

Unit(s): 1

Species: Mountain Lion

Year: 2016/17

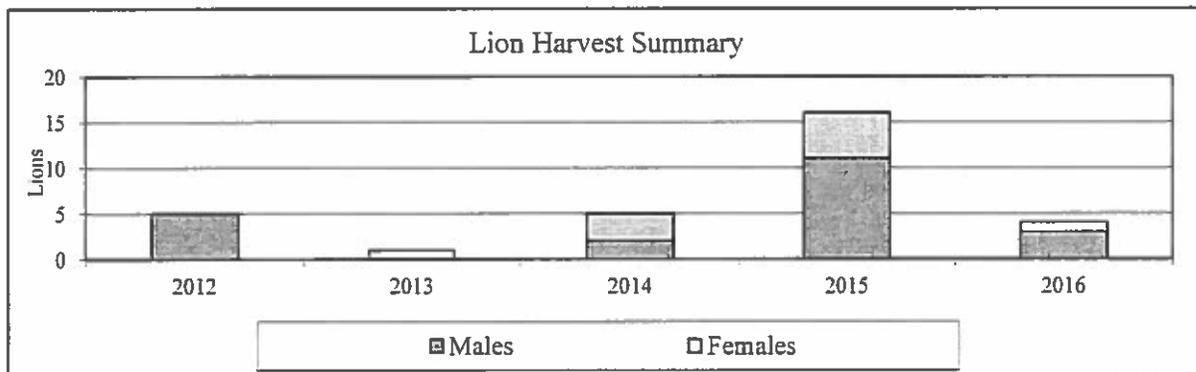
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	5	0	5	0	0%	NO
2013	0	1	1	1	100%	YES
2014	2	3	5	0	0%	NO
2015	11	5	16	0	0%	NO
2016	3	1	4			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Unit 1 - Unitwide	None	None

Submitted by: J. Capps
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____

Management Notes:

It is recommended to maintain the standard hunt season structure for mountain lion without a female harvest limit in GMU 1.

The 2-year mean of adult females harvested is not greater than 35%. There was a higher than average harvest of lions in 2015 (16). This has dropped to the normal level at (4) in 2016. We will monitor total harvest and female percentage of harvest to re-evaluate for the next recommendation cycle.

Unit(s): 2ABC

Species: Mountain Lion

Year: 2017/18

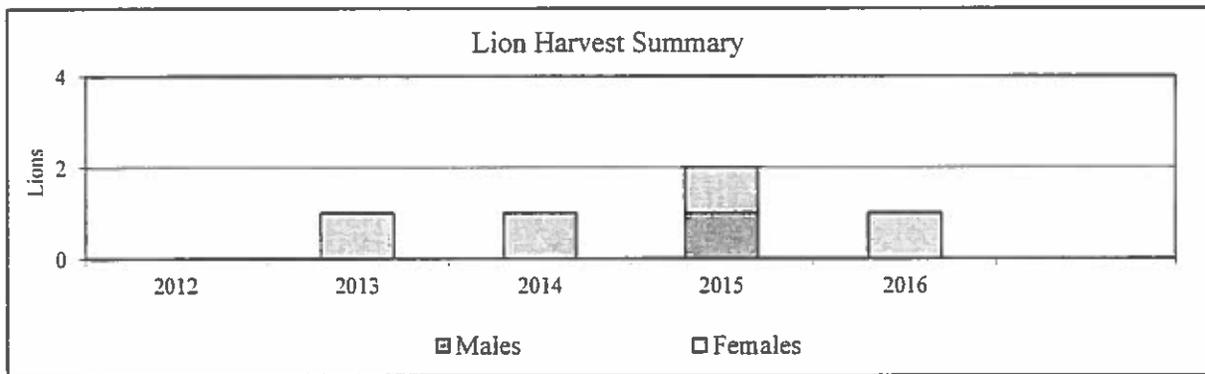
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012			0		#DIV/0!	#DIV/0!
2013		1	1		0%	NO
2014		1	1		0%	NO
2015	1	1	2		0%	NO
2016		1	1			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017-June 30, 2018	Unit 2ABC, unit wide	None	None

Submitted by: Joel Weiss
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____

Unit(s): 2ABC

Species: Mountain Lion

Year: 2017/18

Maintain current hunt structure of July 1, 2017 to June 30, 2018 season dates with bag limit of one mountain lion per year for the entire unit.

The current hunt structure in GMU 2ABC is an open season from July 1, 2017 through June 30, 2018 with a bag limit of one lion per year. This season and bag limit is consistent with most of the state.

Unit(s): 3A, 3B, 3C

Species: Mountain Lion

Year: 2016/2017

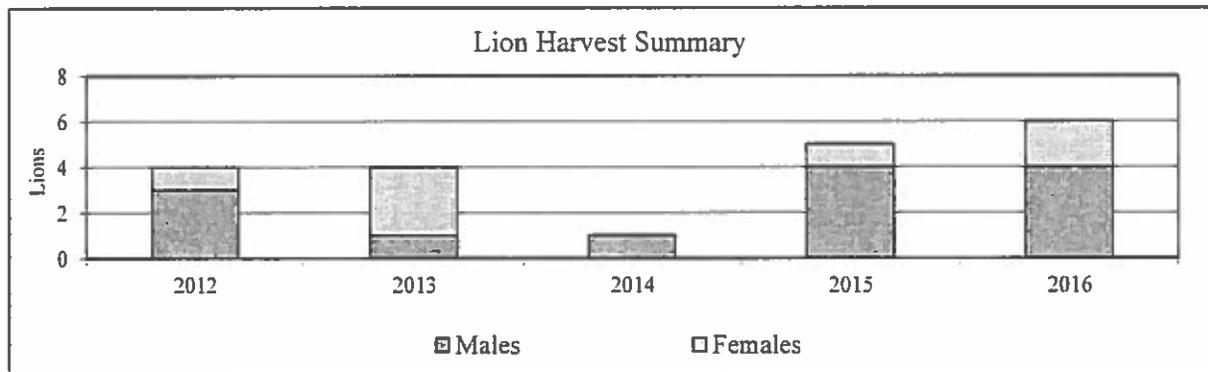
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	3	1	4	1	25%	NO
2013	1	3	4	2	50%	YES
2014	1	0	1	0	0%	NO
2015	4	1	5	0	0%	NO
2016	4	2	6			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Unit 3A, 3B, 3C - Unit-wide	None	None

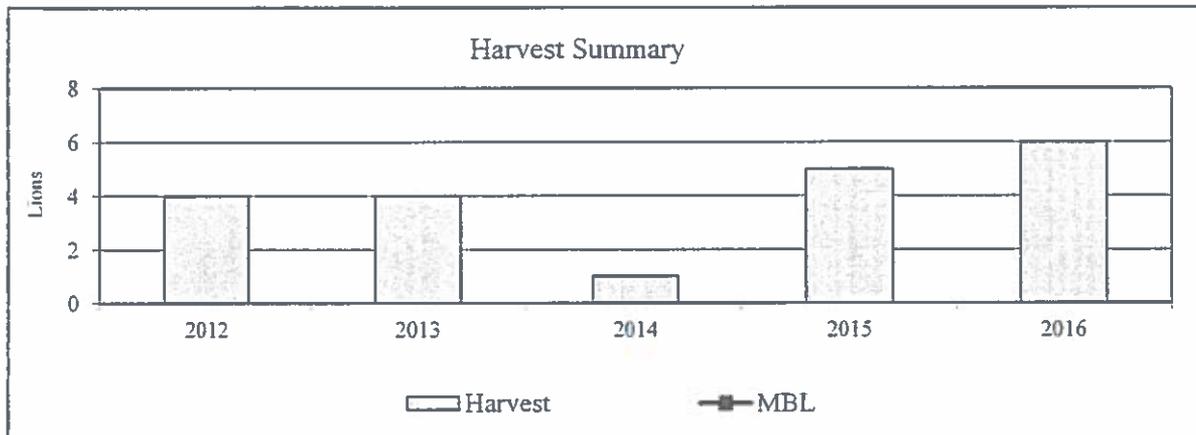
Submitted by: Eric Podoll
Wildlife Manager(s)

Amendments & Notes:

Reviewed by Bob Birkeland 2-7-17.

Game Branch Approval: _____

Date: _____



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

No changes recommended for lion management in Units 3A, 3B and 3C.

In 2016, hunters harvested six lions. Four lions were harvested in Game Management Unit 3B; three males and one female. Three lions were harvested with the use of dogs. Three were harvested in the first quarter and one was harvested in the last quarter. Two lions were harvested in Game Management Unit 3C; one male and one female. One lion was harvested with the use of dogs. One lion was harvested in the second quarter and one was harvested in the last quarter.

In 2015, five lions were killed in GMU 3C. Four were males and one was a female. All five lions were harvested with the use of dogs. Two were harvested in the first quarter of the year and three were harvested in the fourth quarter.

Unit(s): 4A/B

Species: Mountain Lion

Year: 2016/17

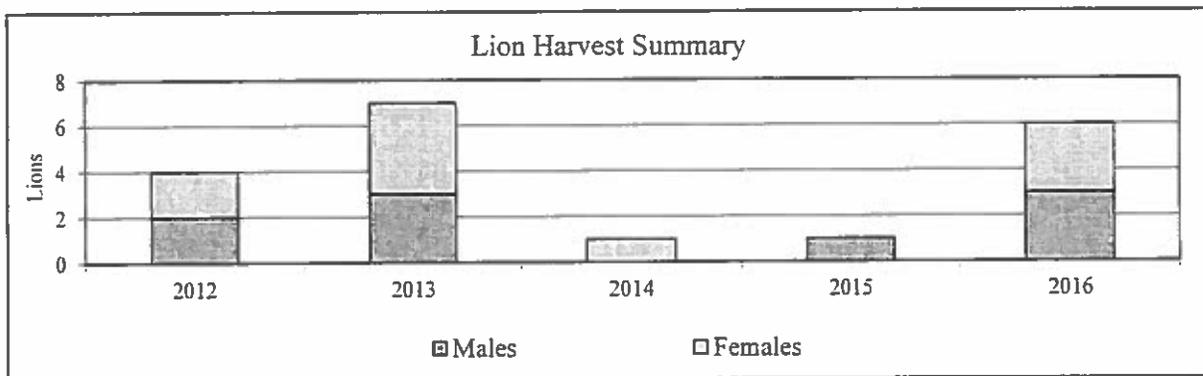
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	2	2	4	0	0%	NO
2013	3	4	7	1	14%	NO
2014	0	1	1		0%	NO
2015	1	0	1		0%	NO
2016	3	3	6			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Units 4A & 4B	None	None

