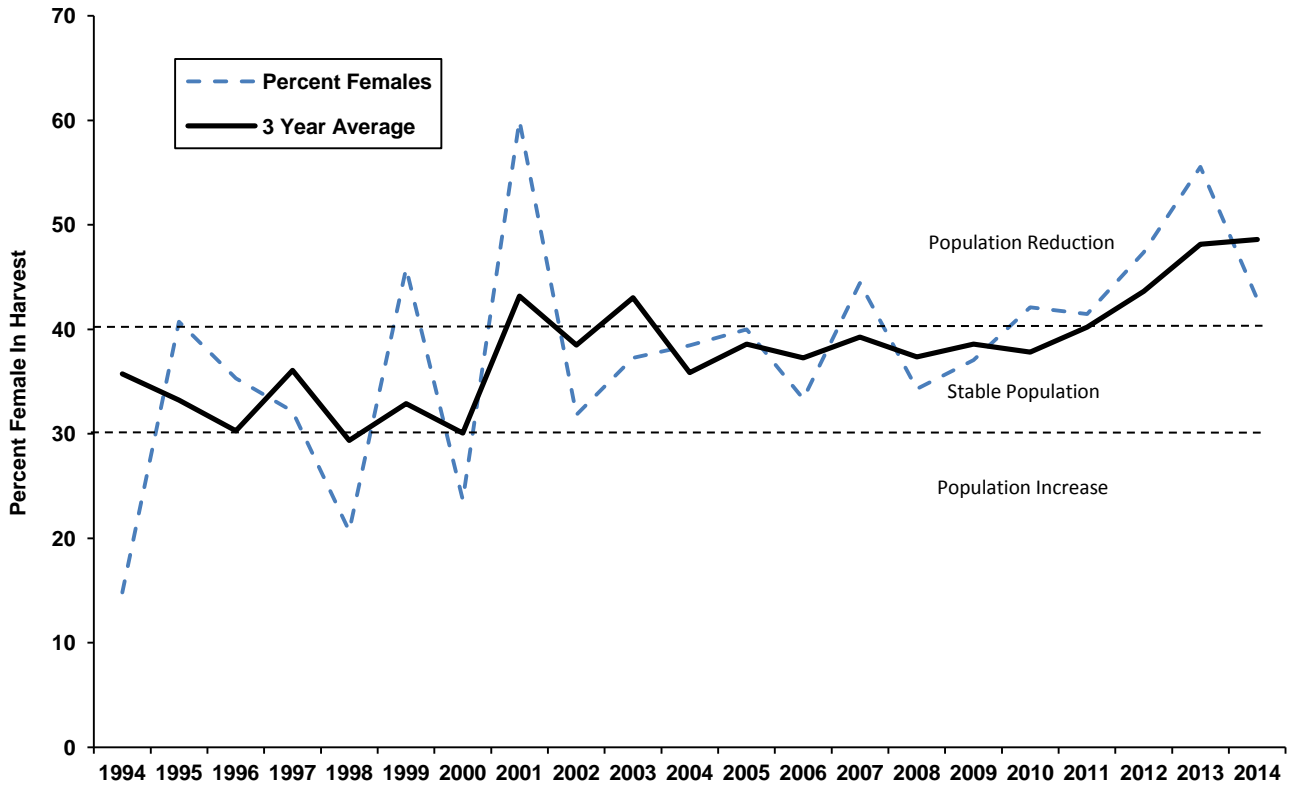


Figure 17. Percent females of the total legal black bear harvest in hunt areas 14, 15, 16, 17, and 30 of Greys River BMU, 1994-2014.

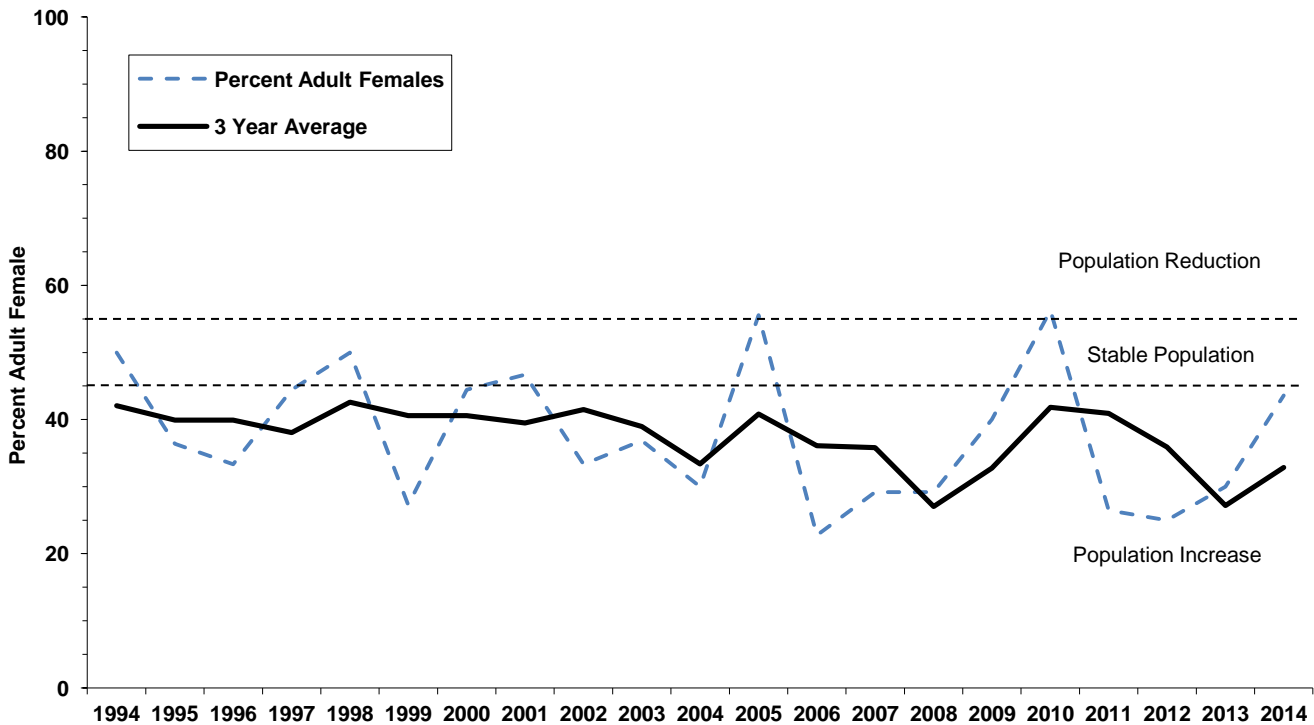


Figure 18. Percent adult females of the total female legal harvest in hunt areas 14, 15, 16, 17, and 30 of Greys River BMU, 1994-2014.

ABSAROKA BEAR MANAGEMENT UNIT (201)

2014 Black Bear Mortality

Female mortality limits for the Absaroka BMU remained unchanged for the spring and increased by 2 for the fall seasons of the 2014 – 2016 season cycle (Table 5). Overall, 2014 mortalities and harvest decreased significantly from previous years (Figures 19 and 20), especially the record year of 2013. Most harvest was distributed evenly between hunt area 25 (8 bears), hunt area 27 (9 bears), and hunt area 32 (7 bears). The percent of adult males in the harvest remains high and the percent of females in the harvest is continually below 40%. The percent of adults in the female harvest decreased into the ‘increase’ range in 2014, but the 3-year trend remains high and in the ‘reduction’ range (Table 6 and Figures 20-23). However, similar to the Jackson BMU, the significant amount of refuge habitat surrounding this BMU provides a source population. The prohibition of baiting in a majority of the unit reduces hunter selectivity, resulting in harvest more in proportion to availability in the population, not by their vulnerability to harvest. This criterion likely reflects an abundance of older-age females in the population and not a deficit of males and subadult females.

Overall, a continued high percent of adult males in the harvest and the relatively low percent of females in the harvest indicate a healthy and stable black bear population experiencing moderate to low harvest pressure.

Table 5. Absaroka BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. All seasons for this BMU closed on the date listed in regulation (Appendix I) after not reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
ABSAROKA	23, 25, 26 & 27	8	12	12	1	4	2	6/15/14	10/31/14
	32	NA	NA	1	1	4	1	6/15/14	11/15/14

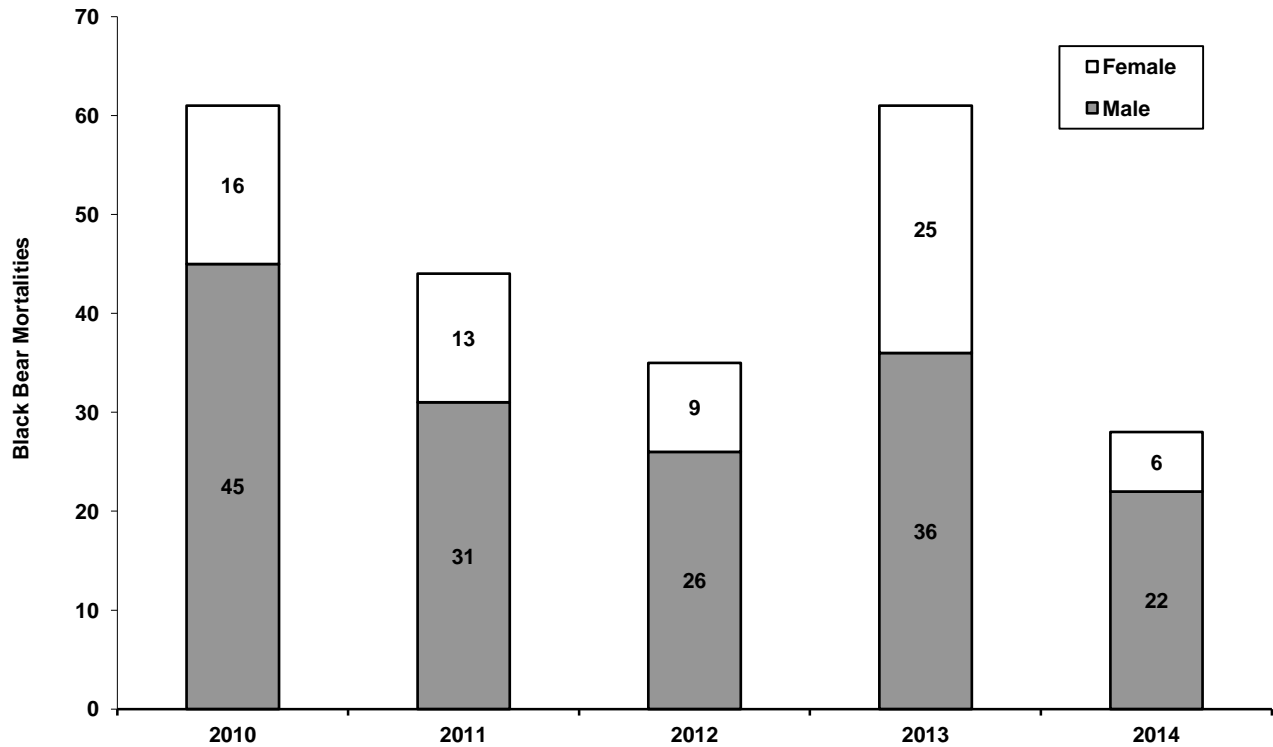


Figure 19. Number of black bear mortalities of all causes in Absaroka BMU by sex, 2010-2014.

Table 6. Harvest criteria for Absaroka BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		38.5	19.2	40.0

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

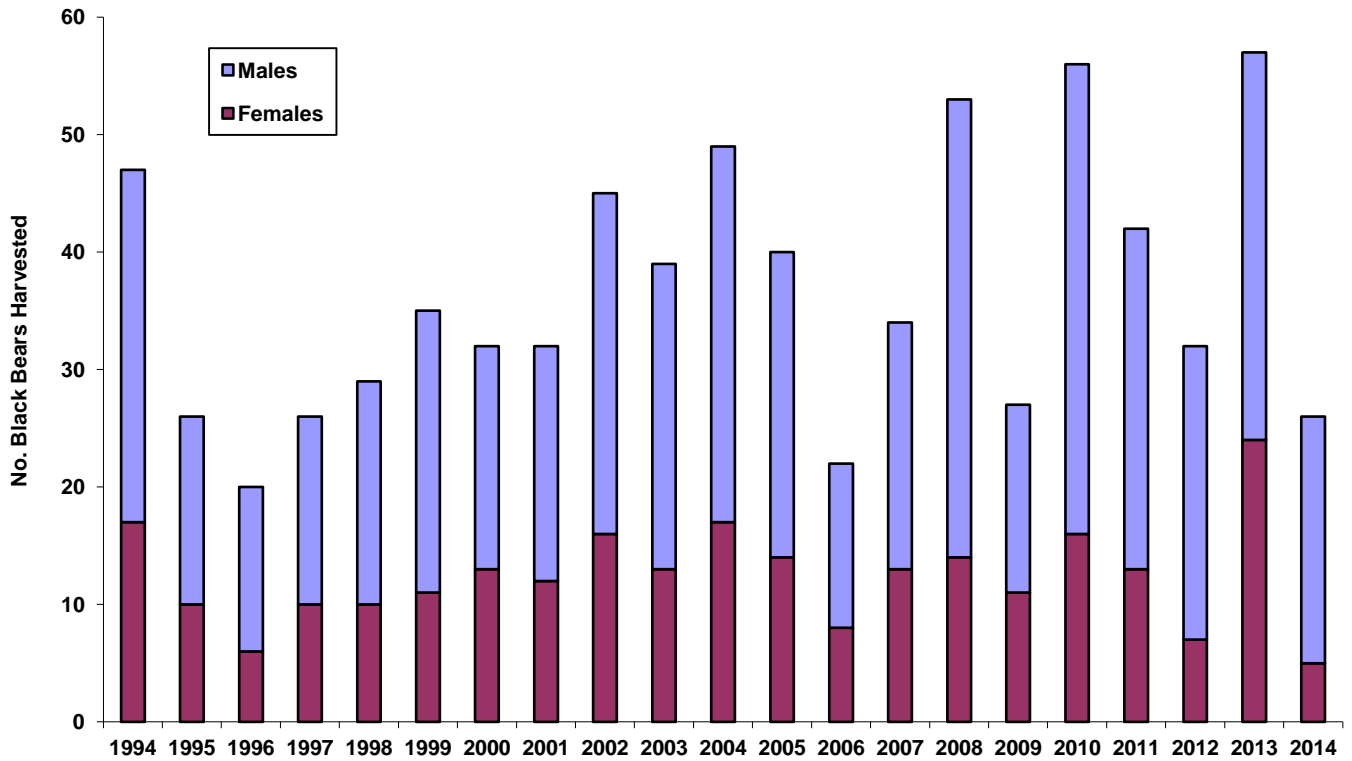


Figure 20. Legal harvest of black bears in Absaroka BMU, 1994-2014.