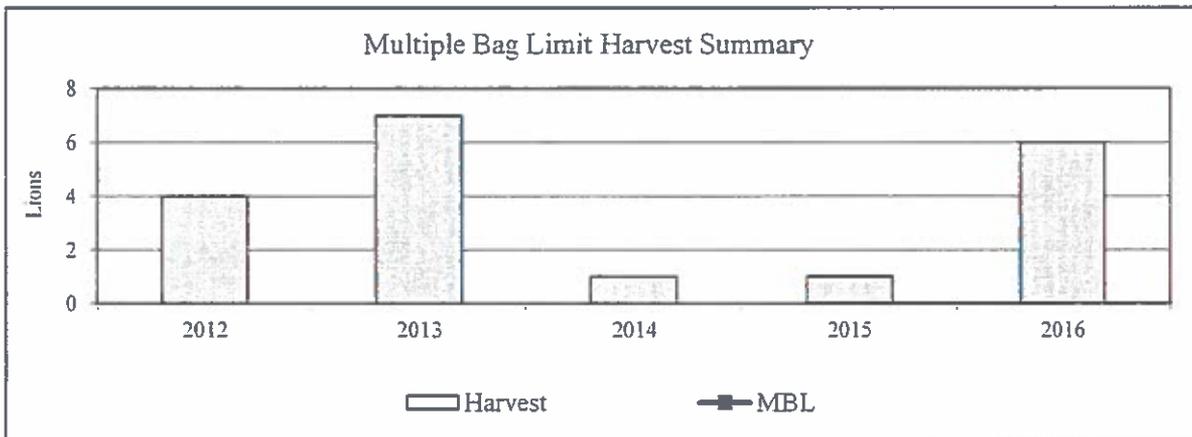
Submitted by: Ken Clay & Evan Lautzenheiser
Wildlife Manager(s)

Amendments & Notes:

Reviewed by B. Birkeland 2-18-14

Game Branch Approval: _____

Date: _____



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

We recommend no change for lion management in Units 4A and 4B.

We combined Units 4A and 4B for Lion Management in 2010.

Age Data: 2016 - 3 males and 3 females; no age data
 2015 - 1 male (no age data)
 2014 - 1 female (no age data)
 2013 - 1 female (7 years old) and 3 females (< than 3); and 3 males
 2012 - 1 female (< than 3) and 1 unknown
 2011 - 3 females (all 2 years old)
 2010 - 1 Female (1 year old): 4B
 2009 - 1 Male (4 years old): 4B

Unit(s): 27 Species: Mountain Lion

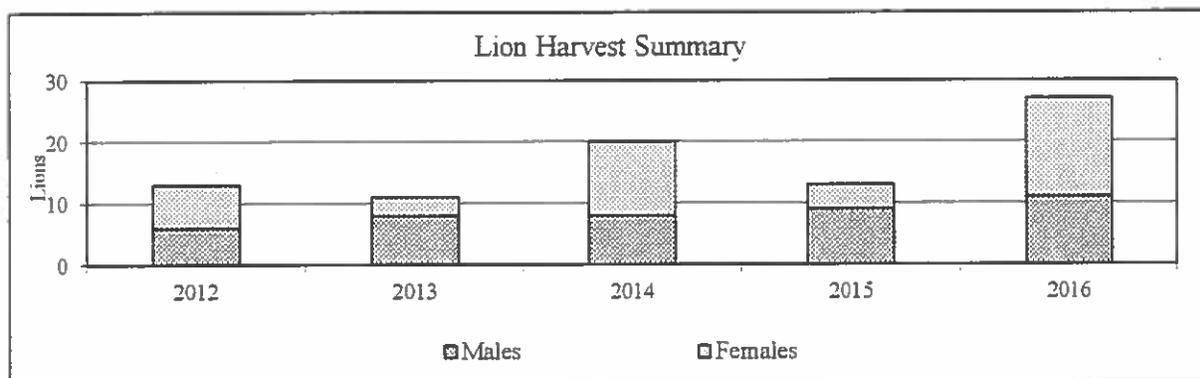
Year: 2016/17

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	6	7	13	2	15%	NO
2013	8	3	11	0	0%	NO
2014	8	12	20	5	25%	NO
2015	9	4	13	2	15%	NO
2016	11	16	27			
2-Year Mean					21%	NO

Management Considerations:

*Continue Single Unit Management
*No Female Harvest Limit Indicated



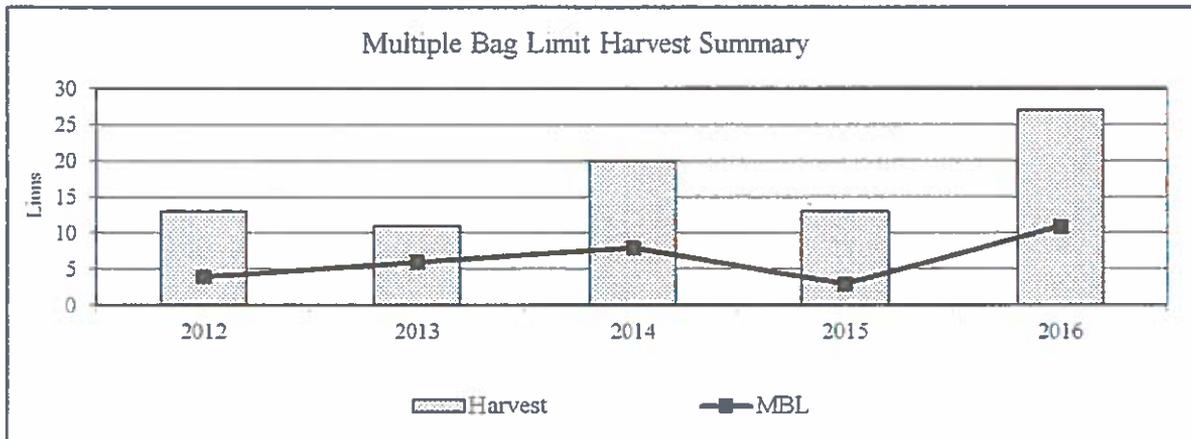
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 -June 30, 2018	Unit 27, except multiple bag limit areas	None	None
Multiple Bag Limit (MBL)	July 1, 2017 -June 30, 2018	Upper Blue River Hunt Area in Unit 27	8	None
Multiple Bag Limit (MBL)	July 1, 2017 -June 30, 2018	Lower Blue River Hunt Area in Unit 27	10	None

Submitted by: H.S. Najar, A. Hartzell
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



Significant Management Issues, Opportunities or Challenges:

*2016 was the first year that a MBL harvest limit was reached, with 8 lions being killed in the Upper Blue River MBL area.

Regional Notes:

Recommendation : **Maintain** the standard year round season throughout Unit 27.

Maintain the Multiple Bag Limit hunt area in the Lower Blue River

Hunt Area

Maintain the Multiple Bag Limit hunt area in the Upper Blue

River Hunt Area in Unit 27

The current hunt structure in GMU 27 is a recommended open season from July 1, 2017 through June 30th of 2018, with a bag limit of one lion per year. This season and bag limit is consistent with most of the state. Additionally there are currently two multiple bag limit areas in the Upper Blue River and Lower Blue River Hunt areas of Unit 27. These two areas allow for multiple bag limit lion hunting, addressing population needs of bighorn sheep.

It is recommended to **maintain the "Lower Blue River Hunt Area in Unit 27" as is, with a MBL target of 10 animals.** This area was expanded when the Lower Blue River Hunt Area was established for the sheep hunt. With the data available it appears that only three lions were killed in this area in 2016. The Area boundary and description for this hunt should remain unchanged.

The recommended triggers to initiate and/or stop the Lower Blue River multiple bag limit hunts are as follows:

Initiate and/or continue the multiple bag hunt as long as the estimated sheep population is below 100 or there are two or more consecutive years with lamb recruitment below 35% at time of survey in the October/November survey period. This hunt will cease when the estimated sheep population is above 100 and the last two years of survey data indicates lamb recruitment is above 35%.

The Lower Blue River area did have a survey in 2016 and there were only 13 bighorn seen. Therefore the triggers to adjust this hunt have not been met. The three year average for bighorn in this area give a population estimate of around 20 total sheep, and only two lambs

Unit(s): 27Species: Mountain LionYear: 2016/17

It is recommended to **maintain the "Upper Blue River Hunt Area in Unit 27" as is with a MBL target of 8 animals**. With low lamb:ewe and yearling:ewe ratios it is hoped that maintaining this MBL area will help the sheep population grow. In 2014 there were six lions killed within this MBL area, with 2 more being harvested in 2015. In 2016 there were 8 lions reported harvested in the MBL area- the first time we have reached the target harvest. The Area boundary and description for this hunt should remain unchanged.

The recommended triggers to initiate and/or stop the Upper Blue River multiple bag limit hunts are as follows:

Initiate and/or continue the multiple bag hunt as long as the estimated sheep population is below 225 or there are two or more consecutive years with lamb recruitment below 35% at time of survey in the October/November survey period. This hunt will cease when the estimated sheep population is above 225 **and** the last two years of survey data indicates lamb recruitment is above 35%.

2016 surveys within the Upper Blue River MBL area resulted in a Lamb:Ewe ratio of 28:100 and an overall population estimate of approximately 184 animals. With the triggers to stop the MBL hunt not being met we will continue to maintain the MBL hunt in the Upper Blue River area.

Multiple Bag Limit areas were established to allow for increased lion hunting opportunity and to assist in achieving population objectives for another species. In the case of the Upper and Lower Blue River MBL areas we are looking to assist sheep populations expand toward their potential. Current surveys in the Upper Blue River Hunt Area indicate an overall healthy population but low lamb and yearling to ewe ratios. Surveys were conducted in the Lower Blue in 2016. Those surveys however revealed very few ewes(2) and lambs.(2). These MBL areas will be maintained until such time as the numbers and age structure indicate a healthy sheep population in either the Upper and/or Lower Blue River Hunt Areas.

In addition to monitoring the sheep populations, managers will also look at the age dynamics of harvested lions to ensure that we are not having a negative impact on the lion population. Current guidelines suggest that adult (≥ 3 years old) females should comprise $< 35\%$ of the overall harvest. The most recent two year mean indicates that 21% of the harvest is composed of adult females. This percentage may change once tooth age data is available for this past year, due to the high number of females(16) that were reported in the harvest. Six of the females were reported from the MBL areas, with the remainder (10) being taken in the rest of Unit 27.

Unit(s): 27

Species: Mountain Lion

Year: 2016/17

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Unit(s): Region 2

Species: Mountain Lion

Year: 2017/18

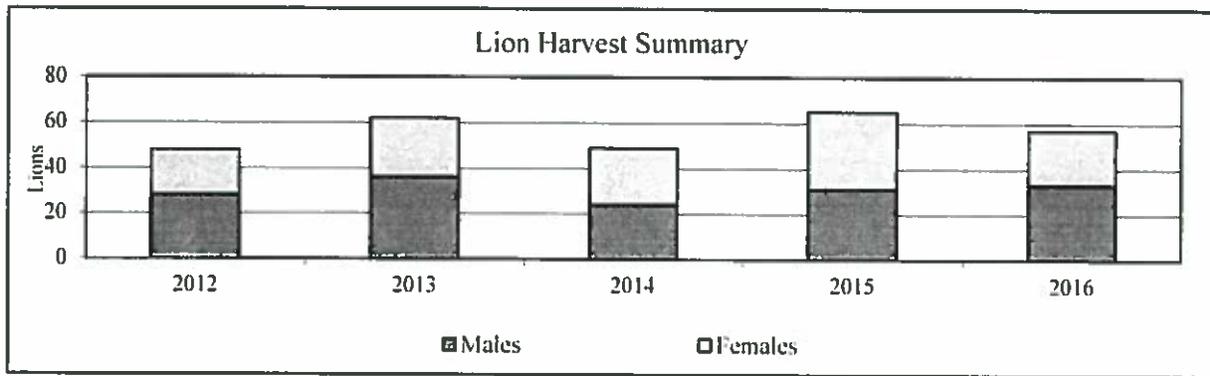
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	28	20	48	5	10%	NO
2013	36	26	62	11	18%	NO
2014	24	25	49	7	14%	NO
2015	31	34	65	14	22%	NO
2016	33	24	57			
2-Year Mean					18%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	Jul 1, 2017 - Jun 30, 2018	Region 2	None	None

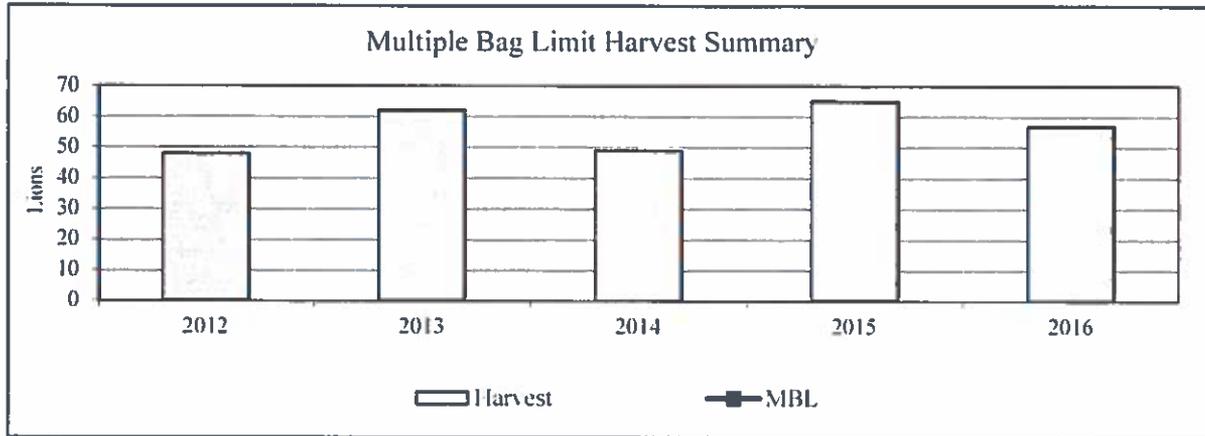
Submitted by: Tom McCall
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

AM

Date: 3/20/17



Significant Management Issues, Opportunities or Challenges:

*list items of management significance

*

*

Regional Notes:

The total harvest for 2016 in Region 2 was 57, comprised of 33 males and 24 females. This harvest is comparable to the 3-year average harvest of 57. The harvest of 24 females in 2016 is slightly lower than the 3-year average harvest of 28. From 2012 to 2015, adult (≥ 3 year old) female harvest was $< 35\%$ of the total take (range 10-22%). The lion harvest in Region over the last 5 years appears sustainable.

Unit(s): 13B

Species: Mountain Lion

Year: 2017/18

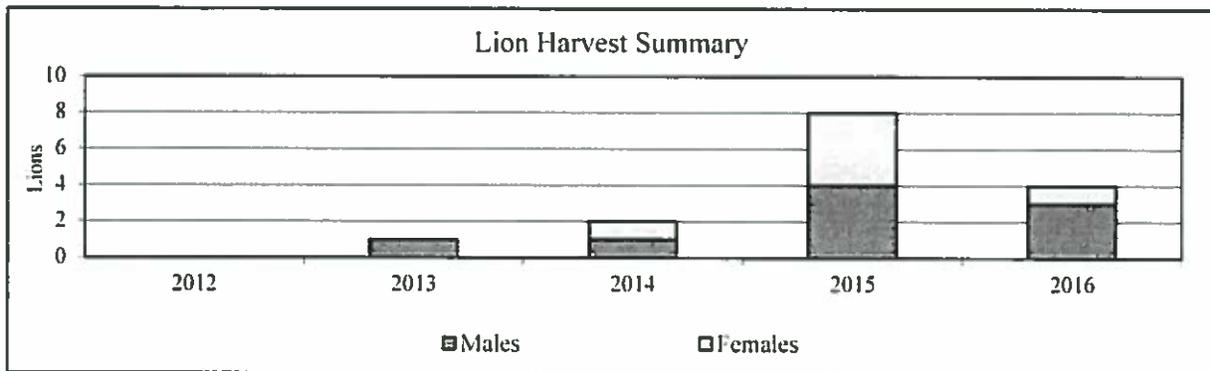
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	0	0	0	0	#DIV/0!	#DIV/0!
2013	1	0	1	0	0%	NO
2014	1	1	2	0	0%	NO
2015	4	4	8	0	0%	NO
2016	3	1	4			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	13B	None	None

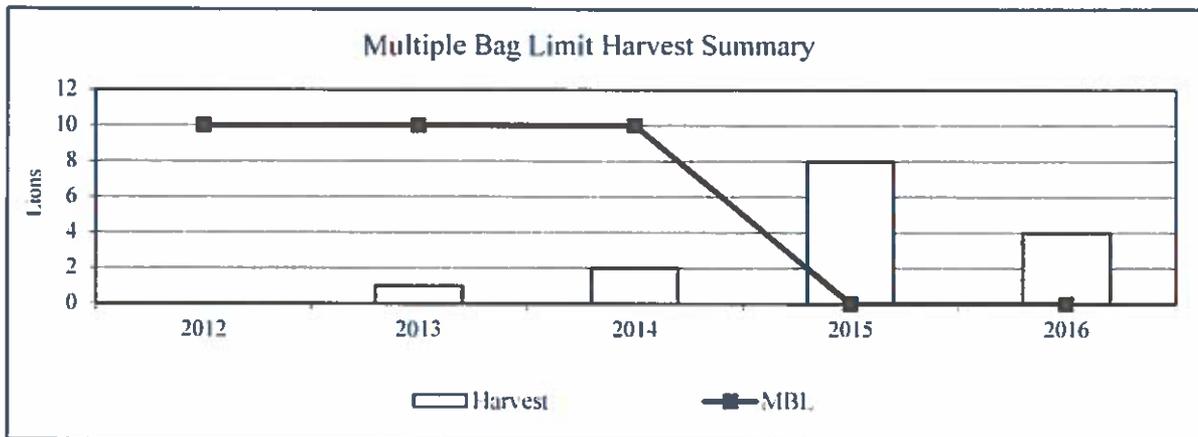
Submitted by: Tim Shurtliff
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

ASW

Date: 3/20/17



Significant Management Issues, Opportunities or Challenges:

Because of lack of participation and harvest in the 13BS, the multiple bag limit area was removed and combined with the 13B standard hunt structure in 2015. Also removed was the daylong season within 13BS. With the decrease fees in non-resident license and tags we have seen an increase in mountain lion harvest within the unit. This incentive has increased mountain lion hunting pressure from Nevada and Utah non-residents hunters. By harvesting these lions, this should help alleviate the predation on both deer and big horn sheep.

The struggle with 13B is the amount of area the unit has. Much of the unit is not accessible when there is significant amount of snow. This limits the ability of mountain lion hunters from hunting the higher deer density areas which in turn should contain a higher probability of finding a lion.

All of the mountain lions that the WM has checked out for the AZ strip have been healthy mountain lions. The WM believes that there is substantial food source for these lions with the increasing deer population.

In 2016 GMU 13B received a couple of different snow storms allowing mountain lion hunters to track and harvest lions. With four 13B mountain lion harvests in 2016, we are seeing that all of the harvests are coming from high deer density areas and not from the sheep areas. The WM has talked to some of the lion hunters and they have hunted some of the northern sheep country without seeing a track (most of the sheep country does not get snow). The WM believes there are lions within these areas but the populations of lions are going to be greater where there are higher deer populations.

Recommendation and Discussion

The 13BS mountain lion population has historically relied on mule deer as a primary prey base. In 13B, the migratory nature of the mule deer population brings mountain lions into the habitat of bighorn sheep during the winter months and resident mule deer encourage mountain lions to remain in proximity to the bighorn sheep. For many years, the 13B mule deer population was struggling with growth and the logical tenet was that mountain lions would rely on alternative prey.

The mule deer population, the primary prey base of lions throughout 13B has increased in recent years. The fawn:doe ratio recorded during 2016 winter mule deer Ground surveys was 50:100. The 3 year average is 58:100. In addition, survey numbers have increased over the past 10 years in 13B and the population is slowly growing. With the increase deer numbers within the unit the WM hopes this will alleviate any predation pressure on big horn sheep.

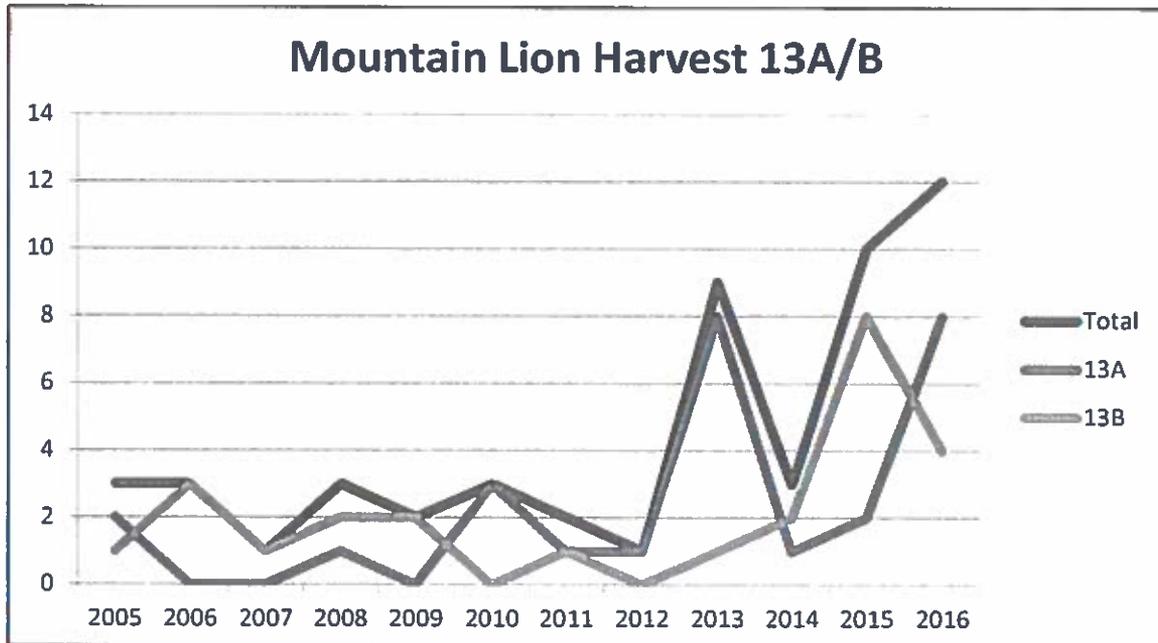
Lion sightings and track sign are continually documented throughout the unit. In 2009, an archery deer hunter reported 4 mountain lions together on Black Rock Mountain. In 2010, several photographs at different time intervals showed 4 mountain lions together on Whitmore Point. 2 separate lions have been documented through track sign in the Mt. Dellenbaugh area for several years. In January 2012 the wildlife manager observed a mountain lion during deer surveys on the Grey Points. In 2013 and 2014 guides and hunters continue to get plenty of photographs of lions on their trail cameras and continue to voice their concerns to the wildlife manager. In 2015 guides told the wildlife manager that almost everyone of their cameras have has a picture of a lion. during the archery hunt, in this year a lion came into one of the waters that a hunter was sitting. The hunter had a mountain lion tag and shot it with his arrow. While tracking the lion the hunter found a dead buck that scored around 210 inches. The hunter never caught up to the lion and they think it is because of shot placement of the arrow. In 2016 several guides have talked to the WM about high lion numbers within the unit. On the 13A deer helicopter survey, the survey team spotted a lion near Mount Trumbull.