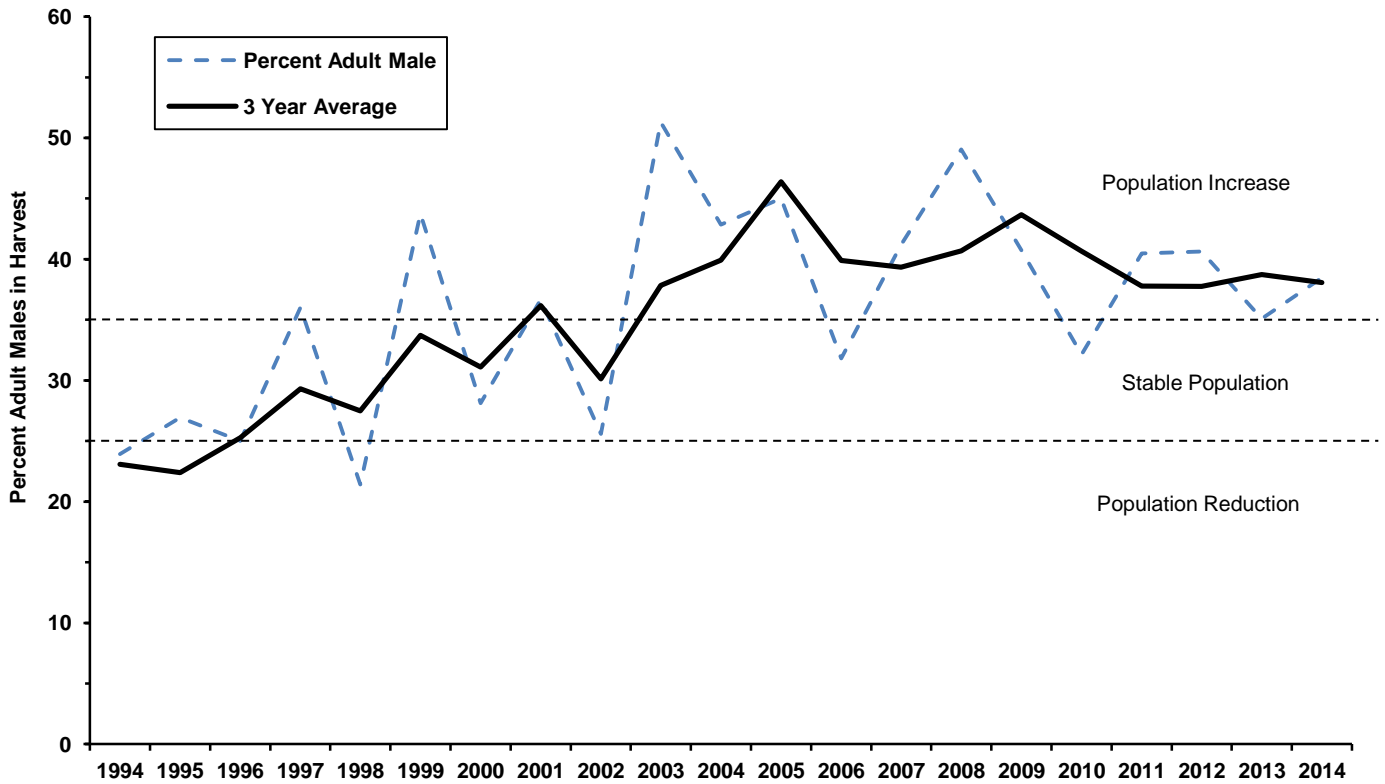


Figure 21. Percent adult males in the total legal black bear harvest in Absaroka BMU, 1994-2014.

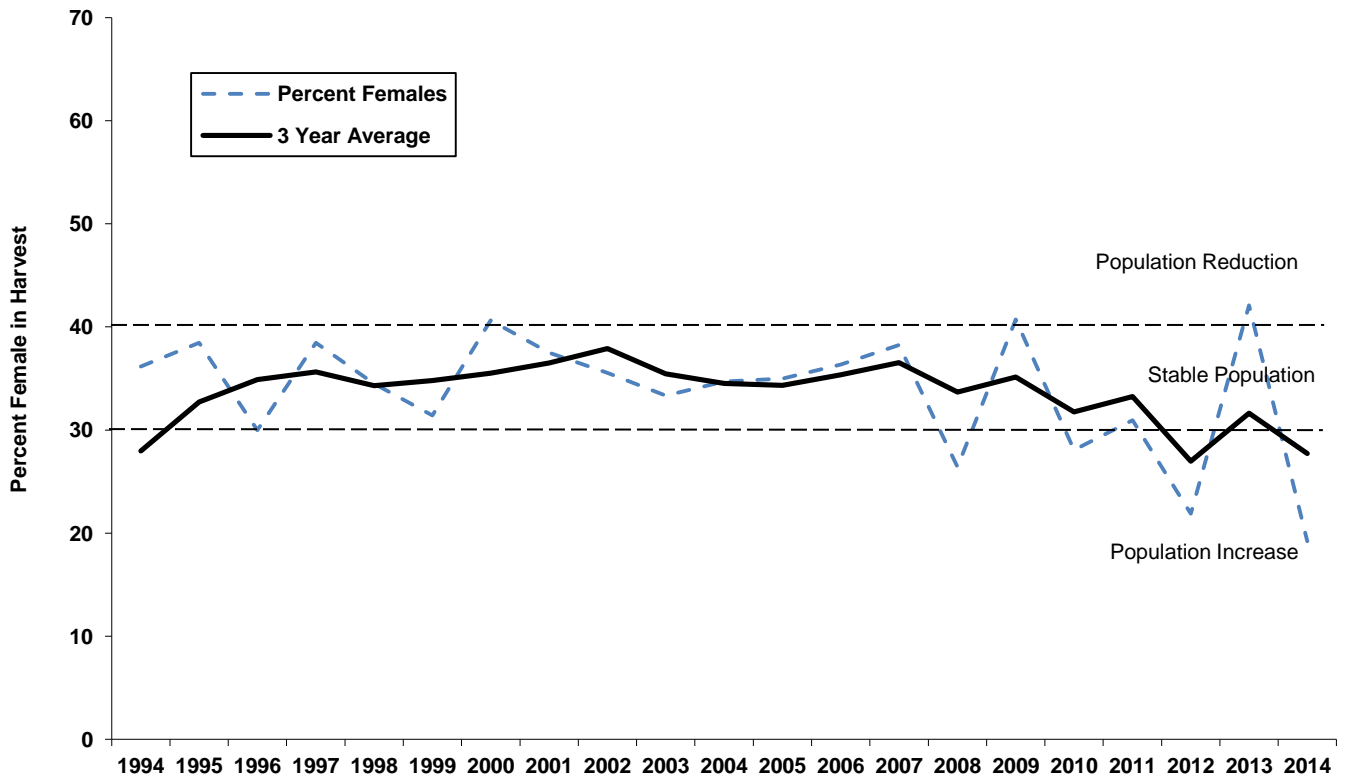


Figure 22. Percent females of the total legal black bear harvest in Absaroka BMU, 1994-2014.

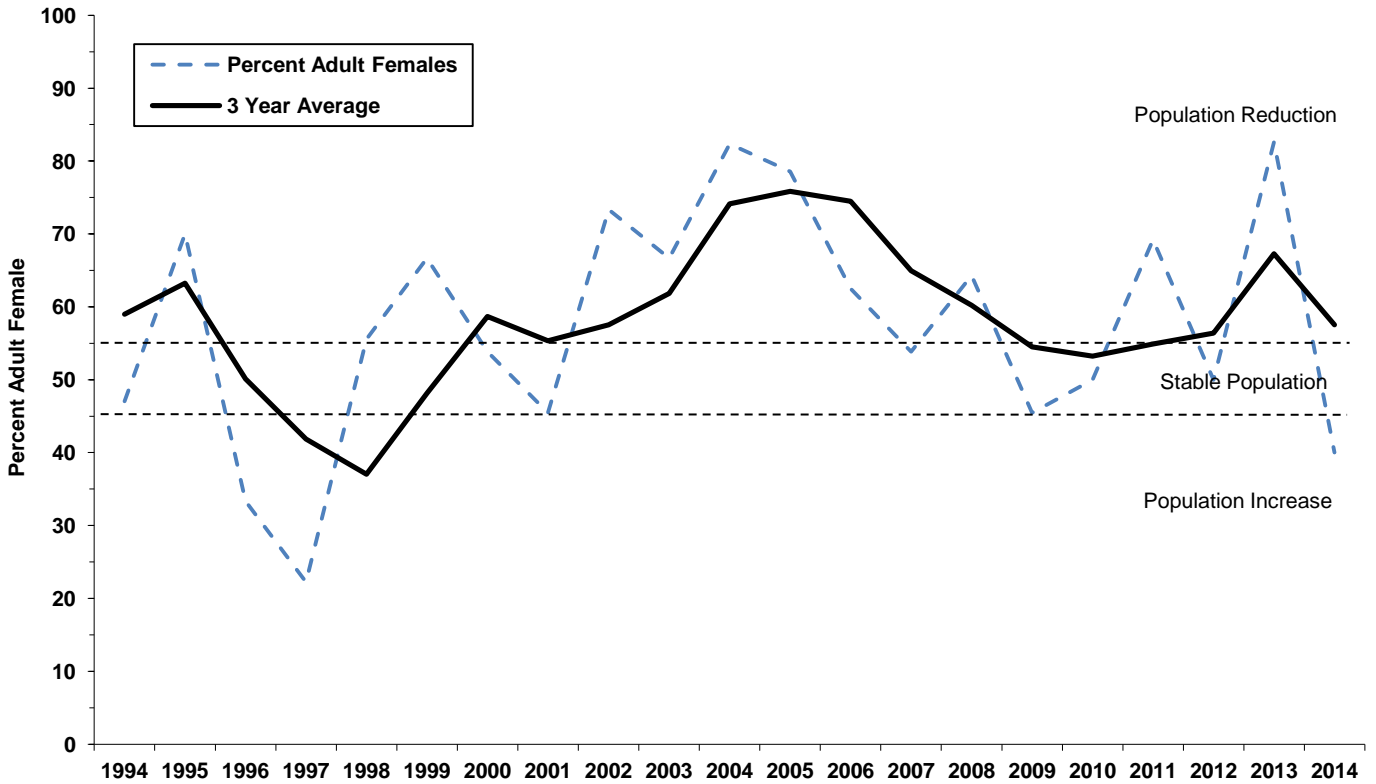


Figure 23. Percent adult females of the total female legal harvest in Absaroka BMU, 1994-2014.

BIGHORNS BEAR MANAGEMENT UNIT (301)

2014 Black Bear Mortality

The fall female mortality limit for hunt areas 1 and 2 was increased to 6 for the 2014 – 2016 season cycle, while all other mortality limits for the Bighorns BMU remained unchanged for this period (Table 7). Legal black bear harvest and total mortalities in BMU 301 were very similar to 2013 numbers, which were down from an all-time high in 2012 (Figures 24 and 25). The proportion of males in the harvest remains in the ‘population reduction’ zone, as it has since the mid-1990’s (Figure 26). The percent of females in the harvest has decreased to 22% in 2014 (Table 8, Figure 27), while the proportion of adults in the female harvest continues to fluctuate around the stable to increase range (Figure 28).

Harvest criteria suggest the status of the black bear population in BMU 301 continues to be relatively stable with hunter harvest likely affecting males by reducing the proportion of adults, while the female cohort remains less affected. The relatively low percent of adults in the female harvest indicates the reproductively important adult female cohort is still able to provide recruitment into the population.

Table 7. Bighorns BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. All seasons for this BMU closed on the date listed in regulation (Appendix I) after not reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
BIGHORNS	1, 2	8	6	17	4	14	6	6/15/14	10/31/14
	3, 4	6	4	9	3	4	1	6/15/14	10/31/14
	5, 6	2	2	1	0	5	0	6/15/14	11/15/14

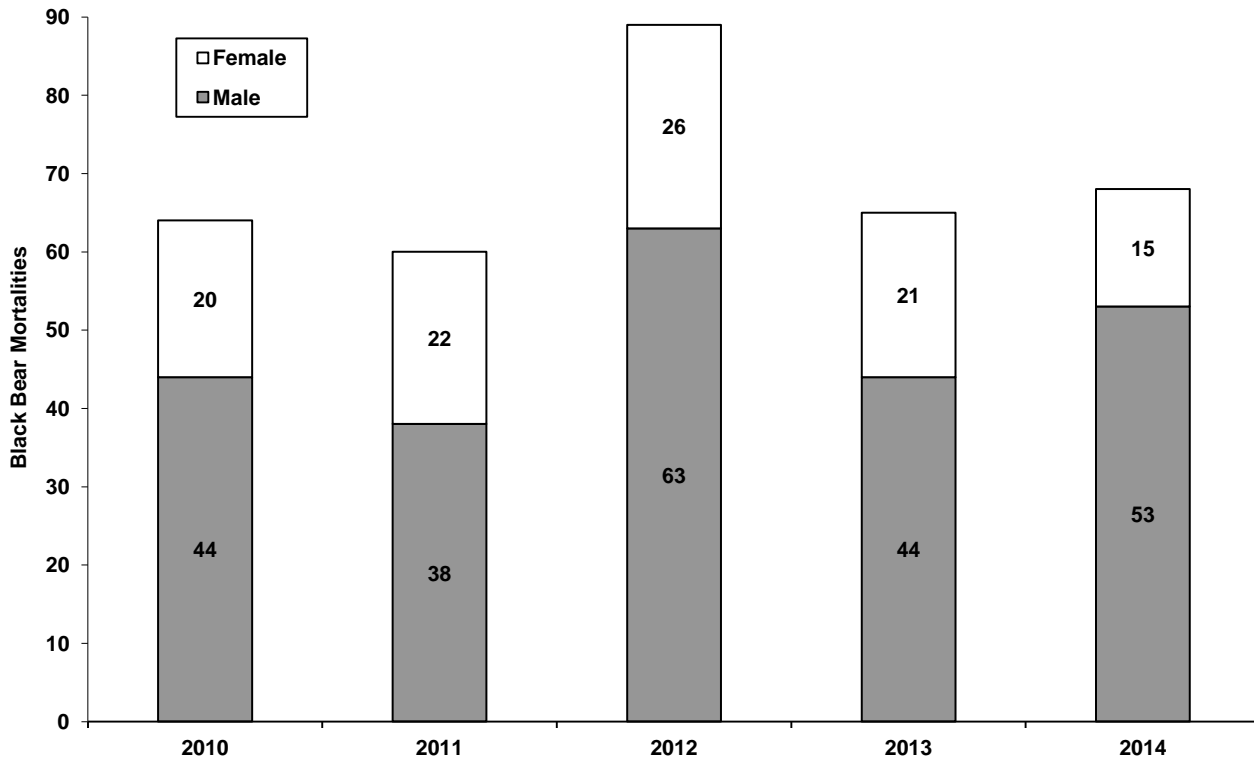


Figure 24. Number of black bear mortalities of all causes in Bighorns BMU by sex, 2010-2014.

Table 8. Harvest criteria for Bighorns BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		22.6	22.2	50.0

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

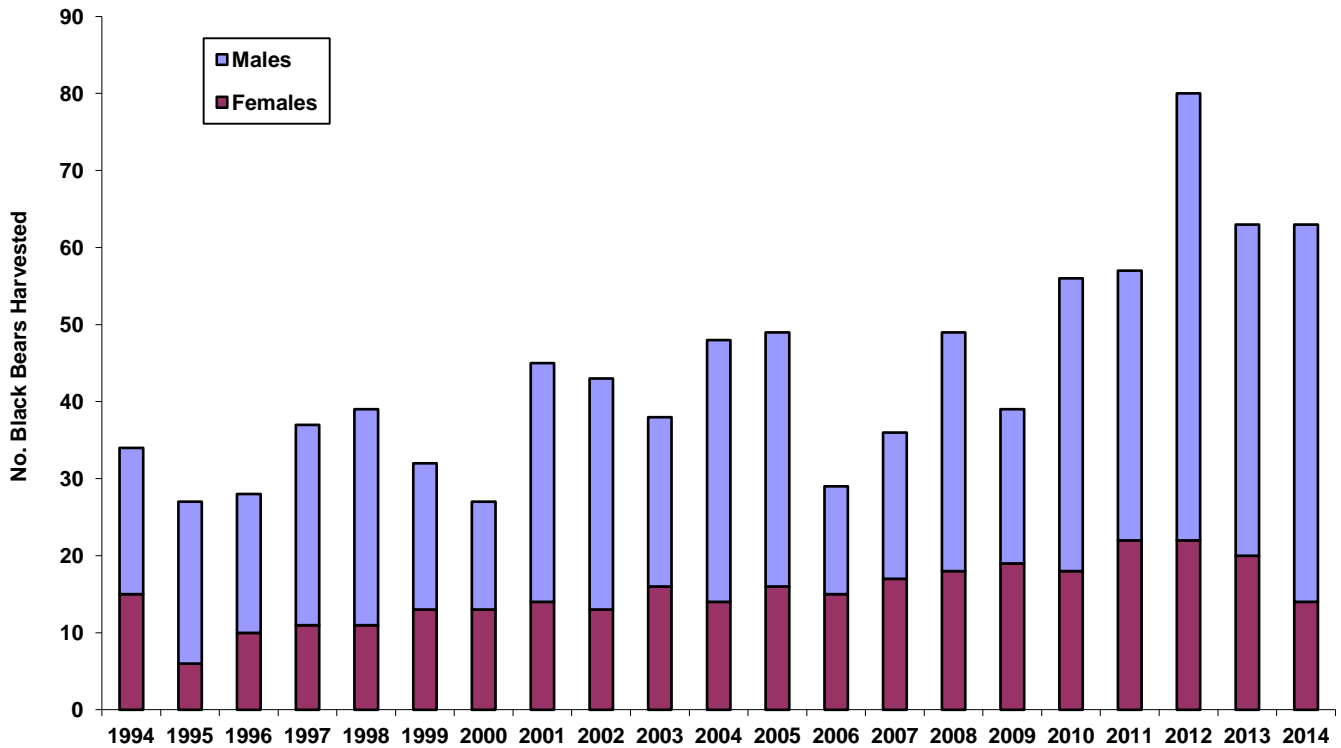


Figure 25. Legal harvest of black bears in Bighorns BMU, 1994-2014.

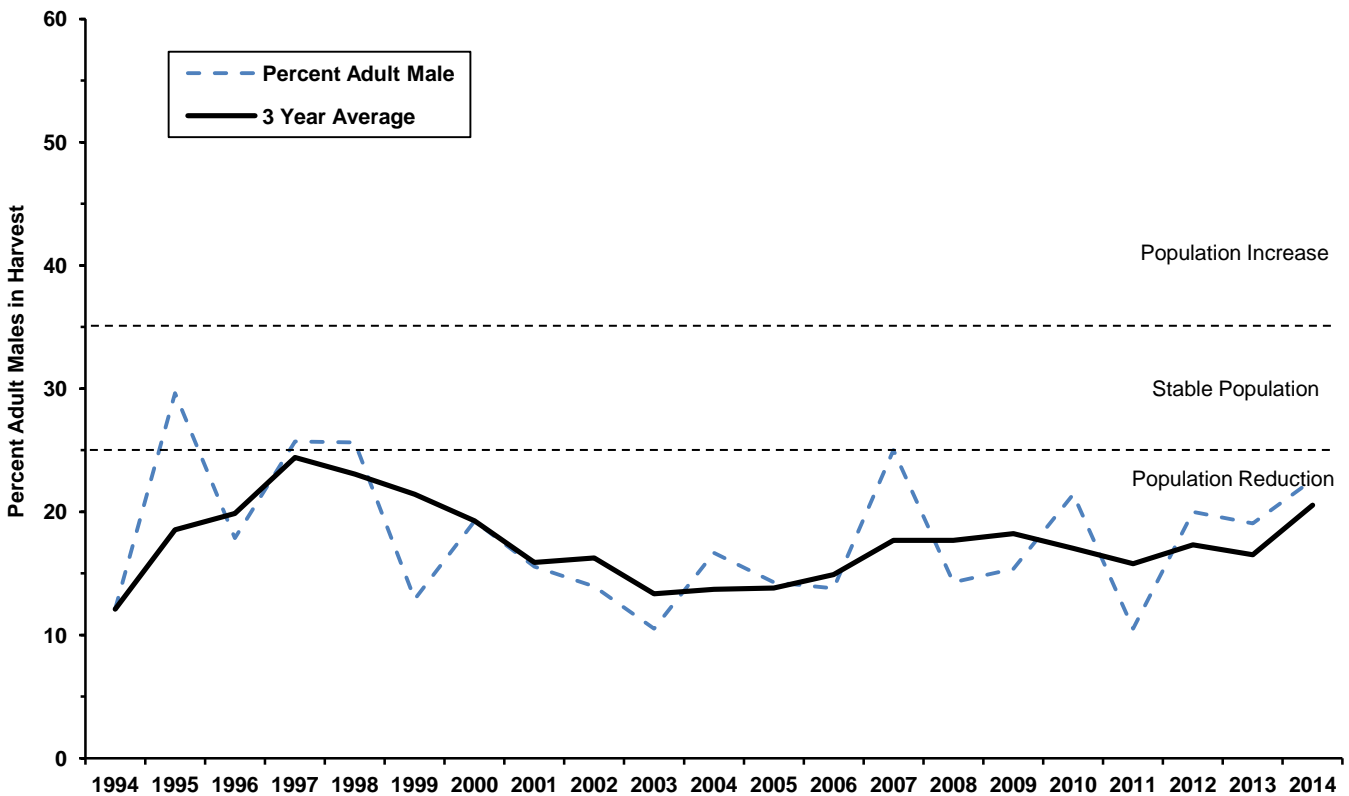


Figure 26. Percent adult males in the total legal black bear harvest in Bighorns BMU, 1994-2014.

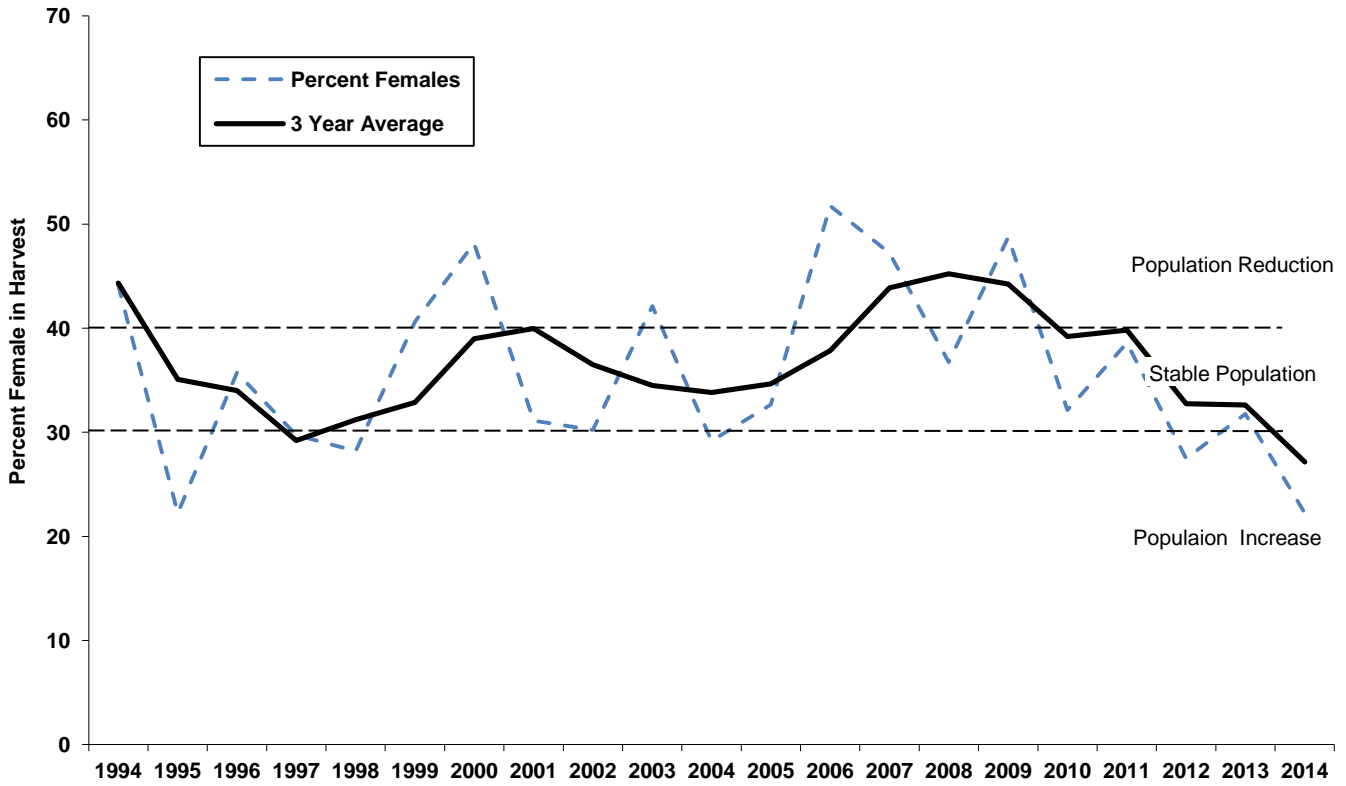


Figure 27. Percent females of the total legal black bear harvest in Bighorns BMU, 1994-2014.

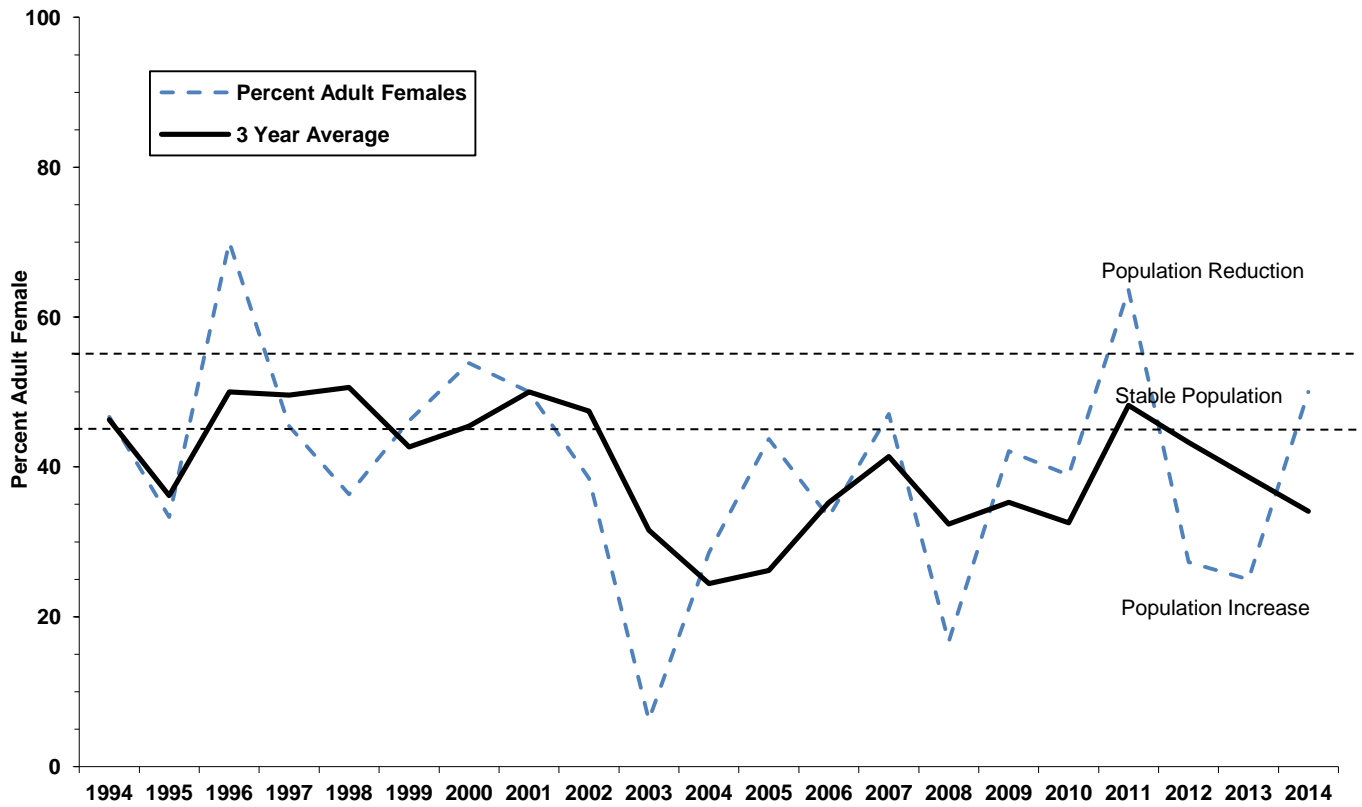


Figure 28. Percent adult females of the total female legal harvest in Bighorns BMU, 1994-2014.

SIERRA MADRES BEAR MANAGEMENT UNIT (401)

2014 Black Bear Mortality

The female mortality limit for the Sierra Madres BMU remained unchanged for the 2014 – 2016 harvest cycle (Table 9). The overall mortalities and legal harvest both increased from 2013 and above the previous record in 2011 (Figures 29 and 30). In the first year of the harvest cycle the proportion of adult males in the harvest continued a downward trend (Figure 31), a pattern that has been evident in the 3-year average since 2009. However, the percent of females in the harvest decreased in 2014, due mostly to a large increase in male harvest (Figure 32), but still remains below 40% of the total harvest (Table 10). The percent of adults in the female harvest increased sharply in 2014, likely due to small sample size (Figure 33).

In spite of increases in black bear mortality since 2011, harvest criteria for this BMU remain relatively consistent and suggest moderate harvest pressure that is affecting males, but females are less affected. Immigration from the adjacent black bear population in Colorado is likely providing an influx of bears, specifically dispersing subadult males. With 58% of the total harvest comprised of subadult males in 2014, harvest of this cohort is likely having a mitigating effect on female harvest.

Table 9. Sierra Madres BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. Yellow cells indicate season closure prior to the closing date listed in regulation (Appendix I) after reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
SIERRA MADRES	9	8	6	25	8	15	5	6/9/14	10/31/14

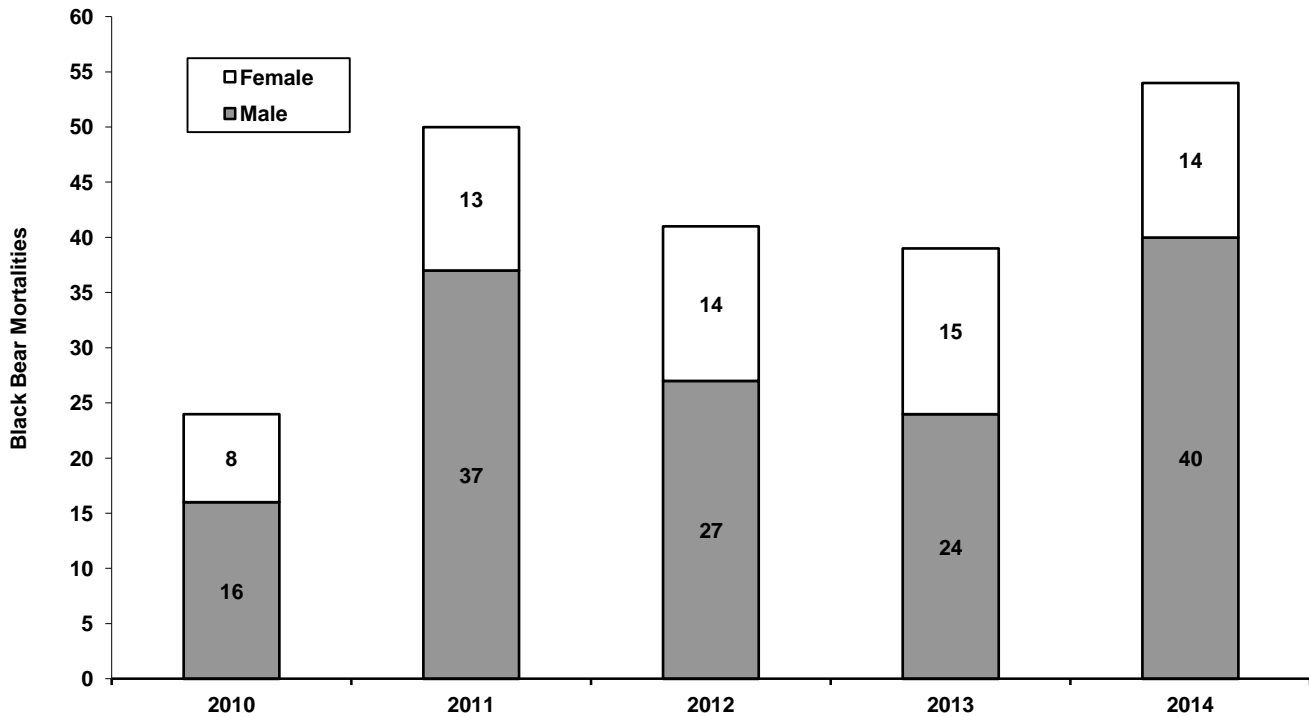


Figure 29. Number of black bear mortalities of all causes in Sierra Madres BMU by sex, 2010-2014