Female harvest is not a concern in this unit. The sample size to derive this estimate is based on very low harvest numbers for a very large unit. In addition, as indicated, sightings have been documented, and the primary prey base population is increasing; suggesting again that the multiple bag limit hunt was not impacting the mountain lion population.

With the new license structure it has decrease the price for a non-resident to hunt mountain lions in AZ. Most of the harvests that come out of 13A and 13B come from non-residents. This has had a significanton impact on the number of lions that get harvested in both units.

Recommendation

With the lower license and tag fees for non-residents we have found a high participation for mountain lion harvest within the unit. The mountain lion population has been mirroring the deer population growth. With the snow from the last two years, this has made it possible to harvest some of these lions. The WM believes the mountain lion population is increasing and stable. The WM recommends keeping the year long hunt in 13B with no mountain lion harvest limit.



Unit(s): Regionwide

Species: Mountain Lion

Year: 2016/17

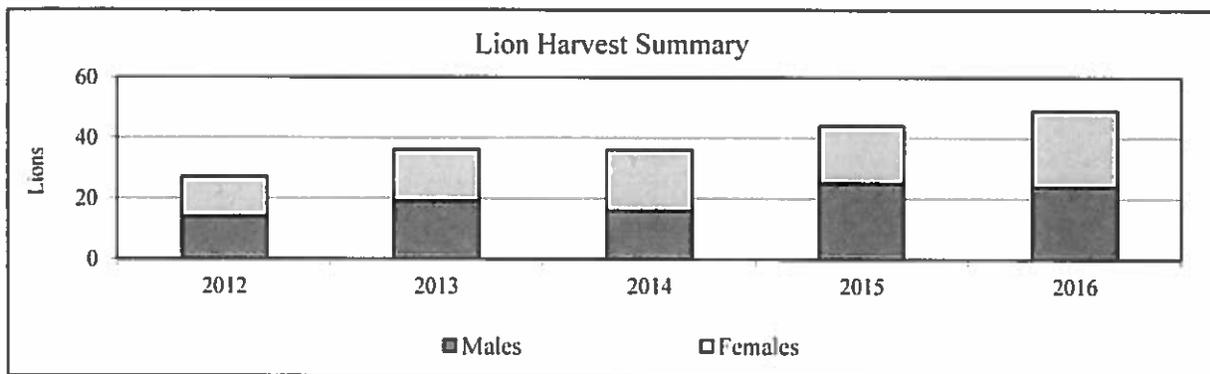
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	14	13	27	5	19%	NO
2013	19	17	36	4	11%	NO
2014	16	20	36	10	28%	NO
2015	25	19	44	7	16%	NO
2016	24	25	49			
2-Year Mean					21%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Regionwide		

Submitted by: E. Butler
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____

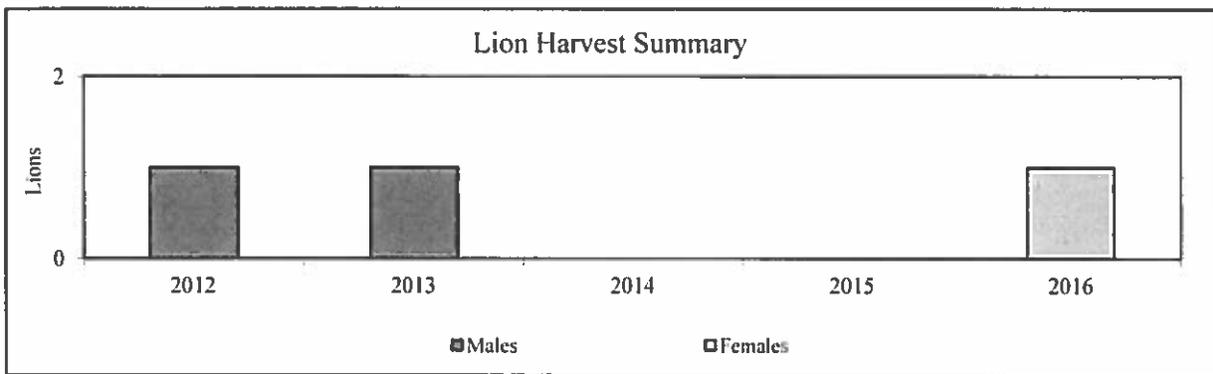
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	1	0	1	0	0%	NO
2013	1	0	1	0	0%	NO
2014	0	0	0	0	#DIV/0!	#DIV/0!
2015	0	0	0	0	#DIV/0!	#DIV/0!
2016	0	1	1			
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

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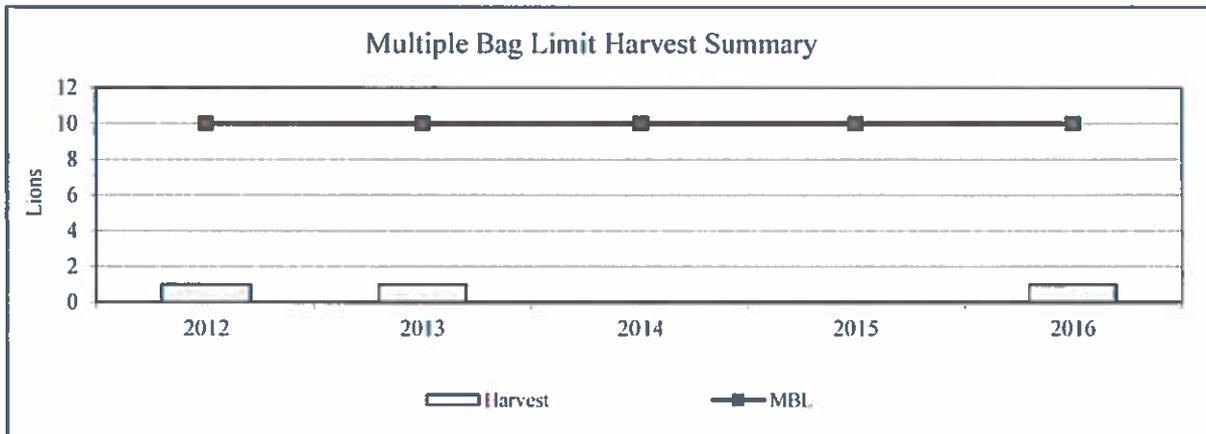
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Multiple Bag Limit (MBL)	July 1, 2017 - June 30, 2018	15B West, 15C, 15D	10	

Submitted by: D. Klaas
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



Multiple Bag Limit Triggers are as follows:

- * Sheep/hour observed in Unit 15CS reaches the 20-year average of 18.1 sheep/hr. In 2013 sheep/hour observed was 9.1, down from 12.1 in 2012. Sheep were not surveyed in 15CS in 2014. Sheep were surveyed in 15CS in 2015. The sheep/hour observed was 2.2.
- * Total sheep observed in Unit 15CS reaches the 20-year average of >108 sheep. In 2013 total sheep observed was 52, down from 74 in 2012. Sheep were not surveyed in 15CS in 2014. Sheep were surveyed in 15CS in 2015. Total sheep observed was 12.

In the 2004-2005 hunt season, Units 15BW, 15C and 15D were added to the multiple bag limit hunt area, as outlined in the Black Mountains Adaptive Predation Management Plan (updated 2010). A harvest objective of 10 lions was established. In the 2014-2015 hunt season, Units 15BW, 15C, and 15D were designated as minimal occurrence zones with liberalized mountain lion harvest strategies. The region recommends that the hunt area continue to be managed as a multiple bag limit area, in accordance with the Predation Management Plan, and not offer the liberal season structure of 3 mountain lions/hunter/day bag limit. The season should be yearlong with day-long hours.

No lions were harvested in 2012; however, one roadkill male was found, presumably hit by a vehicle crossing Highway 68 near Union Pass. In 2013 one male lion was reported harvested in Unit 15BW. No lions were reported harvested from the hunt area in 2014. No lions were reported harvested from the hunt area in 2015.

The Wildlife Manager saw a mountain lion in Unit 15CS on both survey flights in 2012 and 2013, and lion predation was documented in Unit 15BW by a regional wildlife technician in 2013. Three mountain lions were seen during survey flights in Unit 15CS and Unit 15CN in 2015. Lions may or may not be a contributing factor causing recent declines in sheep populations in Units 15BW, 15CS, and 15D.