Table 10. Harvest criteria for Sierra Madres BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		17.6	24.5	58.3

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

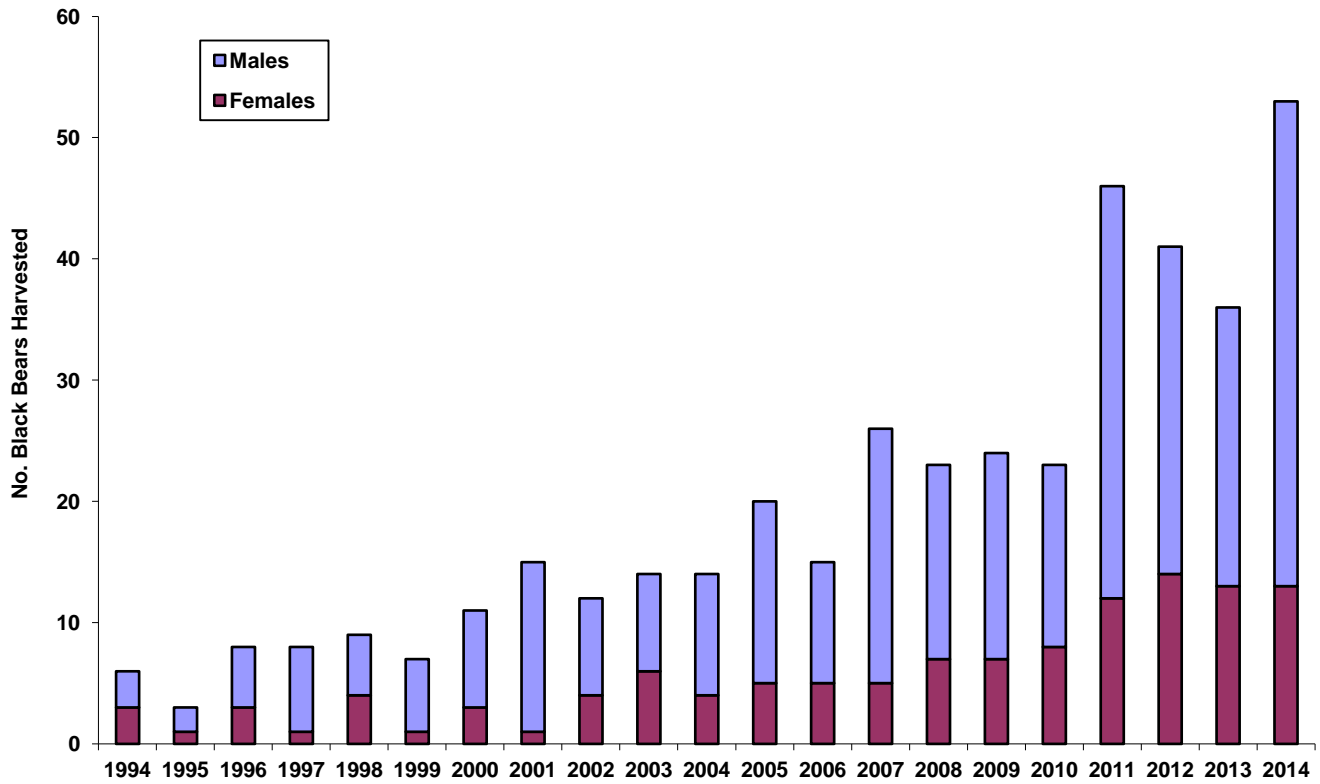


Figure 30. Legal harvest of black bears in Sierra Madres BMU, 1994-2014.

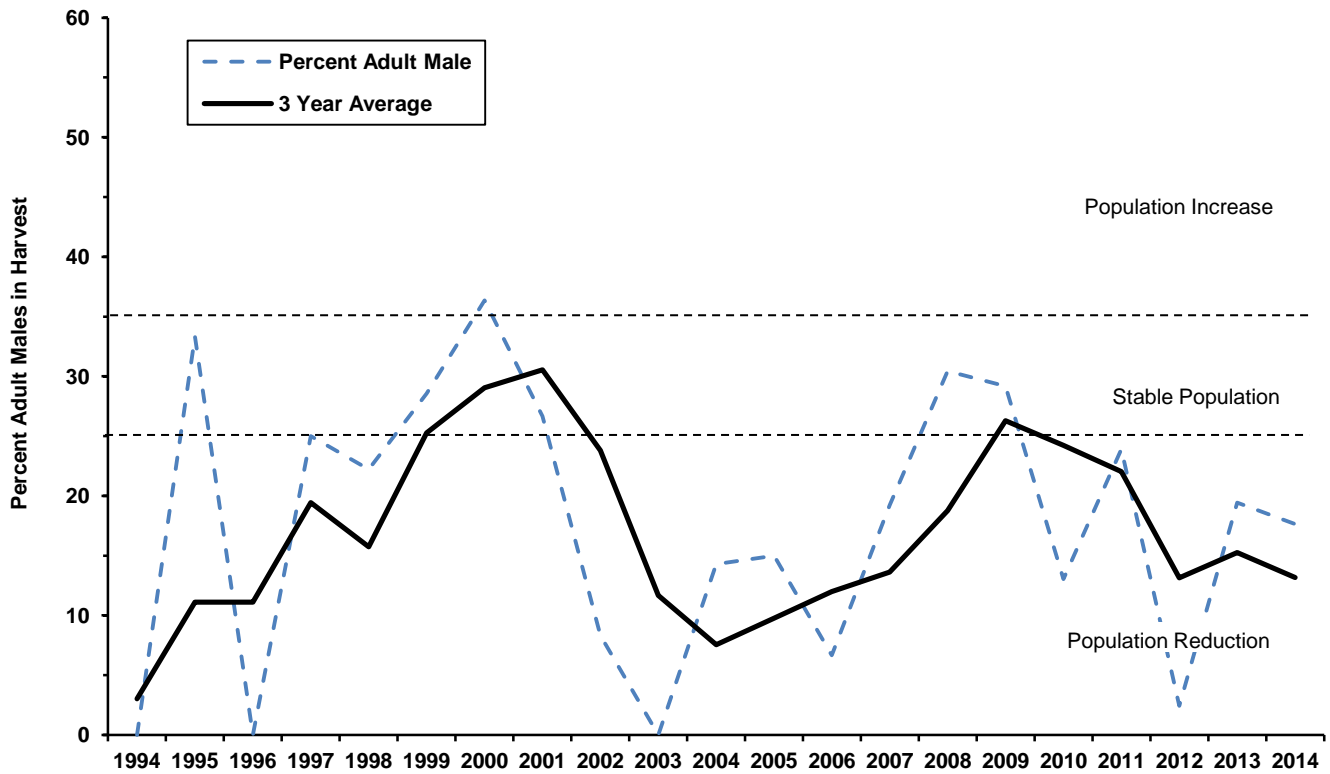


Figure 31. Percent adult males in the total legal black bear harvest in Sierra Madres BMU, 1994-2014.

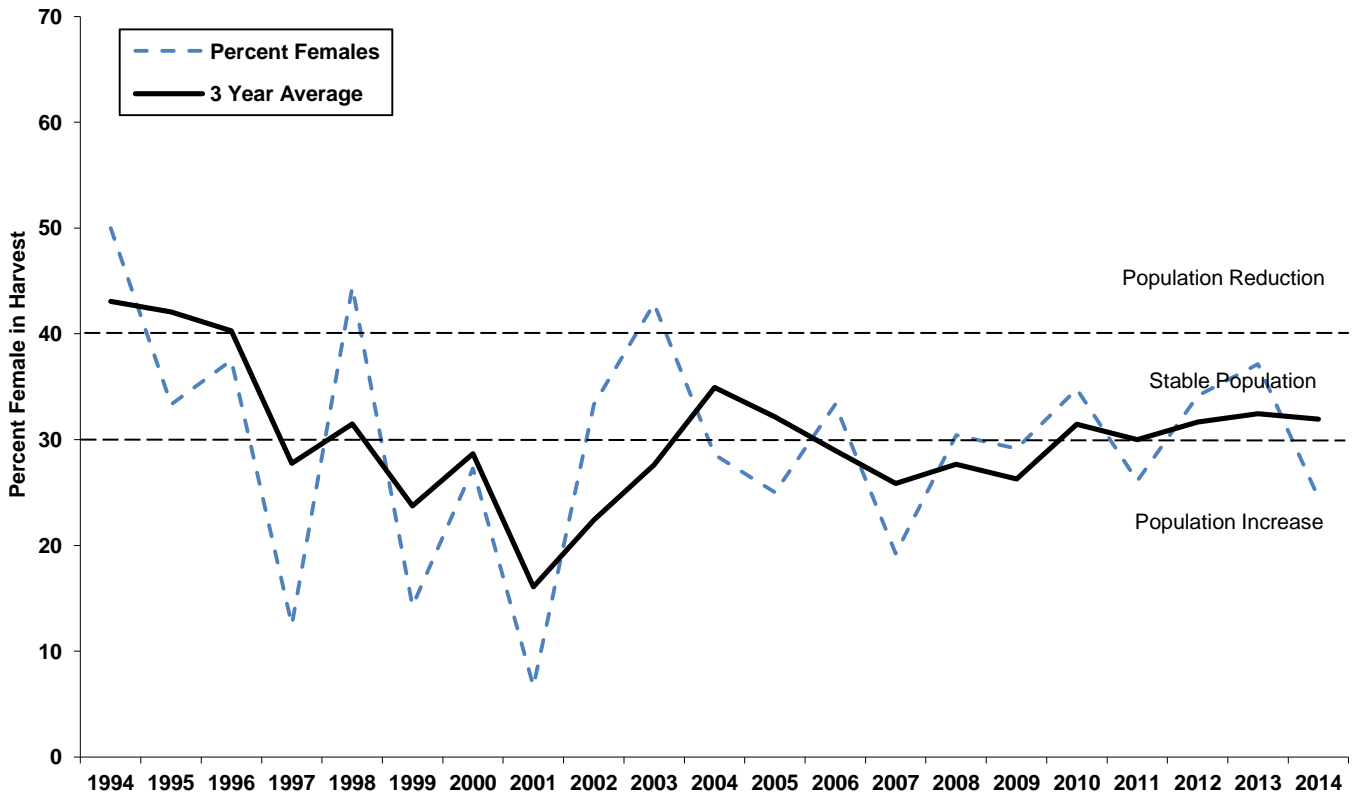


Figure 32. Percent females of the total legal black bear harvest in Sierra Madres BMU, 1994-2014.

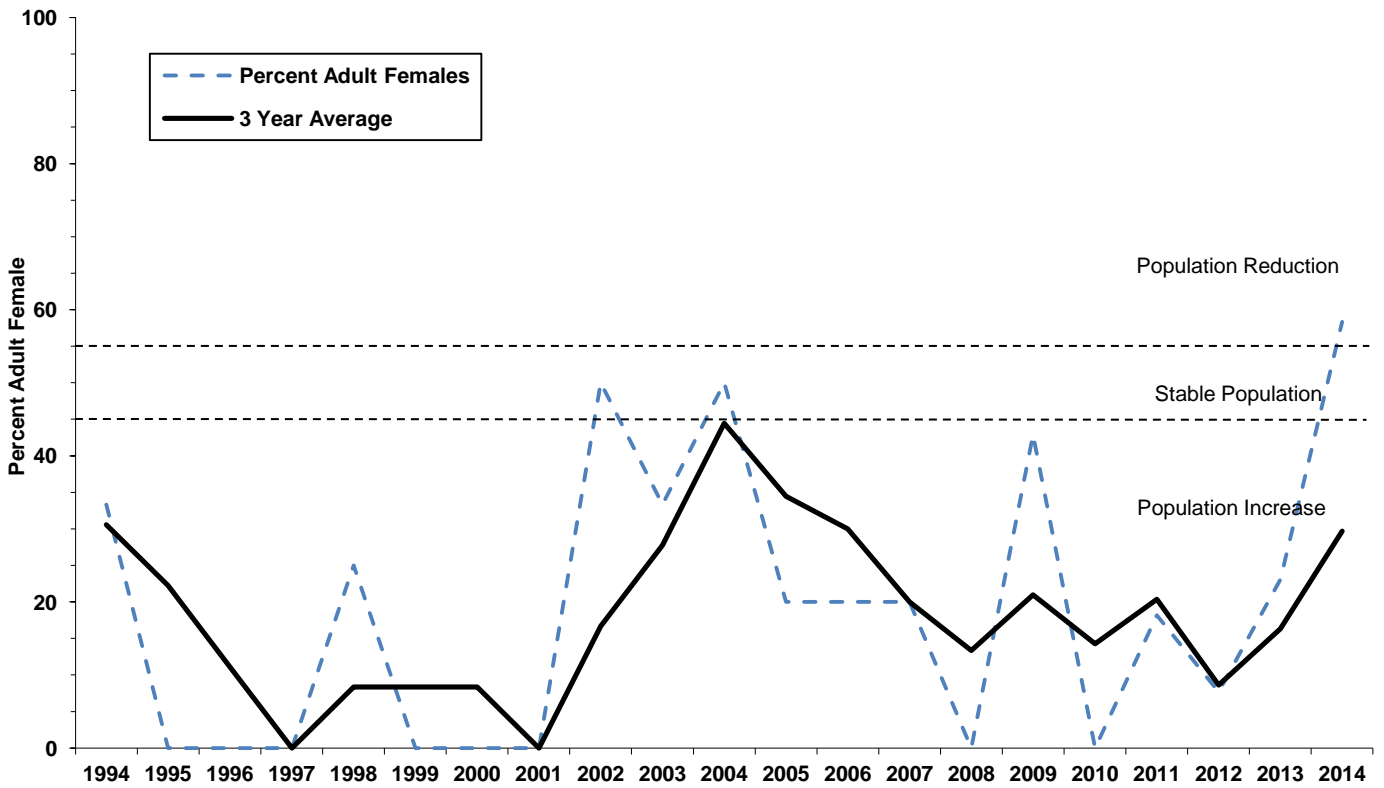


Figure 33. Percent adult females of the total female legal harvest in Sierra Madres BMU, 1994-2014.

UINTA BEAR MANAGEMENT UNIT (402)

2014 Black Bear Mortality

For the 2014 – 2016 harvest cycle, a new hunt area (Hunt Area 12) was created from the eastern portion of BMU 402 (Figure 1). This new hunt area encompasses the area to the east of Flaming Gorge Reservoir. A mortality limit of 2 females (1 spring, 1 fall) was allocated to this area. The female mortality limit for the portion of BMU 402 west of Flaming Gorge Reservoir remained at 4 females (2 spring, 2 fall) for the 2014 – 2016 seasons. In 2014, one subadult male and 2 adult males were harvested in Hunt Area 10, and one adult female was harvested in the new Hunt Area 12. All 4 bears were taken during the spring season. Small sample sizes prevent interpretation of harvest data and their relationship to the harvest criteria for BMU 402.