Unit(s): 16AS/18BS

Species: Mountain Lion

Year: 2016/17

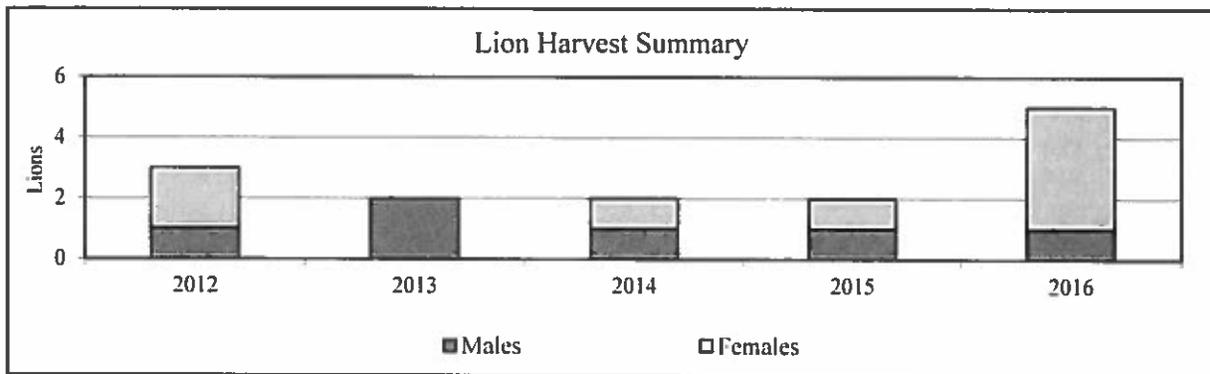
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	1	2	3	0	0%	NO
2013	2	0	2	0	0%	NO
2014	1	1	2	0	0%	NO
2015	1	1	2	0	0%	NO
2016	1	4	5			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



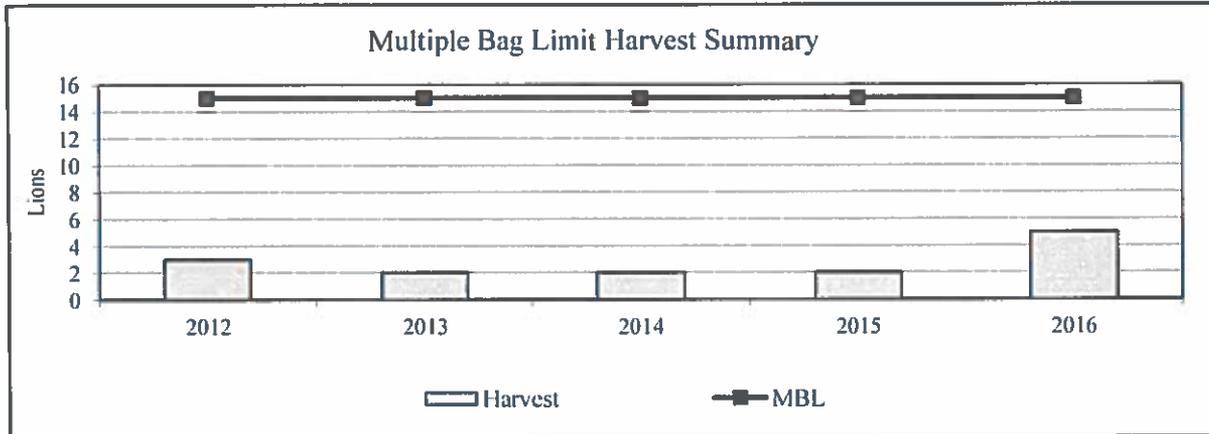
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Multiple Bag Limit (MBL)	July 1, 2017 - June 30, 2018	Units 16AS/18BS	15	

Submitted by: D. Groves
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



Hunt Recommendation:

A multiple bag limit is recommended for Unit 16AS/18B to support an introduced bighorn sheep population in Unit 18BS and an augmented population in Unit 16A. The MBL has been in place since 2002; during which the harvest has averaged 2.6 lions per year. If we assume that 10% of the lion population is harvested each year, which is supported, that means there are approximately 26 lions in this hunt area. At this harvest rate, if we were attempting to remove 75% of the lions, the limit would be placed at 20 lions, which is supported by lion track surveys which indicated a high density of lions in the area. The MBL will remain at 15 lions for 2017-2018.

Multiple Bag Limit Trigger:

The MBL will be in place until the region determines that the bighorn sheep populations in Units 16A South and 18B South are self-sustaining.

Population Information:

Approximately 160 sheep have been transplanted into this area between 2006-2014 and predation rates have been as high as 66% after a release event. Lion predation continues to occur on sheep being monitored in Unit 16A South.

Hunt Area Boundary:

Those portions of Unit 16A and Unit 18B beginning in Wikieup at Chicken Springs Road and U.S. Hwy 93; north on U.S. Hwy 93 for 2.2 miles to Pump Station Road; east on Pump Station Road for 0.9 miles to Back Road; north on Back Road for 1.8 miles to Boner Canyon Road (unmarked); northeast on Boner Canyon Road to Bogles Ranch Road near SV Ranch headquarters (stay right at each road fork); south on Bogles Ranch Road for 3.5 miles to Black Canyon drainage; northeast in Black Canyon drainage to Francis Creek; southeast along Francis Creek to Burro Creek; northeast along Burro Creek to Conger Creek; southeast along Conger Creek to Conger Springhead; south on access road to Bozarth Mesa Road; east on Bozarth Mesa Road to Camp Wood (Yolo) Road, the Unit 17B-18B boundary; southwest on Camp Wood Road to AZ Hwy 96 in Bagdad; southeast on AZ Hwy 96 to the Santa Maria River; southwest along the Santa Maria River to Alamo Lake; westerly along the north shore of Alamo Lake to Alamo Road; northwest on Alamo Road to Chicken Springs Road; northeast on Chicken Springs Road to U.S. Hwy 93.

Unit(s): 16A North

Species: Mountain Lion

Year: 2016/17

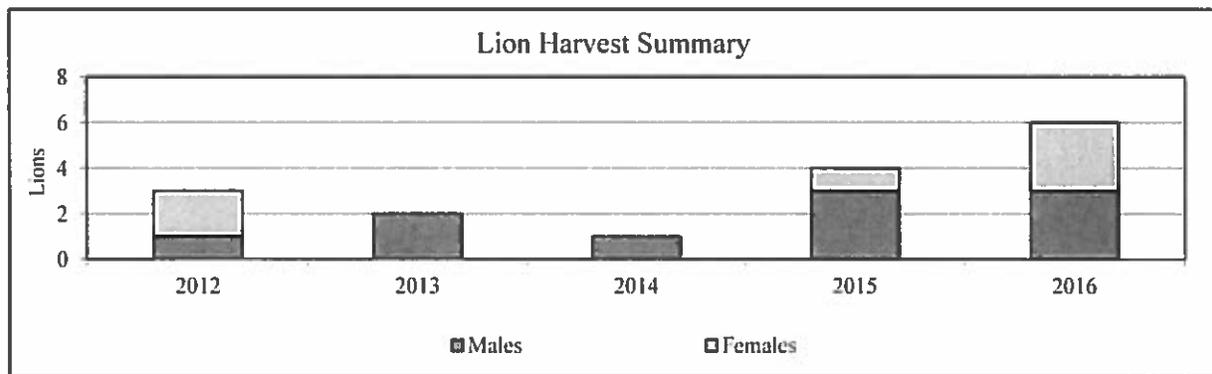
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	1	2	3	0	0%	NO
2013	2	0	2	0	0%	NO
2014	1	0	1	0	0%	NO
2015	3	1	4	0	0%	NO
2016	3	3	6			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

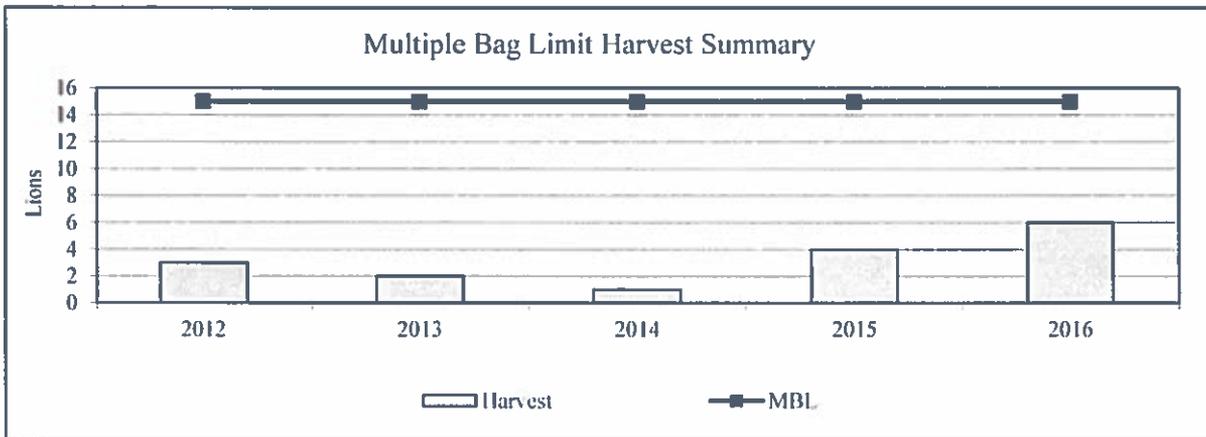
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Multiple Bag Limit (MBL)	July 1, 2017 - June 30, 2018	Unit 16A North	15	

Submitted by: C. Johnston
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____

Date: _____



Hunt Recommendation:

A multiple bag limit is recommended for Unit 16A North to assist a depressed mule deer population. Funds are being expended as part of the Wildlife Habitat Enhancement Initiative (WHEI) to increase the amount of open habitat through burning and thinning projects and to increase the reliable water distribution throughout the unit for mule deer. The region is pursuing avenues to increase predator control efforts. As part of this effort the region believes that a multiple bag limit for this area would decrease the number of mountain lions in Unit 16A North and enhance the ability the habitat improvement efforts in assisting the mule deer population to recover.

From 1985-2001 the average harvest of lions per year in Unit 16A is 3.6. In 2002, the MBL in Unit 16A South/18B South was initiated. From 2002-2014 the average number of lions harvested in Unit 16AN was 2.4 while the harvest in the whole unit averaged 3.2. If we assume that 10% of the lion population is harvested each year then the estimated population in Unit 16A would be between 32-36 lions, conservatively. To effectively reduce mountain lion populations, sustained harvest of >40% of a mountain lion population over several years may be required (Stoner et al. 2006). A MBL of 15 removes over 45% of the population in Unit 16AN. The region recommends the MBL be placed at 15 lions for 2017-2018.

Multiple Bag Limit Trigger:

The MBL will be in place for the duration of the WHEI projects, and continue for at least 3 years after or until the goals of the predation management plan have been met. Goals in the plan include a) an increase in fawn:doe ratio to at least 40, b) an increase buck:doe ratio at or above guidelines (20-30) and c) an increase in deer seen per hour to 16 deer/hour. The fawn to doe ratio this year was 45, with a 3-year average of 42. The buck:doe ratio for this year was 34. The deer seen per hour is down to 11.1 from 11.9 last year.

Hunt Area Boundary:

Those portions of Unit 16A beginning in Kingman at Exit 48 on I-40; south and west on i-40 to U.S. Hwy 95 (exit 9); southerly on U. S. Hwy 95 to the Bill Williams River; easterly along the Bill Williams River to Alamo Lake; easterly along the north shore of Alamo Lake to Alamo Road; northwest on Alamo Road to Chicken Springs Road; northeast on Chicken Springs Road to U.S. Hwy 93; north and west on U.S. Hwy 93 and I-40 to Kingman (exit 48).

Unit(s): 16B, 20C Species: Mountain Lion

Year: 2017/18

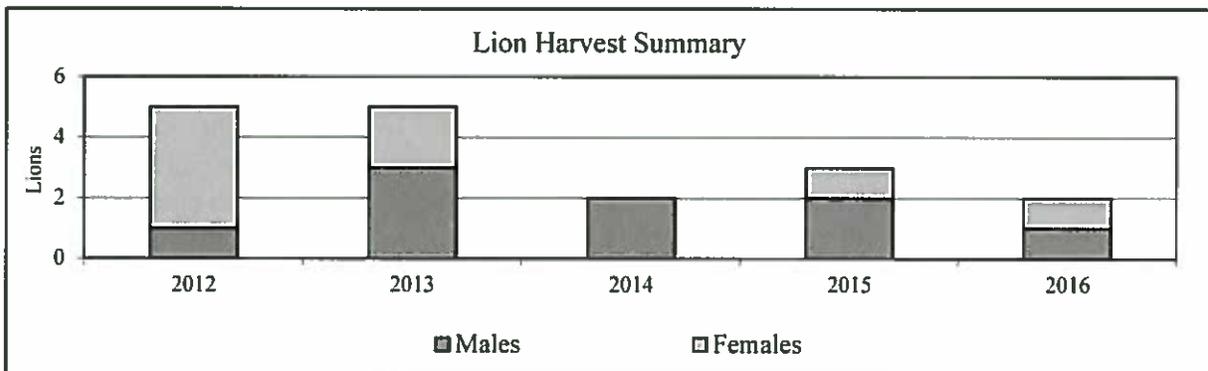
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	1	4	5	2	40%	YES
2013	3	2	5	1	20%	NO
2014	2	0	2	0	0%	NO
2015	2	1	3	1	33%	NO
2016	1	1	2			
2-Year Mean					20%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



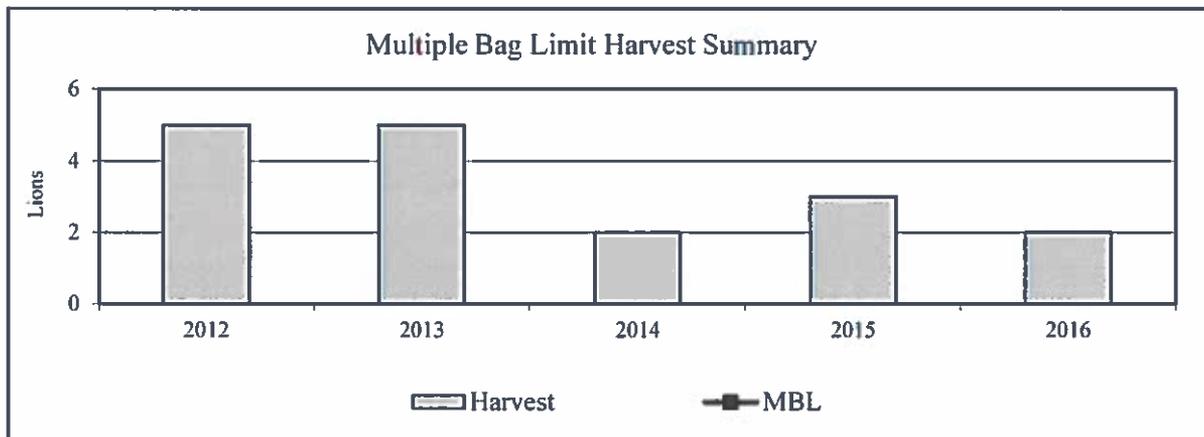
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017- June 30, 2018	GMU's 16B and 20C	None	None

Submitted by: M. Brown
 Terrestrial Wildlife Specialist, Region 4

Amendments & Notes:

Terrestrial Branch Approval: _____ Date: _____



Significant Management Issues, Opportunities or Challenges:

Two Game Management Units (GMU's) in Region 4 are currently managed under the Standard statewide bag limit of one mountain lion per calendar year, daylight shooting hours only. There are no records of sport harvest of lions in GMU 16B, and if lions occur in this Unit, they are very rare. Residents of Lake Havasu City occasionally report sighting lions; these reports are promptly investigated by the local Wildlife Manager, but to date, no definitive sign or verification of lion presence has been confirmed. GMU 20C likely has a healthy mountain lion population, although no formal surveys are conducted. One mountain lion was observed during a helicopter survey for deer and javelina in January of 2017. However, given past harvest data, abundant prey populations and relatively large blocks of unfragmented habitat, it is suspected that a relatively robust population exists. Total annual harvest for the past five years in this GMU has not exceeded five mountain lions.

In 2015, only two mountain lions were harvested, both in GMU 20C. One was a male and one was a female.

Recommendation and Justification:

We recommend no change to the hunt structure currently in place. The harvest prescription in GMU's 16B and 20C should remain at an annual bag limit of one, daylight shooting hours only.

Unit(s): 16B, 20C

Species: Mountain Lion

Year: 2017/18

Hunt Recommendation Submitted by:

Terrestrial Wildlife Specialist

Date

Sector Supervisor

Date

accepted modified

Terrestrial Wildlife Specialist

Date

accepted modified

Regional Supervisor

Date

accepted modified

Terrestrial Branch Chief

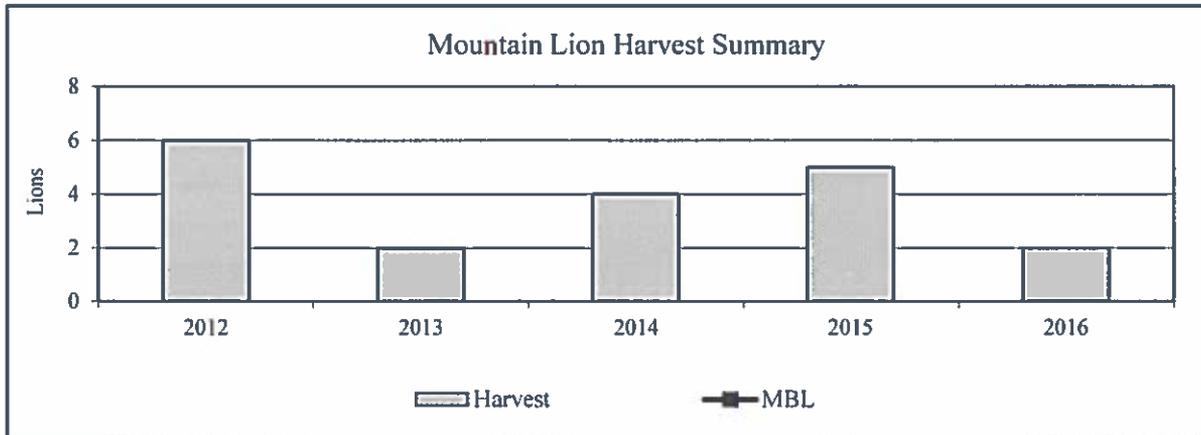
Date

accepted modified

Executive Staff

Date

accepted modified



Significant Management Issues, Opportunities or Challenges:

Sport mountain lion harvest is very minimal in most of the Game Management Units (GMU's) in Region 4. The hunt structure for most GMU's (39, 40A, 40B, 41, 42, 43A, 43B, 44A and 44B) in the Region is the liberal prescription of a *Bag Limit of 3 with Daylong Shooting Hours*. This hunt structure was first initiated on July 1, 2012. However, annual harvest has remained essentially the same, or even decreased, since the initiation of the more liberal hunt structure. Hunting lions in these GMU's is very unproductive, due to low lion densities, arid conditions, and challenging terrain and vegetation that makes the use of dogs very difficult. GMU's 45 and 46 are comprised of National Wildlife Refuges, which do not currently allow the hunting of mountain lions.

The Region currently has two adaptive predation management plans in place, the *Units 20C, 42, 44A and 44B Adaptive Lion Management Plan* and the *Kofa Mountains Complex Predation Management Plan*. These management plans were drafted and implemented to address the impacts that predation by mountain lions was having on both transplanted and important source populations of bighorn sheep within the Region. The Kofa Mountains complex is comprised primarily of GMU 45, which is not open to mountain lion hunting, but also includes relatively small portions of GMU's 44B South and 41 West.

Regional Notes:

Only two lions were harvested within this assemblage of GMU's in 2016, one from Unit 41 and one from Unit 42.

Recommendation and Justification:

We recommend no change to the *Bag Limit of 3 with Daylong Shooting Hours* hunt structure currently in place. Sport harvest of mountain lions likely has a negligible impact on the mountain lion population in these GMU's, due to extremely low harvest rates. No more than a single mountain lion was harvested in any GMU in 2016, and for the past five years, no more than two mountain lions have been taken from any single Unit.

Hunt Recommendation Submitted by:

Terrestrial Wildlife Specialist

Date

Sector Supervisor

Date

accepted modified

Terrestrial Wildlife Specialist

Date

accepted modified

Regional Supervisor

Date

accepted modified

Terrestrial Branch Chief

Date

accepted modified

Executive Staff

Date

accepted modified

Unit(s): 28 Species: Mountain Lion

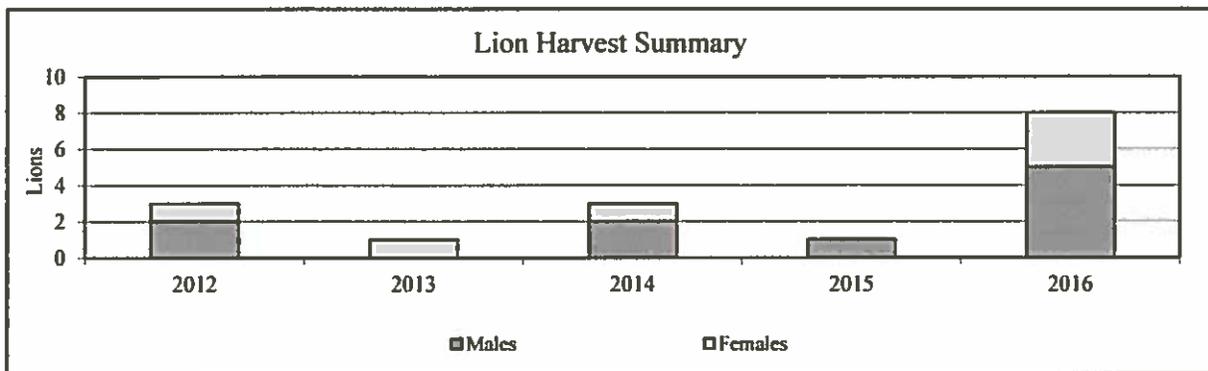
Year: 2016/17

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	2	1	3	0	0%	NO
2013	0	1	1	1	100%	YES
2014	2	1	3	0	0%	NO
2015	1	0	1	0	0%	NO
2016	5	3	8			
2-Year Mean					0%	NO

Management Considerations:

- *Continue Single Unit Management
- *No Female Harvest Limit Indicated



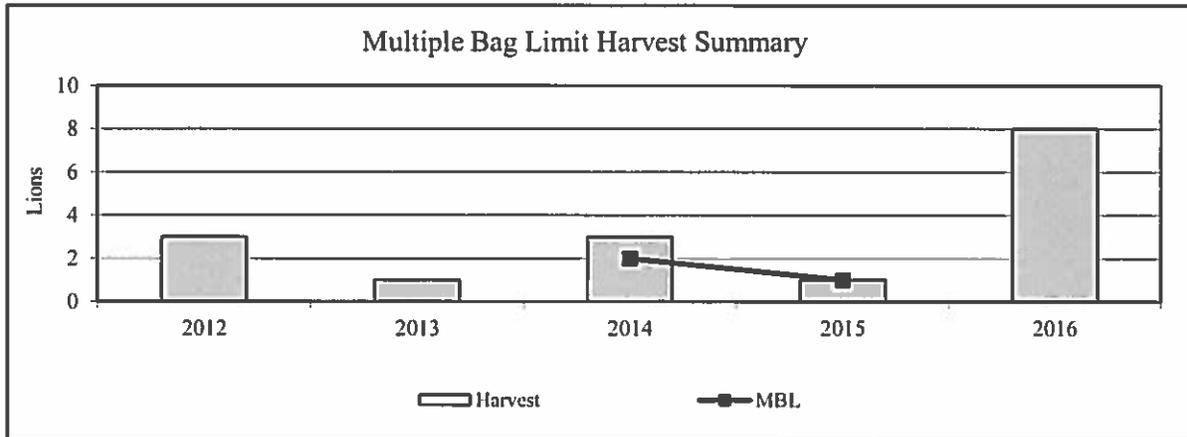
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	GMU 28	None	None
<i>Closing Multiple Bag Limit</i>				

Submitted by: Matt Peltó
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



Significant Management Issues, Opportunities or Challenges:

The MBL that has been in place in unit 28 the last several years was designed to be re-evaluated after the 2016 bighorn sheep survey. The following management objectives were established to be evaluated:

- 1) A measureable increase in observed total population numbers of Desert Bighorn Sheep, and/or
- 2) A measureable increase in observed lamb:ewe ratio, and/or
- 3) A measureable increase in lion removals occurring within Desert Bighorn Sheep occupied habitat.

If the above management objectives were not met after this MBL had been in place for a minimum of 3 years, then the MBL will be discontinued. The three management objectives are discussed below:

- 1) There has been a steady increase in the observed bighorn sheep observations over the last three surveys. In 2010 a total of 27 bighorn sheep were observed, in 2013 a total of 49 bighorn sheep were observed, and in 2016 a total of 69 bighorn sheep were observed.
- 2) Since 2010 the observed lamb:ewe ratio has decreased from 43 lambs:100 ewes in 2010, to 36 lambs:100 ewes and 22 lambs:100 ewes.
- 3) There has been no apparent increase of lion removal in the DBS occupied habitat.

Looking at the management objectives only one of the three has been met. The surveyed bighorn sheep population has increased over the last three surveys. Based on the management objectives and the low numbers of lion harvests in the MBL area, the recommendation is to discontinue the MBL and continue with the standard mountain lion hunt format only.

Unit(s): 28

Species: Mountain Lion

Year: 2016/17

Hunt Recommendation For (Unit/Species):

28/MTN LION
MATT PECTO

Hunt Recommendation Submitted by:

[Signature] 2/21/17

Wildlife Manager Date

[Signature] 2/22/17 accepted modified

Sector Supervisor Date

[Signature] 2/23/17 accepted modified

Game Specialist Date

[Signature] 2-25-17 accepted modified

Regional Supervisor Date

_____ accepted modified

Game Branch Chief Date

_____ accepted modified

Executive Staff Date

Unit(s): 31/32 Species: Mountain Lion

Year: 2016/17

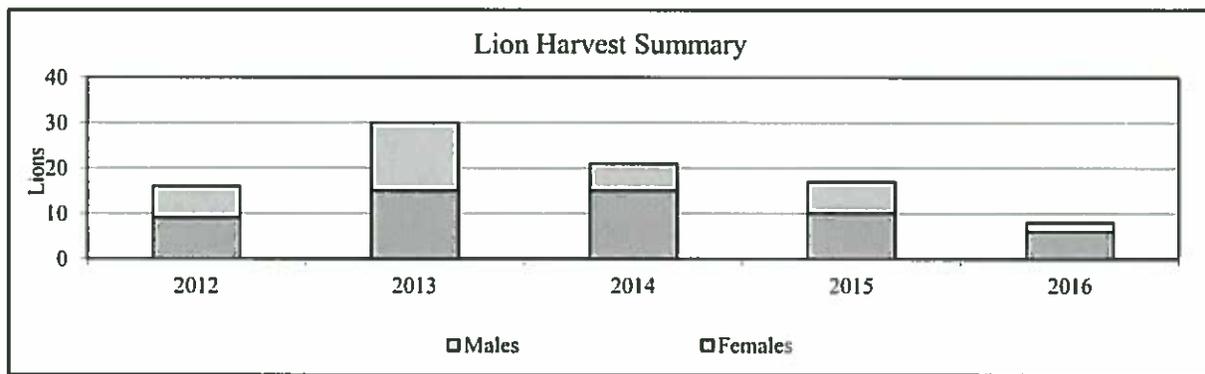
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	9	7	16	4	25%	NO
2013	15	15	30	7	23%	NO
2014	15	6	21	3	14%	NO
2015	10	7	17	3	18%	NO
2016	6	2	8			
2-Year Mean					16%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



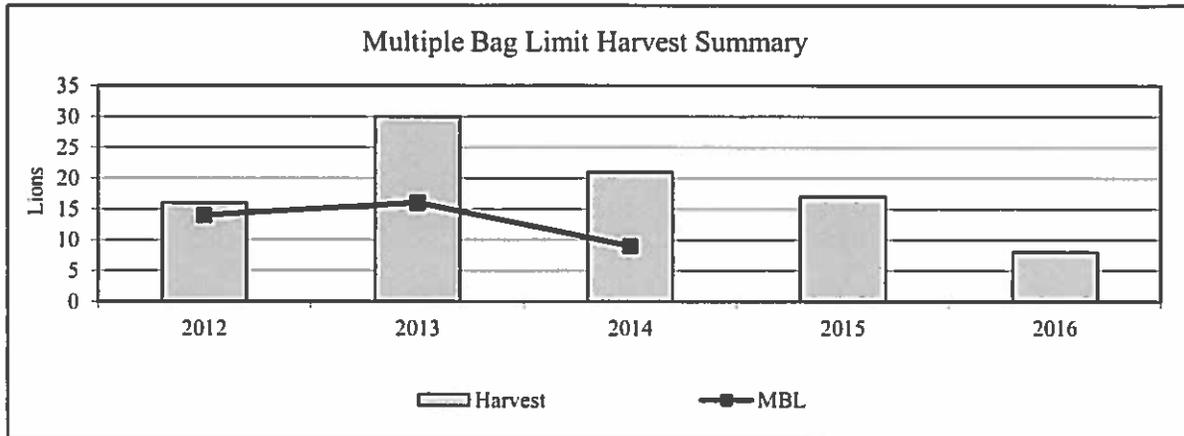
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	GMU 31 and 32	None	None

Submitted by: J. Bacorn
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



GMU 31-32 Mountain Lion-Significant Management Issues:

Mountain Lion Removals

There were 14 lions recorded as sport harvests in GMU 31-32 in 2016, less than the 5 and 10 year averages (Figure 1). Lions are also removed from GMU 31-32 under depredation laws authorized through ARS 17-302. From 2003-2007, 34% of the statewide depredation lions occurred in GMU 31-32 (Mountain Lion and Bear Conservation Strategies Report). In 2016, only 8 depredation lions were removed from GMU 31-32, also less than the 5-year and 10-year averages (Figure 1). A combined sport harvest and depredation of 22 lions were removed from GMU 31-32 in 2016. Note the sport harvest and depredation removal appear to have had an inverse relationship from 2006-2012 (Figure 2).

Mountain Lion Densities

Based upon the Department's 2002 Statewide Mountain Lion habitat assessment, GMU 31-32 has approximately 2745 square miles of lion habitat. Within that habitat there are low, medium and high lion densities associated with different habitat types. The estimated lion population for GMU 31-32 based upon the extremes of estimated density for lions ranges from 70-165 lions (average = 118).

Multiple Bag Limit Structures

Multiple bag limit (MBL) hunt structures for mountain lions were first established in AZ in 1999. As listed in the AGFD Hunt Guidelines the MBL structure "may be offered in hunt units or a portion of a hunt unit to increase lion hunting opportunity. These should be designed to assist in achieving population objectives for another wildlife species. When targets have been achieved for which multiple bag limits were established, the multiple bag limit hunt structure should be removed from that unit". The MBL is also listed as an alternative lion harvest structure "that may be used in those units where prey populations are below management objectives and mountain lion predation is implicated as a contributing factor or where a translocation is being limited by mountain lion predation".

From 2011 through 2014, a MBL was established in GMU 31-32 in an attempt to improve the desert bighorn sheep (DBS) population. During that time frame, 52 lions were removed.