Table 11. Uinta BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. Yellow cells indicate season closure prior to the closing date listed in regulation (Appendix I) after reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
UINTA	10	2	2	4	0	0	0	6/15/14	10/31/14
	12	1	1	0	1	0	0	5/26/14	10/31/14

LARAMIE PEAK BEAR MANAGEMENT UNIT (501)

2014 Black Bear Mortality

Female mortality limits for hunt area 7 were increased by 1 bear each in the spring and fall, while the fall female mortality limit for hunt area 33 was decreased by 1 bear for the 2014 – 2016 harvest cycle (Table 12). Black bear mortalities and harvest in BMU 501 increased from 2013 to levels similar to those seen in 2008 – 2012 (Figure 34 and 35). In the first year of the current harvest cycle the percent of adult males in the harvest and the percent of females show wide variation from 2013, due mostly to a high proportion of male harvest in 2014 (Table 13, Figures 36 and 37). The proportion of adults in the female harvest has fluctuated around 30-40% (Figure 38), indicating that while it appears there has been a reduction in males and harvest is starting to focus on females, subadult females are currently absorbing most of the female harvest. Data from the 2015 and 2016 seasons will provide more insight into the effects of harvest on the Laramie Peak BMU and the changes to the female mortality limits for the 2014 – 2016 cycle.

Table 12. Laramie Peak BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. All seasons for this BMU closed on the date listed in regulation (Appendix I) after not reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
LARAMIE PEAK	7	4	4	7	1	7	2	5/31/14	10/31/14
	33	3	2	2	0	2	0	5/31/14	10/31/14

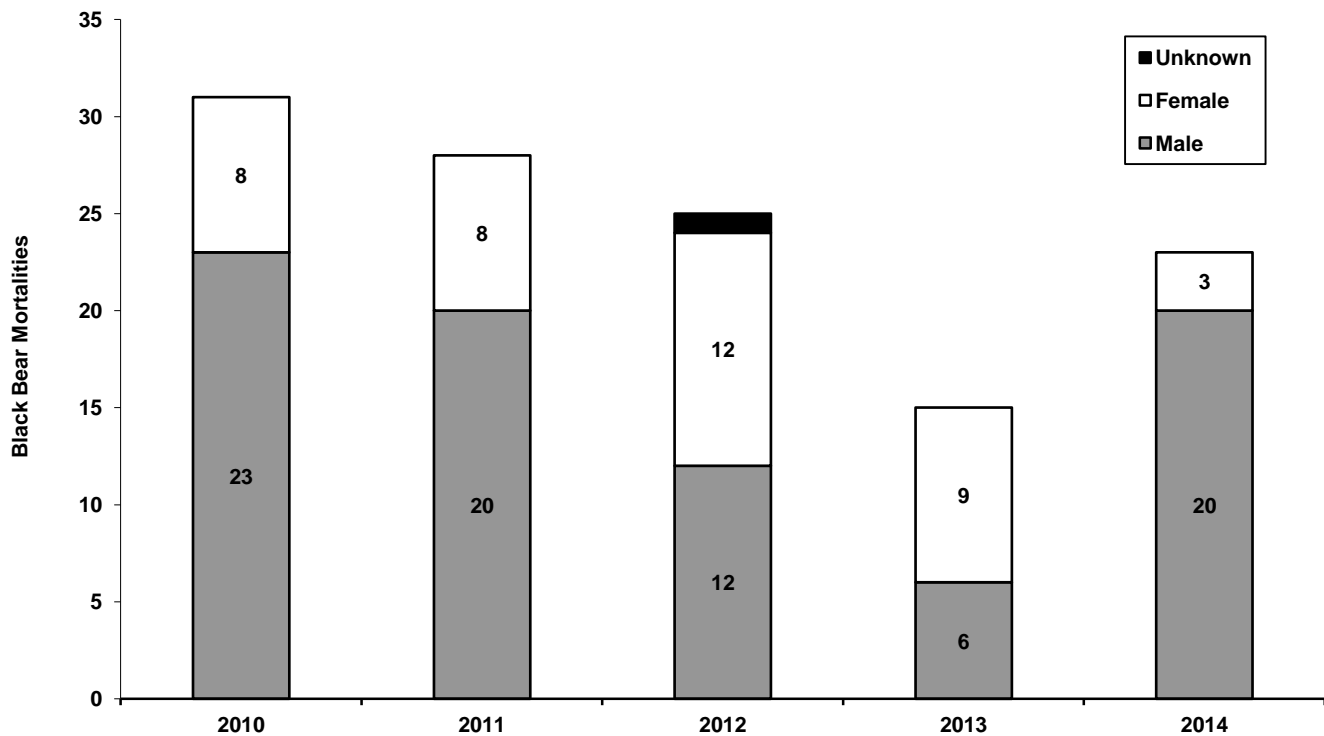


Figure 34. Number of black bear mortalities of all causes in Laramie Peak BMU by sex, 2010-2014.

Table 13. Harvest criteria for Laramie Peak BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		15.1	43.7	41.1

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

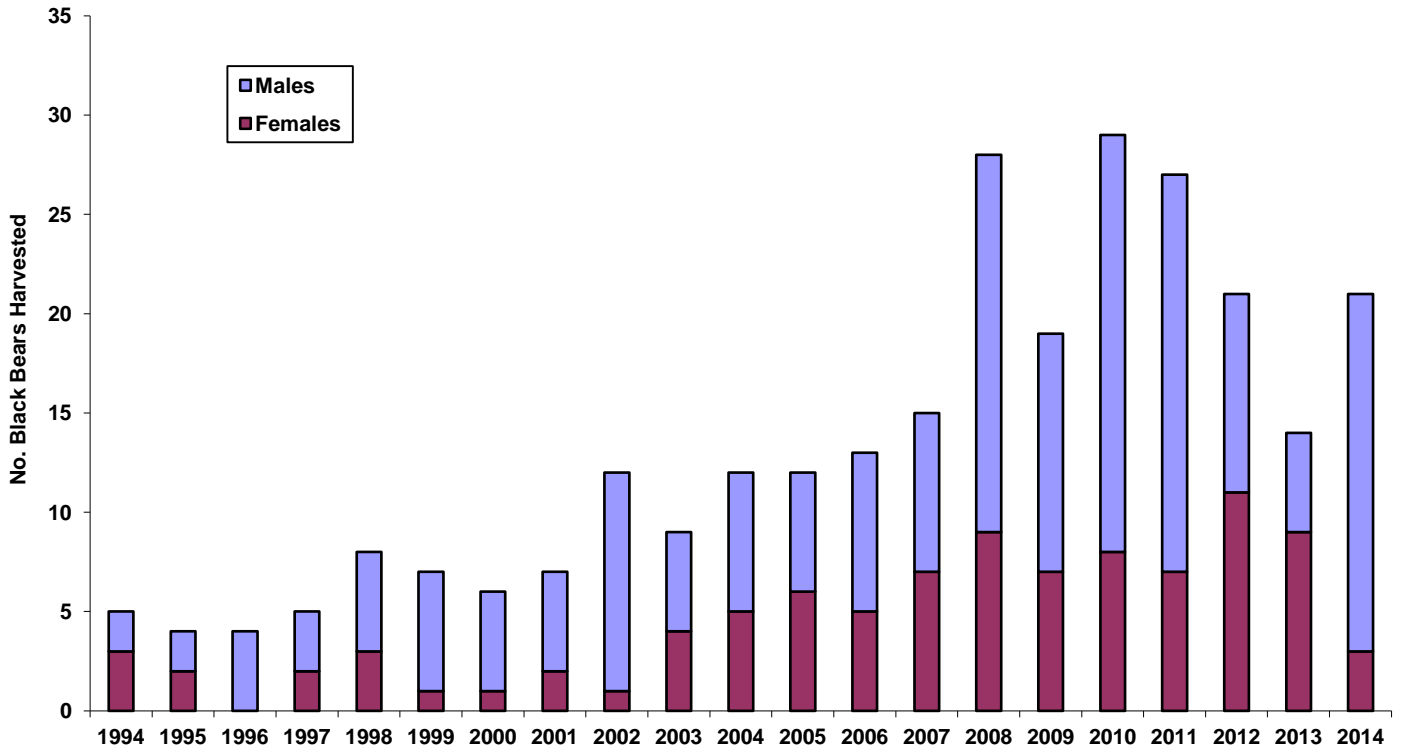


Figure 35. Legal harvest of black bears in Laramie Peak BMU, 1994-2014.

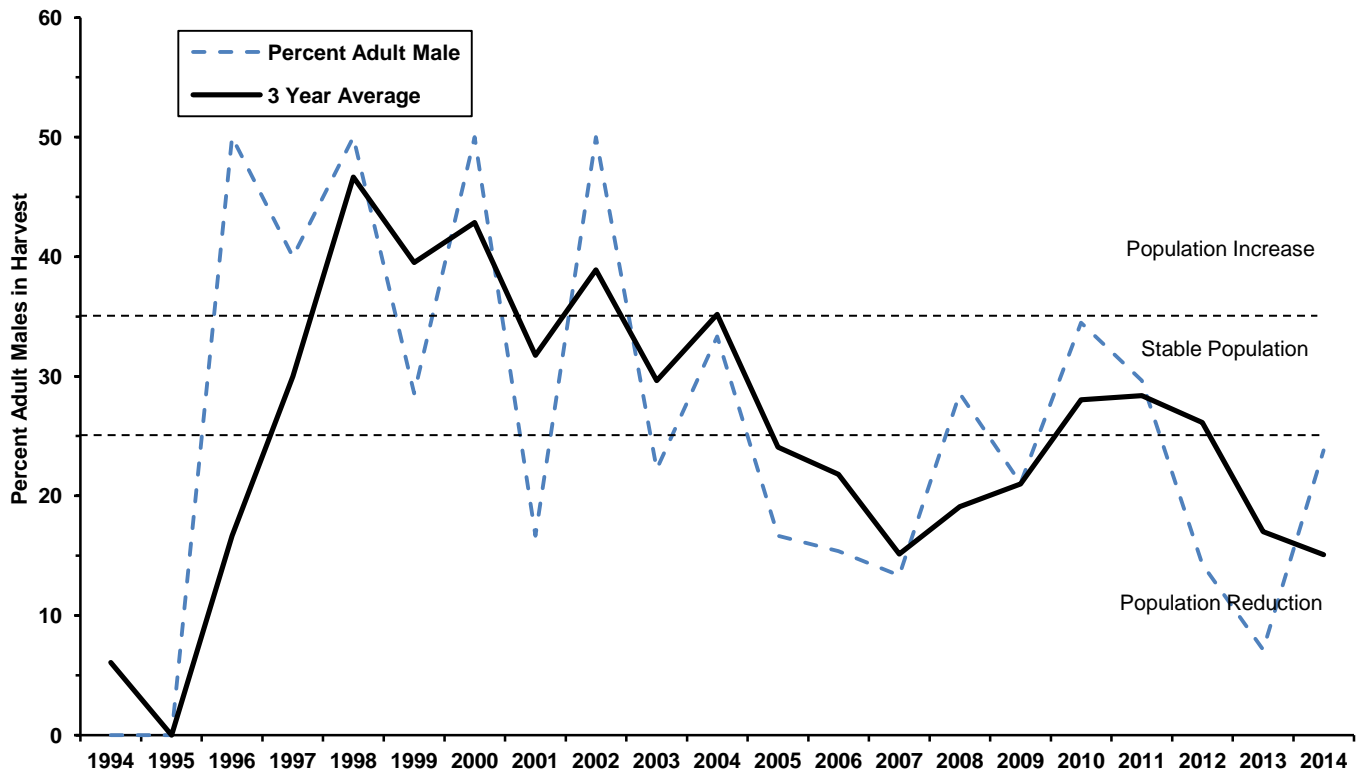


Figure 36. Percent adult males in the total legal black bear harvest in Laramie Peak BMU, 1994-2014.

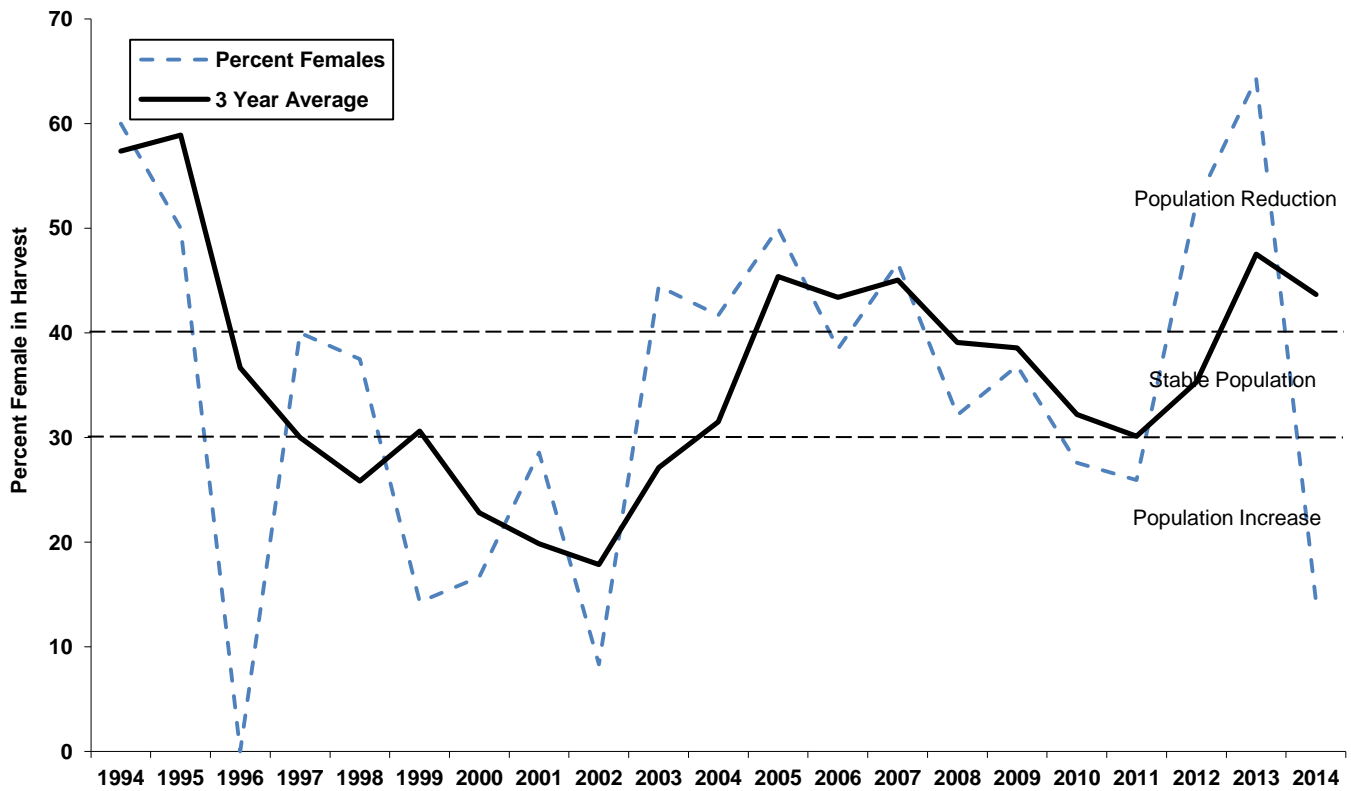


Figure 37. Percent females of the total legal black bear harvest in Laramie Peak BMU, 1994-2014.

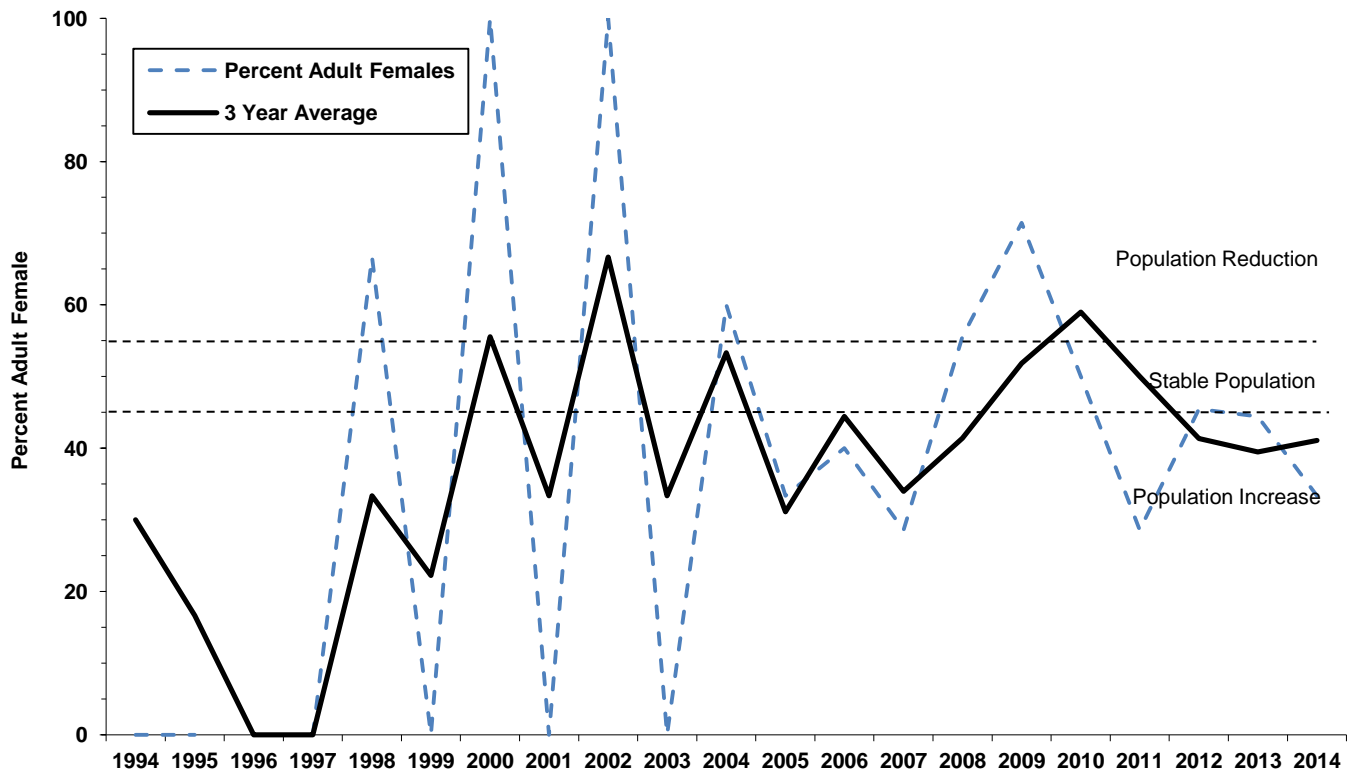


Figure 38. Percent adult females of the total female legal harvest in Laramie Peak BMU, 1994-2014.

SNOWY RANGE BEAR MANAGEMENT UNIT (502)

2014 Black Bear Mortality

Female mortality limits for the Snowy Range BMU were increased by 1 in the spring and 3 in the fall season for the 2014 – 2016 harvest cycle (Table 14). Total mortalities and harvest increased slightly above the trend of the previous 10 years, due in large part to an increase in male harvest as a result of increased mortality limits (Figure 39 and 40). The current harvest trend suggests that the adult male and percent female criteria are moving back into the ‘stable’ to ‘increase’ range, indicating a continued upward trend in the black bear population for this BMU (Table 8, Figures 41 and 42). The percent of adults in the female harvest also decreased to the ‘stable’ range (Figure 43), but small sample size results in major fluctuations in this harvest criterion.

Immigration from the adjacent black bear population in Colorado likely provides a source of bears that contribute to the upward trend of this population, with moderate harvest effects allowing for a slight rebound in the population.

Table 14. Snowy Range BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. All seasons for this BMU closed on the date listed in regulation (Appendix I) after not reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
SNOWY RANGE	8	5	6	10	3	9	4	6/7/14	10/31/14

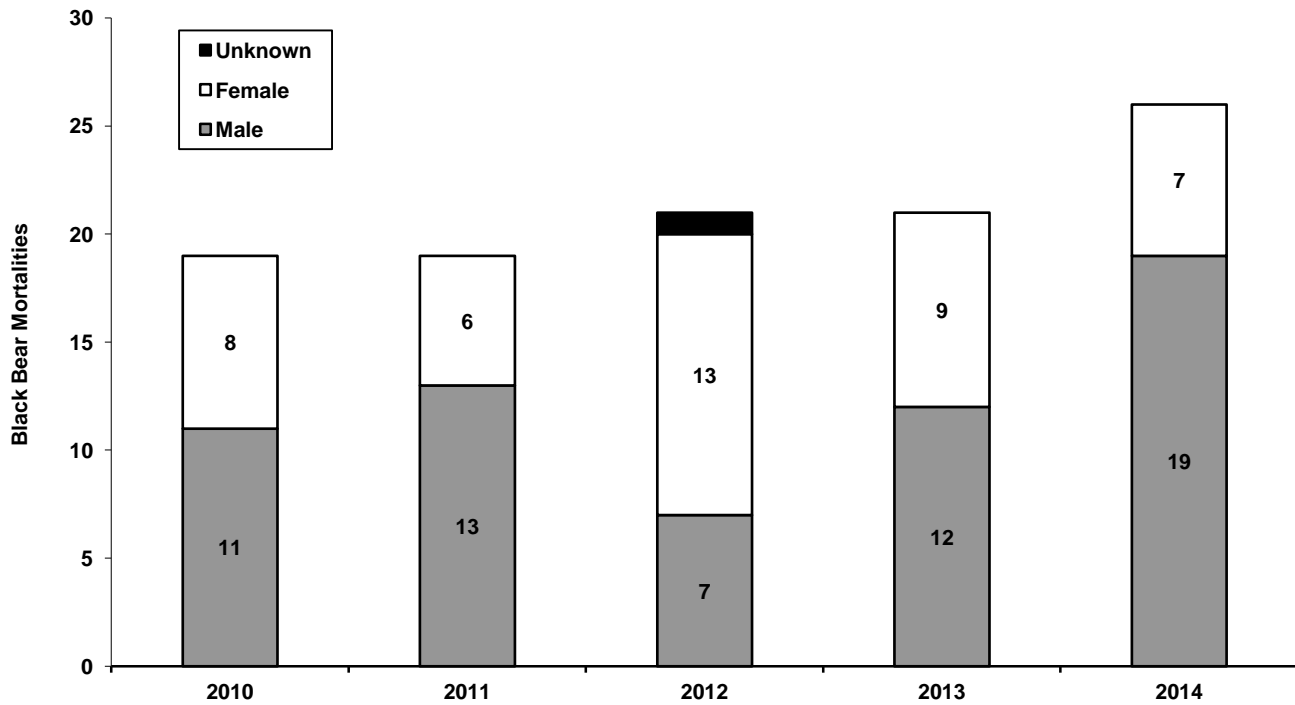


Figure 39. Number of black bear mortalities of all causes in Snowy Range BMU by sex, 2010-2014.

Table 15. Harvest criteria for Snowy Range BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		38.5	26.9	57.1

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

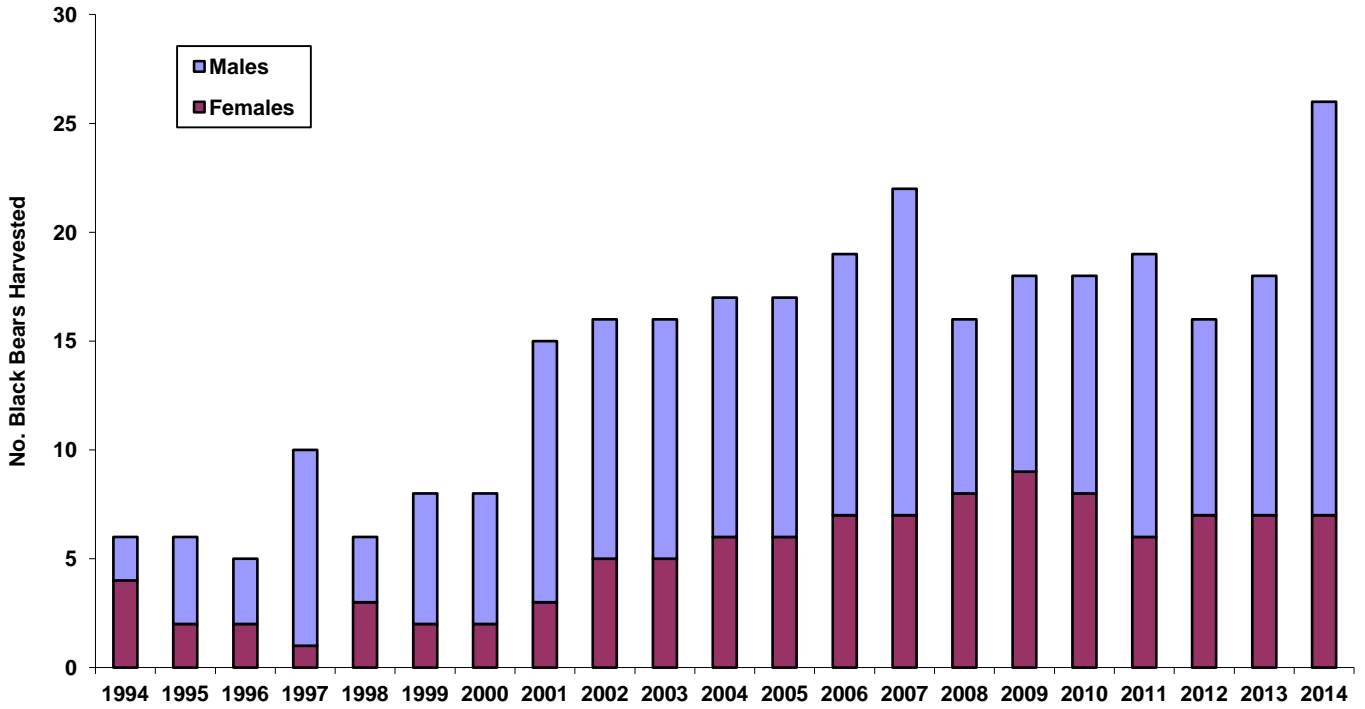


Figure 40. Legal harvest of black bears in Snowy Range BMU, 1994-2014.

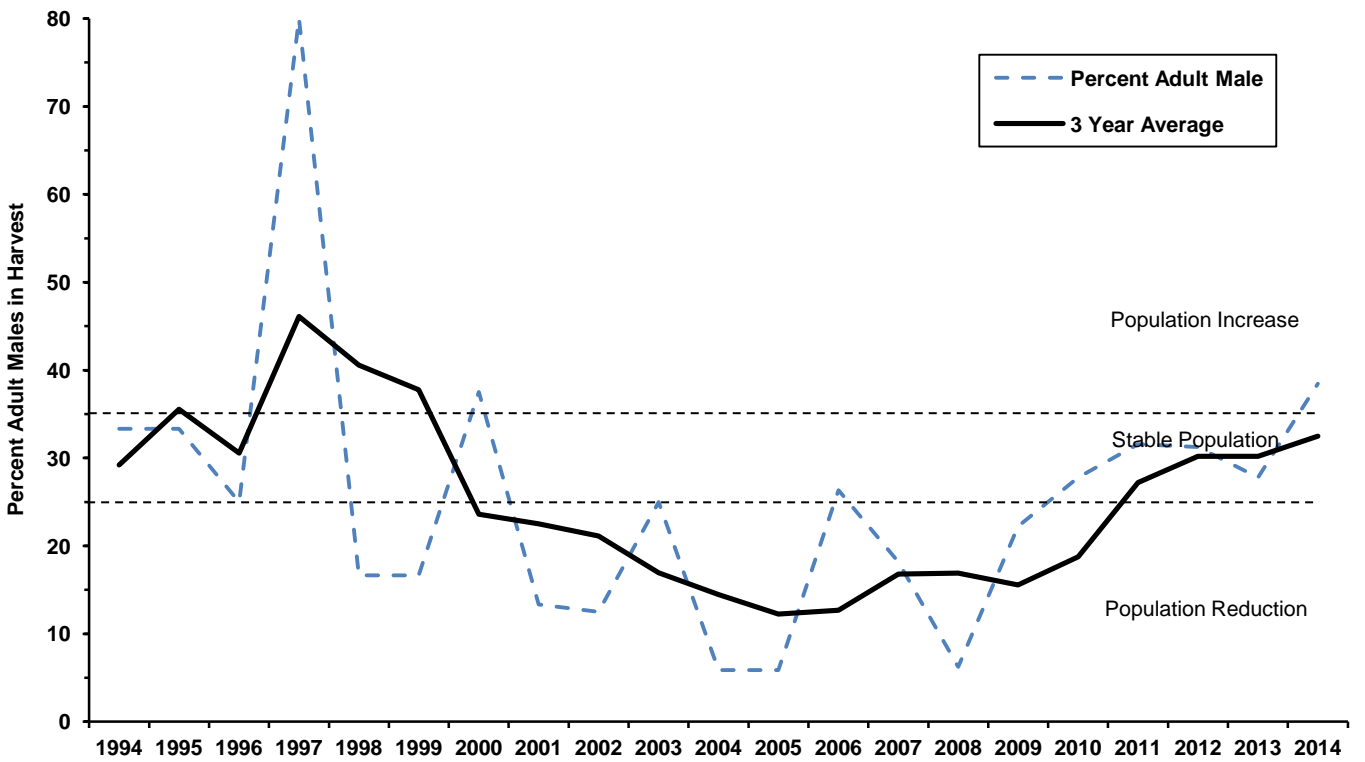


Figure 41. Percent adult males in the total legal black bear harvest in Snowy Range BMU, 1994-2014.

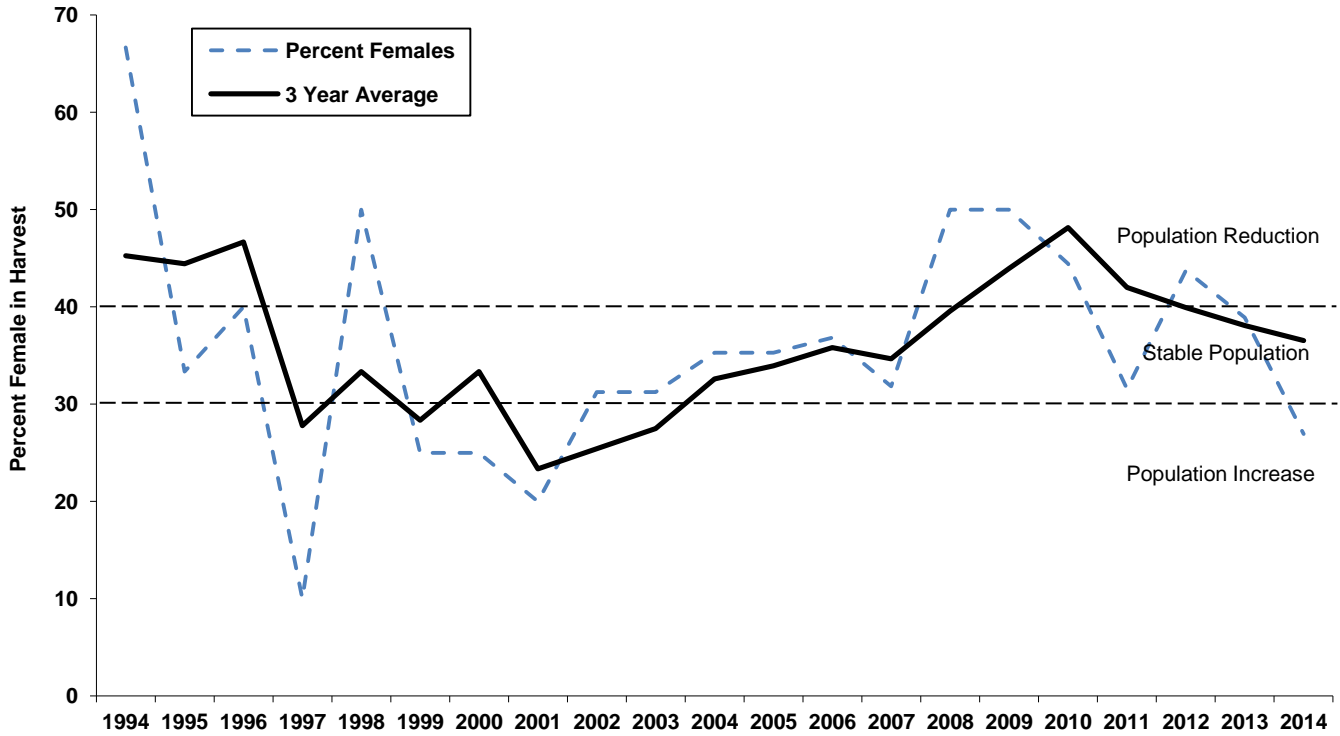


Figure 42. Percent females of the total legal black bear harvest in Snowy Range BMU, 1994-2014.

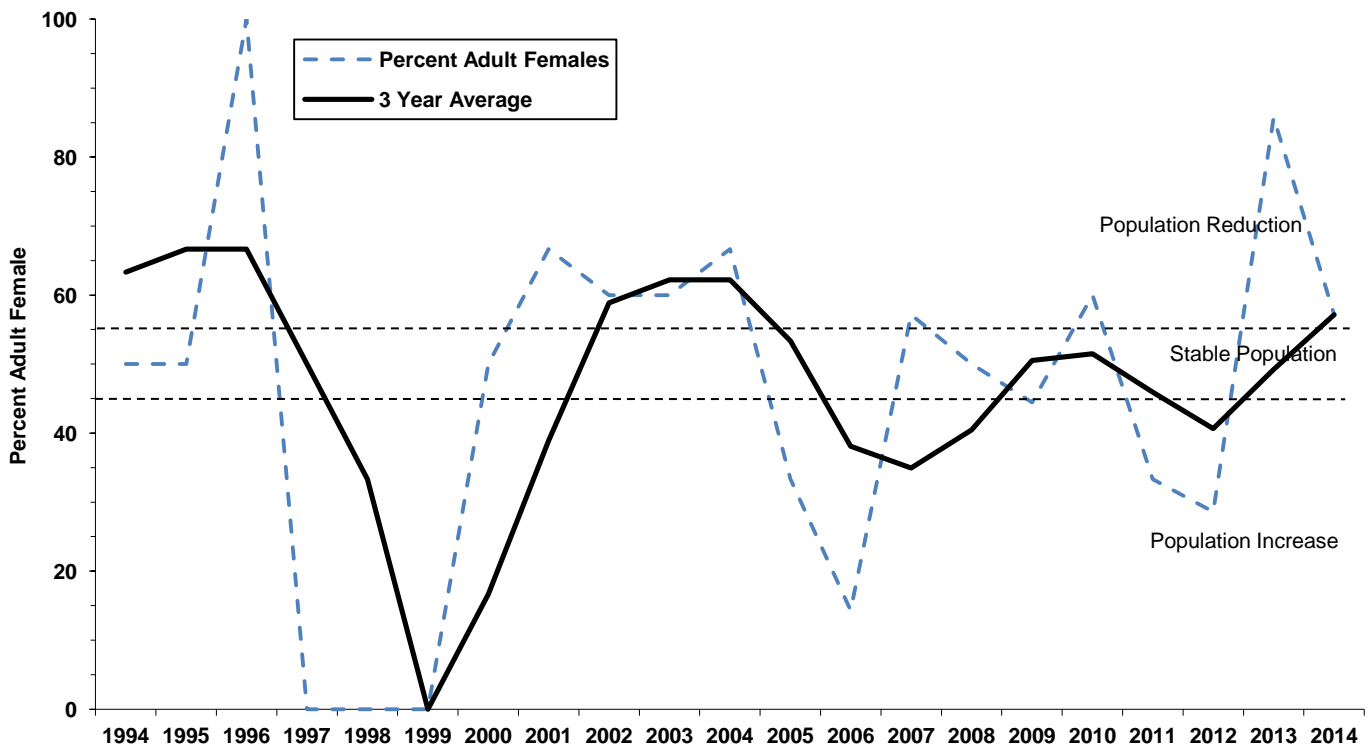


Figure 43. Percent adult females of the total female legal harvest in Snowy Range BMU, 1994-2014.

WIND RIVER RANGE BEAR MANAGEMENT UNIT (601)

2014 Black Bear Mortality

Female mortality limits increased by 1 in spring and 1 in the fall seasons for hunt area 13, while the mortality limits for all other hunt areas in the Wind River BMU remained unchanged for the 2014 – 2016 harvest cycle (Table 16). Total black bear mortalities and legal harvest in BMU 601 decreased by approximately 35% from 2013 harvest (Figures 44 and 45). The percent of adult males and the percent of females in the total harvest in the ‘stable’ to ‘increase’ range and the percent of adults in the female harvest fluctuating around ‘stable’ (Table 17; Figures 46-48), the black bear population in the Wind River BMU appears to be generally stable and experiencing light moderate harvest effects.

Table 16. Wind River BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. Yellow cells indicate season closure prior to the closing date listed in regulation (Appendix I) after reaching the female mortality limit.

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
WIND RIVER	13	5	5	8	6	2	2	6/13/14	10/31/14
	19	10	8	7	3	4	1	6/15/14	11/15/14
	28	4	4	1	0	2	0	6/15/14	10/31/14
	31	2	2	0	0	0	0	6/15/14	10/31/14

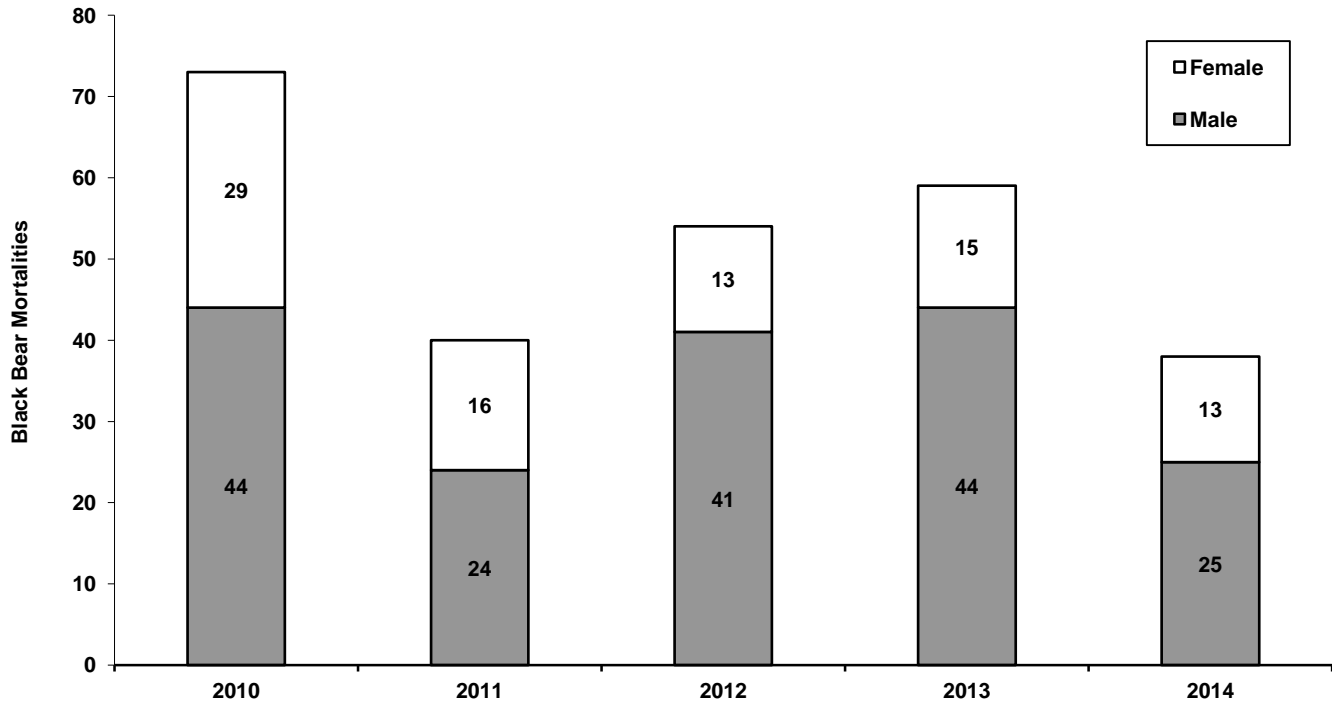


Figure 44. Number of black bear mortalities of all causes in Wind River BMU by sex, 2010-2014.

Table 17. Harvest criteria for Wind River BMU legal black bear harvest, 2014. Criteria are presented by objective as percent adult males in the total harvest, percent females in the total harvest, and percent adult females in the female harvest.

Year	Objective	Harvest Criteria		
		% Adult ^a Males in Total Harvest	% Females in Total Harvest	% Adult ^a Females in Female Harvest
	Population Reduction	< 25%	> 40%	> 55%
	Stable Population	25 – 35%	30 – 40%	45 – 55%
	Population Increase	> 35%	< 30%	< 45%
2014		38.9	33.3	58.3

^a Adults classified as males and females ≥ 5 years of age based on tooth cementum annuli.

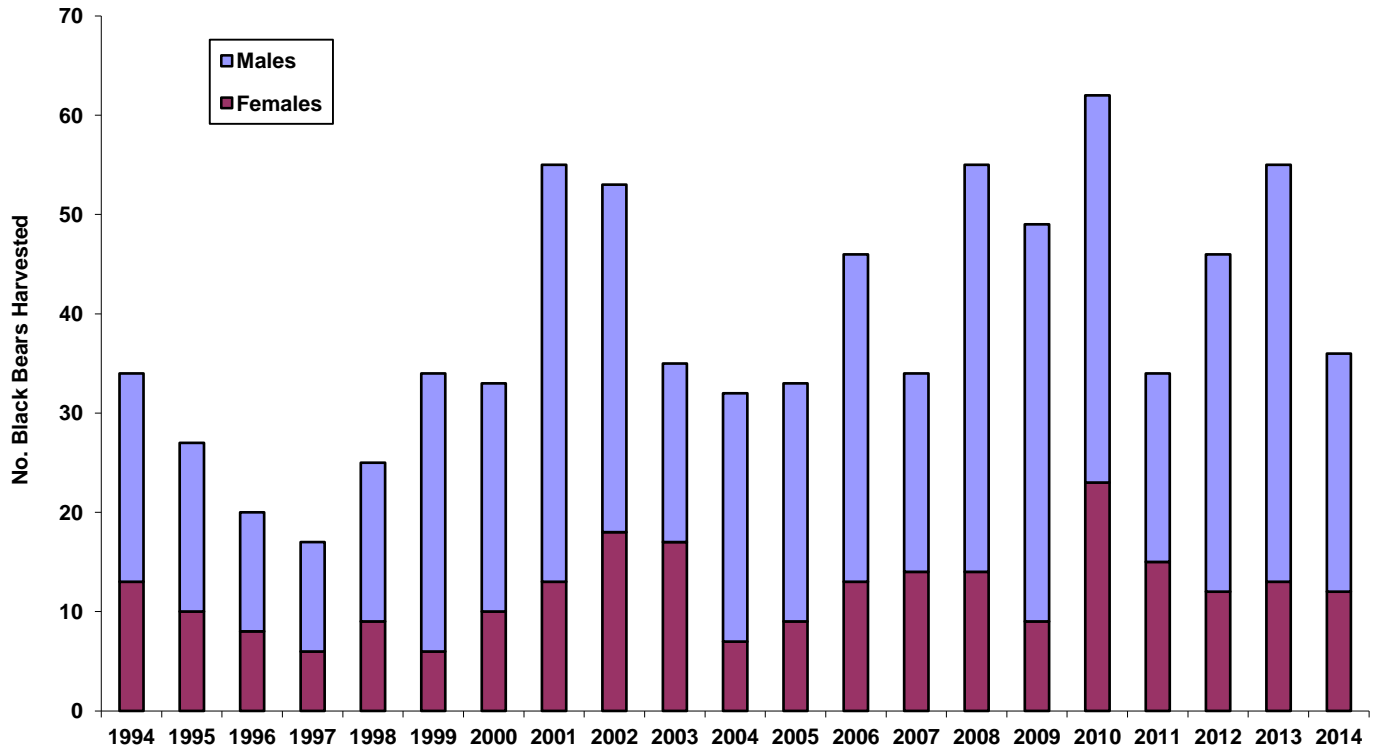


Figure 45. Legal harvest of black bears in Wind River BMU, 1994-2014.

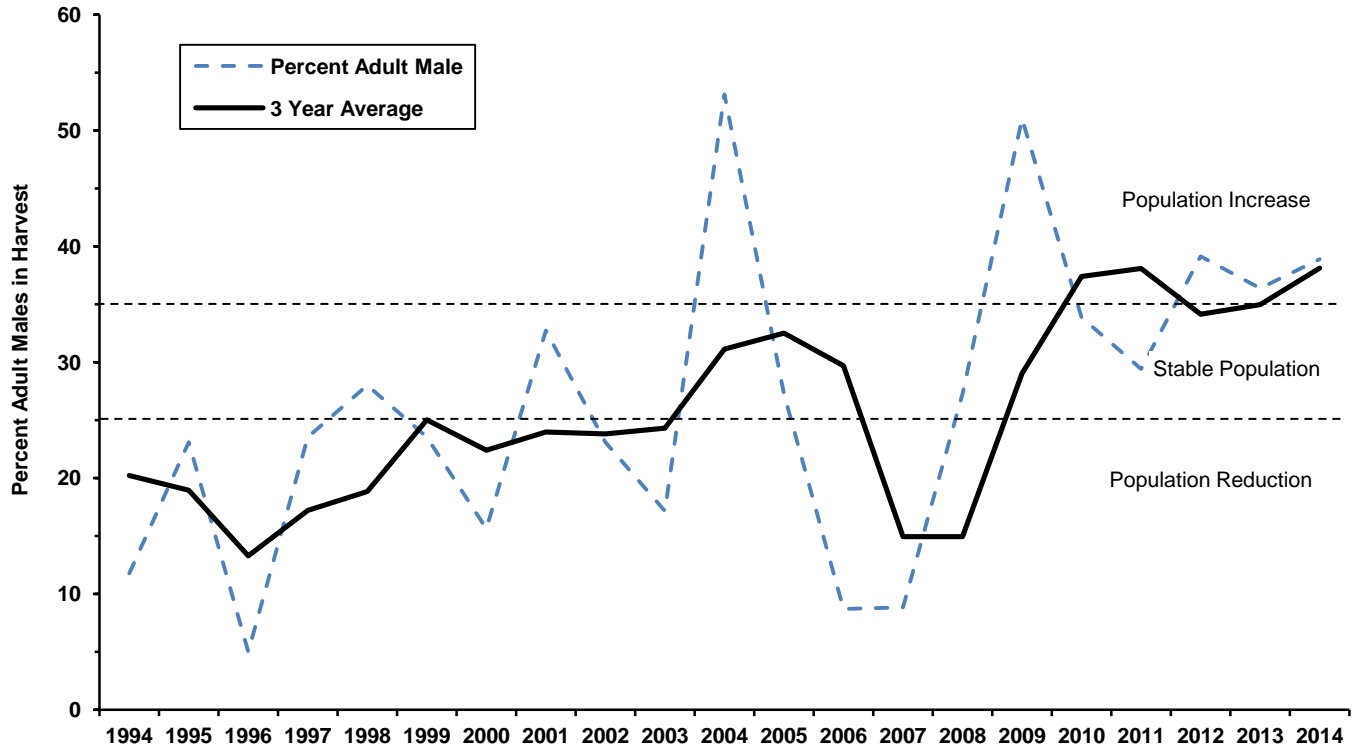


Figure 46. Percent adult males in the total legal black bear harvest in Wind River BMU, 1994-2014.

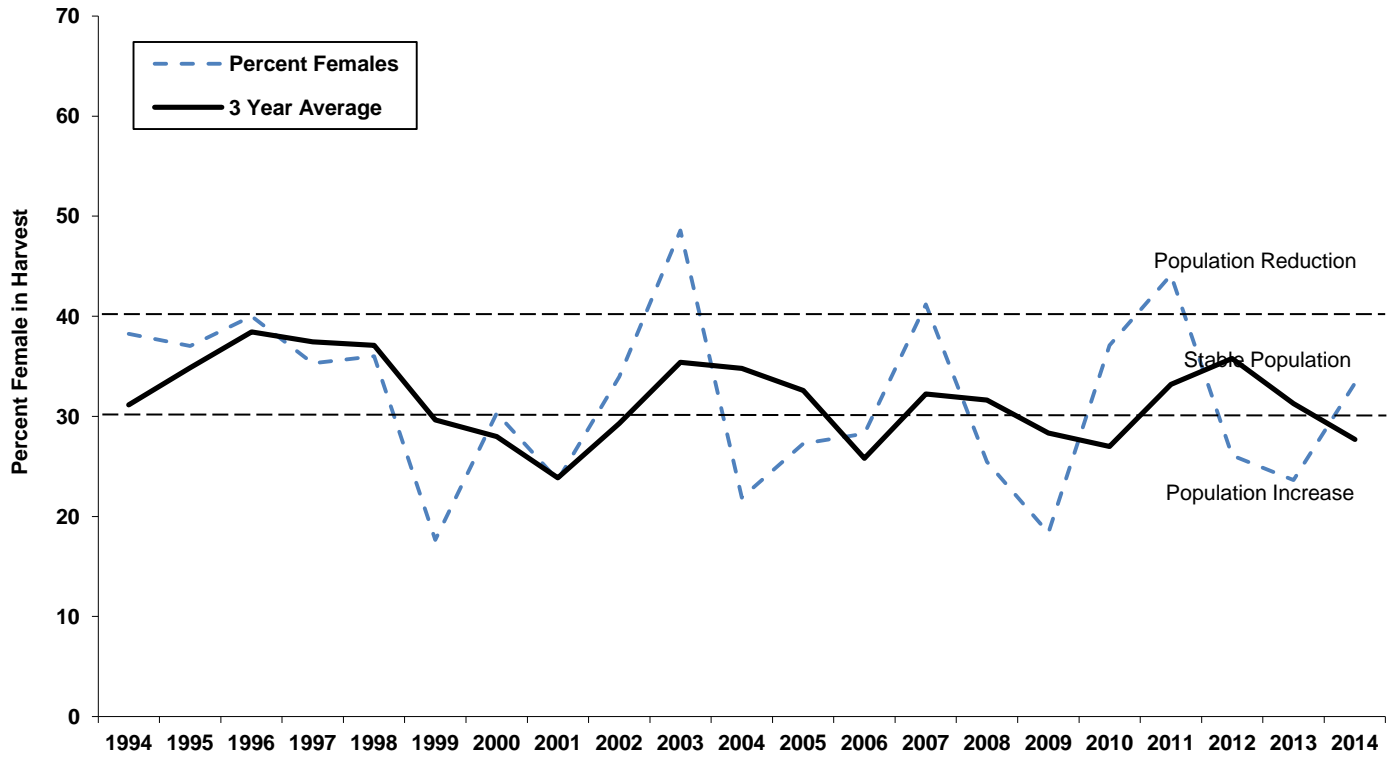


Figure 47. Percent females of the total legal black bear harvest in Wind River BMU, 1994-2014.

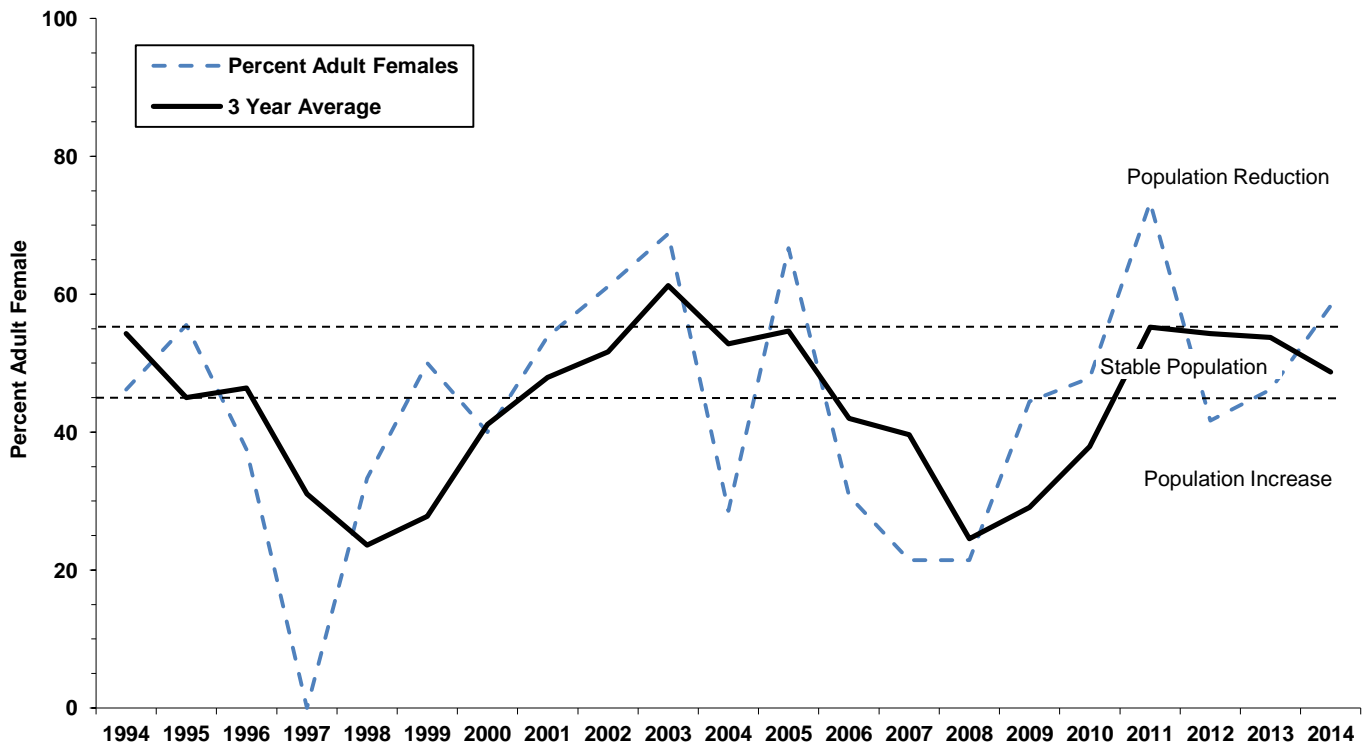


Figure 48. Percent adult females of the total female legal harvest in Wind River BMU, 1994-2014.

STATEWIDE HUNT AREA 35

During the 2011 season-setting process, hunt area 35 was created to include all areas of Wyoming that previously did not fall within established hunt areas. This area is not considered quality black bear habitat and contains few bears. However, black bears, especially subadult males dispersing from higher quality habitats, may move through and occasionally take up residence in some of the smaller, more isolated mountain ranges and riparian habitats of the state. Area 35 was created to provide hunting opportunity for these ranges. The area has no female mortality limit and the season runs from April 15 to June 15 and August 1 to October 31 (Table 18).

There were 9 black bear mortalities in hunt area 35 in 2014 (Figure 49), 5 during the spring season and 4 during the fall. These mortalities were distributed throughout central and eastern Wyoming. Seven of the 9 mortalities were subadult males. The remaining 2 mortalities were an adult male and subadult female legally harvested near a high density population in the Bighorn Mountains. Of note was a mortality near the town of Lingle, only 20 miles from the Nebraska border as well as 2 legally harvested bears in the Bear Lodge Mountains of northeastern Wyoming.

Table 18. Statewide BMU female mortality limits, harvest (legal/illegal harvest) by sex and season, and season closure dates for the 2014 black bear hunting season. All seasons for this BMU closed on the date listed in regulation (Appendix I).

		Female Mortality Limit		Harvest				Season Closure Dates	
				Spring		Fall			
MGMT UNIT	HUNT AREA	Spring	Fall	M	F	M	F	Spring	Fall
STATEWIDE	35	NA	NA	3	0	3	1	6/15/14	10/31/14

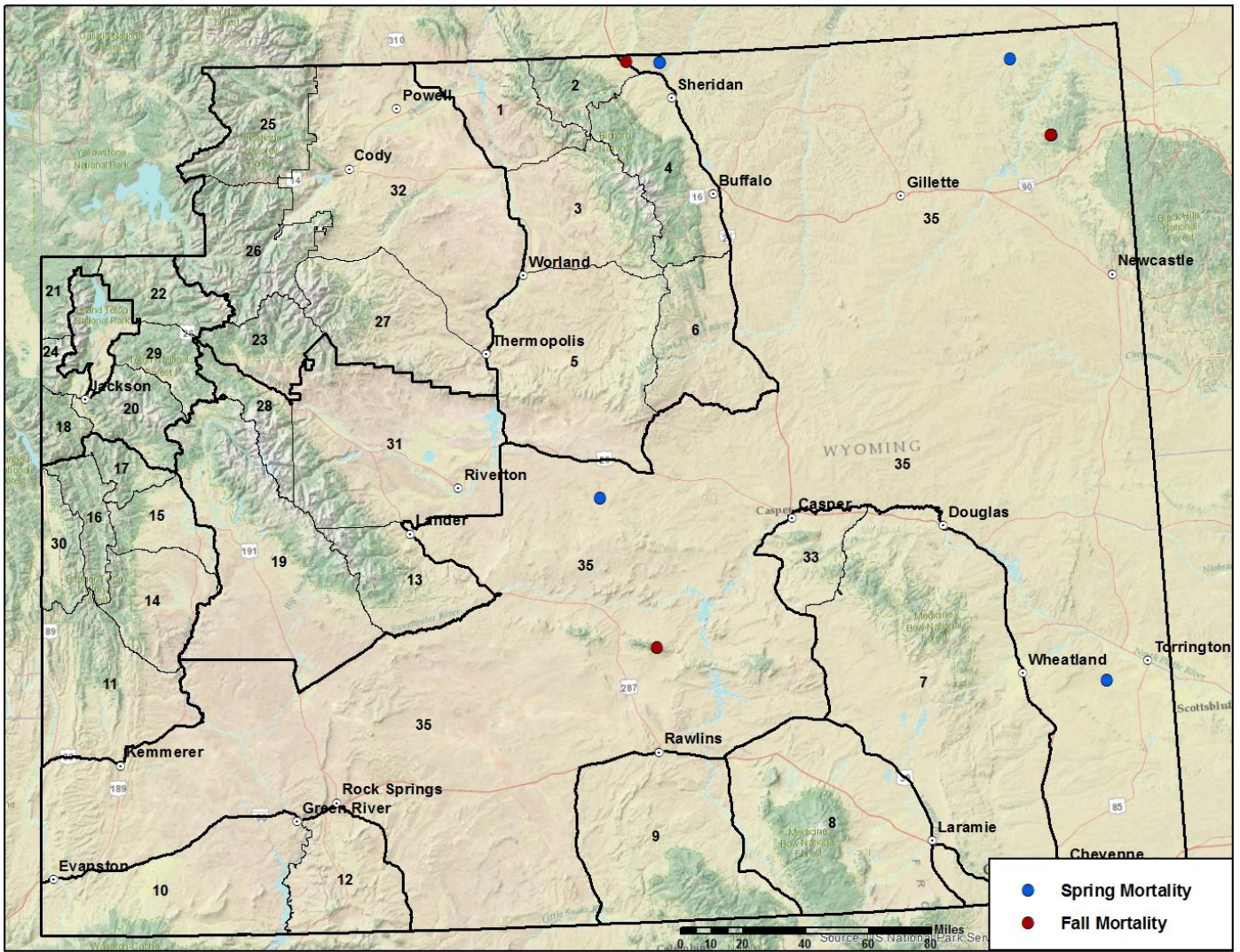


Figure 49. Statewide hunt area 35 black bear mortalities by season, 2014.

Appendix I. Wyoming black bear hunting season dates and seasonal female mortality limits by management unit and hunt area, 2014.

Black Bear Management Units	Hunt Areas	Season Dates		Female Mortality Limits
		Archery	General	
Bighorns (301)	1, 2	May 1-14	May 15-June 15 Sept.1-Oct. 31	8 Spring 6 Fall
	3, 4	May 1-14	May 1-June 15 Sept. 1-Oct. 31	6 Spring 4 Fall
	5, 6		May 1-June 15 Aug. 15-Nov. 15	2 Spring 2 Fall
Laramie Peak (501)	7		April 15-May 31 Sept. 1-Oct. 31	4 Spring 4 Fall
	33		April 15-May 31 Sept 1-Oct 31	3 Spring 2 Fall
Snowy Range (502)	8	April 15-30 Sept. 15-30	May 1-June 7 Oct. 1-31	5 Spring 6 Fall
Sierra Madres (401)	9	April 15-30 Sept. 1-30	May 1-June15 Oct. 1-31	8 Spring 6 Fall
Uinta (402)	10	April 15-30 Sept. 1-30	May 1-June15 Oct. 1-31	2 Spring 2 Fall
	12	April 15-30 Sept. 1-30	May 1-June15 Oct. 1-31	1 Spring 1 Fall
Greys River (102)	11	April 15-30 Aug. 15-31	May 1-June15 Sept. 1- Oct. 31	5 Spring 5 Fall
	14, 15, 16 17, 30	April 15-30 Aug. 15-31	May 1-June 15 Sept. 1-Oct 31	30 Spring 18 Fall
Wind River (601)	13	April 15-30 Aug. 15-31	May 1-June 15 Aug. 1-31-valid only in that portion of Hunt Area 13 within the Popo Agie Wilderness Sept 1-Oct. 31	5 Spring 5 Fall
	19	April 15-30 Aug. 15-31	May 1-June 15 Sept. 1-Nov. 15	10 Spring 8 Fall
	28	April 15-30 Aug. 1-14	May 1-June 15 Aug. 15-Oct. 31	4 Spring 4 Fall
	31	April 15-30 Aug. 1-14	May 1-June 15 Aug. 15-Oct. 31	2 Spring 2 Fall
Jackson (101)	18, 20, 21 22, 24, 29	April 15-30 Aug. 15-31	May 1-June 15 Sept. 1-Oct. 31	13 Spring 20 Fall
Absaroka (201)	23	April 15-30 Aug. 1-14	May 1-June 15 Aug. 15-Oct. 31	8 Spring* 12 Fall*
	25, 26, 27	April 15-30 Aug. 15-31	May 1-June 15 Sept. 1- Oct. 31	
	32	April 15-30	May 1 – June 15 Aug. 1 – Oct. 31	Unlimited
Statewide	35		April 15-June 15 August 1-Oct. 31	Unlimited

*Annual female mortality limit applies to areas 23, 25, 26, and 27 in combination.