Recommendation

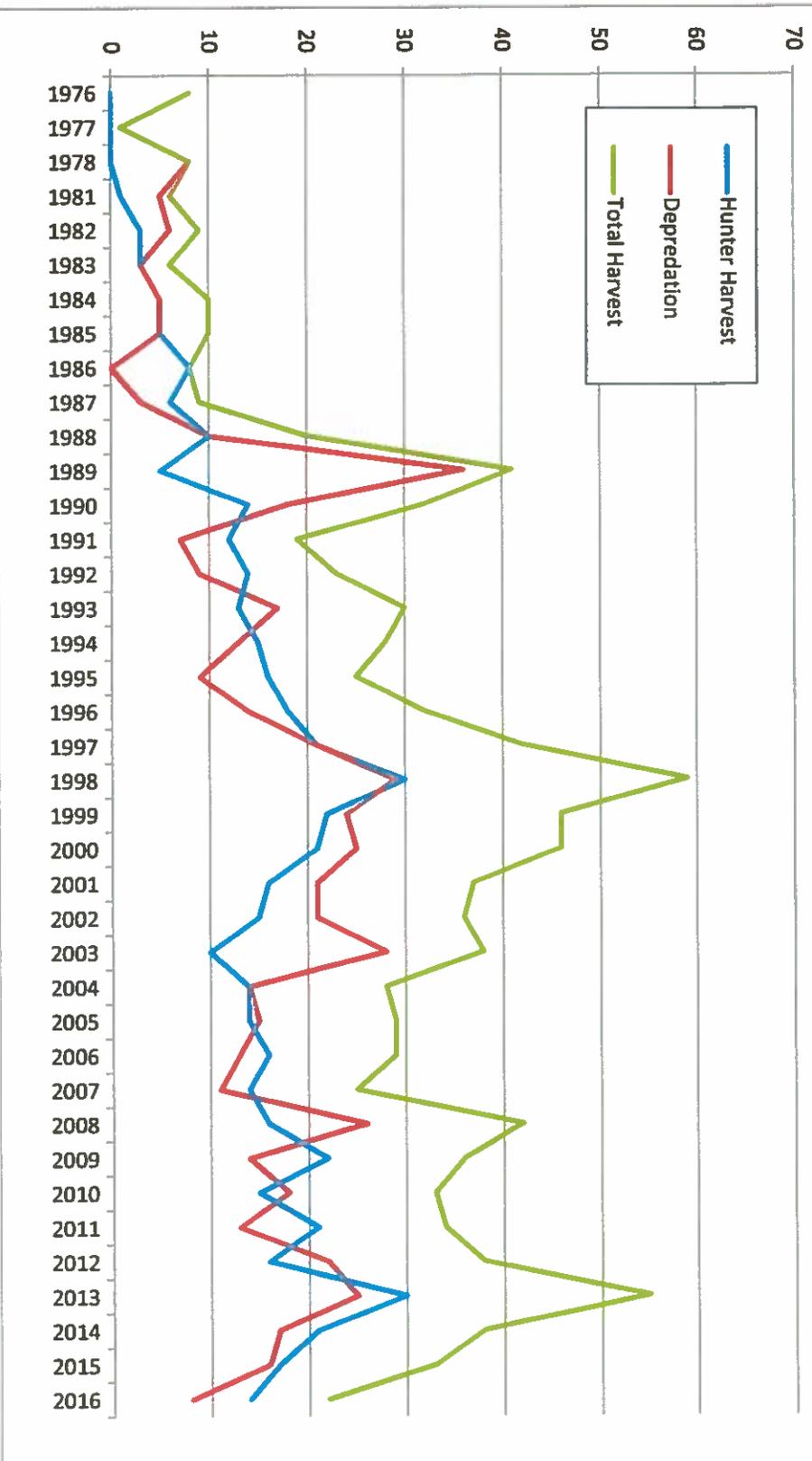
The mountain lion recommendation for 2017-18 is for no change to the hunt structure and to not reinstate the mountain lion MBL.

Figure 1.

YEAR	Mountain Lion Sport Harvest and Depredation GMU 31-32				Total 31/32	31/32 MBL
	SPORT 31	DEPRDATION 31	SPORT 32	DEPRDATION 32		
1997	6	11	15	10	21	42
1998	6	23	24	6	30	59
1999	9	20	13	4	22	46
2000	11	9	10	16	21	46
2001	4	13	12	8	16	37
2002	8	12	7	9	15	36
2003	5	18	5	10	10	38
2004	8	9	6	5	14	28
2005	8	11	6	4	14	29
2006	4	4	12	9	16	29
2007	4	7	11	4	15	26
2008	3	13	13	13	16	42
2009	7	6	15	8	22	36
2010	3	7	12	11	15	33
2011	6	5	15	9	21	35
2012	5	13	11	9	16	38
2013	7	14	23	11	30	55
2014	4	8	17	9	21	38
2015	6	5	11	11	17	33
2016	1	3	13	5	14	22
5 yr ave	5	9	15	9	20	37
10 yrAve	5	8	14	9	19	36
Total	115	211	251	171	366	748

Figure 2.

Mountain Lion Removals in GMUs 31/32



Hunt Recommendation For (Unit/Species): GMU31/32 Mountain Lion

Hunt Recommendation Submitted by: John Bacorn

John Bacorn 2/20/2017

Wildlife Manager Date

Duane J. Aubuchon 2/22/17 accepted modified

Sector Supervisor Date

John Mc 2/22/17 accepted modified

Game Specialist Date

Paul A. Vige 2-25-17 accepted modified

Regional Supervisor Date

_____ accepted modified

Game Branch Chief Date

_____ accepted modified

Executive Staff Date

Unit(s): 33 Species: Mountain Lion

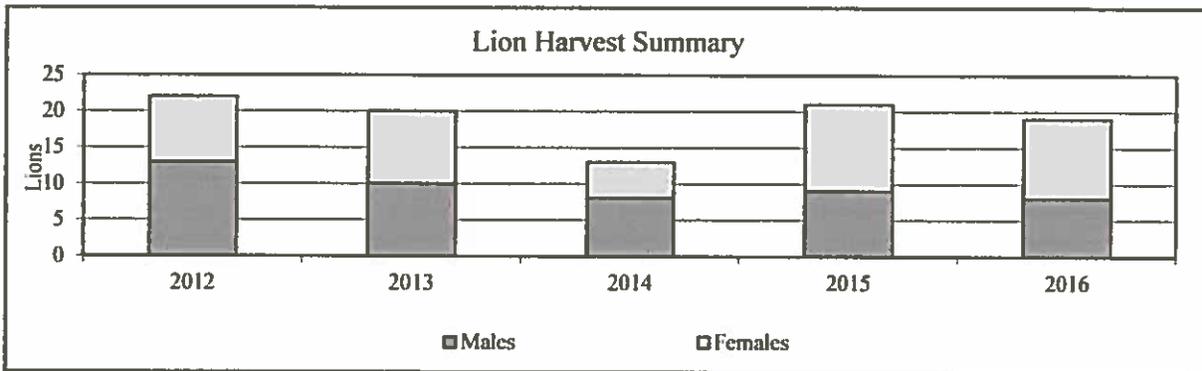
Year: 2016/17

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	13	9	22	2	9%	NO
2013	10	10	20	6	30%	NO
2014	8	5	13	1	8%	NO
2015	9	12	21	1	5%	NO
2016	8	11	19			
2-Year Mean					6%	NO

Management Considerations:

- *Continue Single Unit Management
- *No Female Harvest Limit Indicated



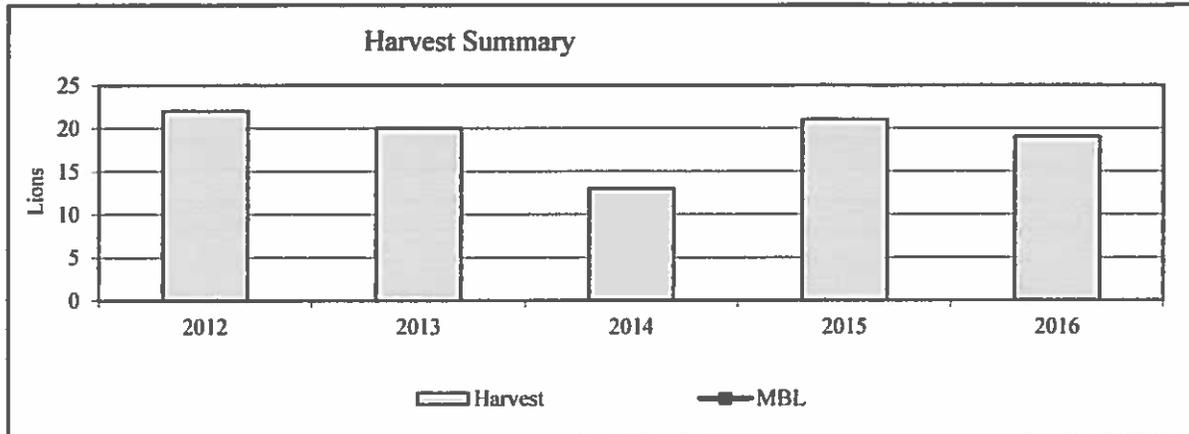
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	All of Unit 33	None	None

Submitted by: N. Foley, M. Guerena
Wildlife Managers

Amendments & Notes:

Game Branch Approval: _____ Date: _____



Mountain lion harvest in Unit 33 has remained relatively constant over the last five years averaging 19 lions per year in near equal sex ratios. White tailed deer numbers in the unit also remain high with excellent recruitment again documented this year during annual surveys. The healthy prey population is supporting a healthy and robust lion population as evidenced by the high average and sustained annual harvest.

In the fall of 2013, the first of three bighorn sheep restoration efforts occurred in the Santa Catalina Mountains in the northern half of Unit 33. An adaptive mountain lion management plan was developed by the Department and the project's Advisory Committee allowing the administrative removal of lions which preyed on collared bighorn. The Pusch Ridge Hunt Area (PRHA) was also created prohibiting the take of lions with the aid of dogs within the delineated area of Pusch Ridge Wilderness. This was created to be consistent with the Federal dog restrictions put in place in the same area to protect the bighorn sheep during the lambing season.

The reduction in the overall 2014 harvest is attributed to the misconception that all of Unit 33 was closed to lion hunting with the aid of dogs. Lion take using dogs in 2014 was approximately half of the average for this year. Once the boundaries of the PRHA were better understood by hunters, total harvest numbers and harvest with the aid of dogs numbers increased back to normal levels. The PRHA was discontinued in 2016 per Department and Advisory Committee recommendation.

Hunt Recommendation For (Unit/Species): 33/Mountain Lion

Hunt Recommendation Submitted by: Martin Guarena

Martin Guarena 2/22/17
Wildlife Manager Date

[Signature] 2/22/17 accepted modified
Sector Supervisor Date

[Signature] 2/23/17 accepted modified
Game Specialist Date

Raul A. Vazquez 2-25-17 accepted modified
Regional Supervisor Date

_____ _____ accepted modified
Game Branch Chief Date

_____ _____ accepted modified
Executive Staff Date

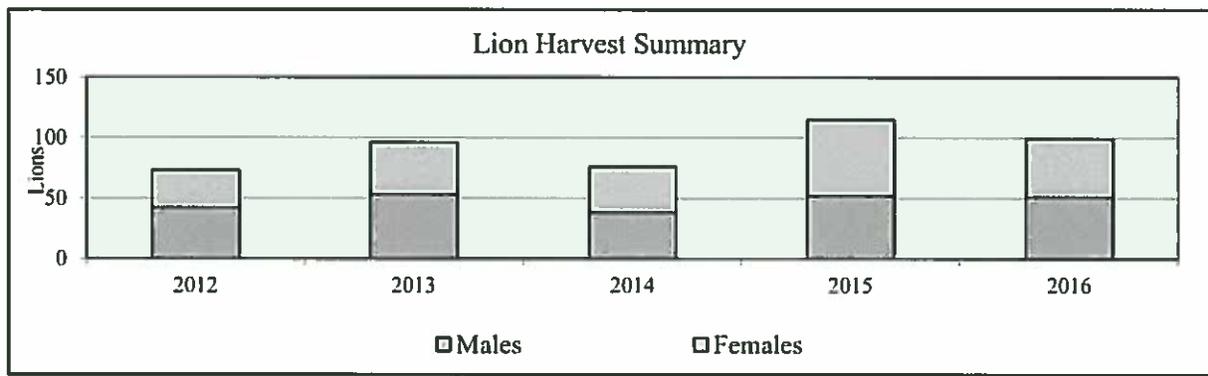
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	42	31	73	14	19%	NO
2013	53	43	96	18	19%	NO
2014	38	38	76	14	18%	NO
2015	52	63	115	23	20%	NO
2016	51	48	99			
2-Year Mean					19%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



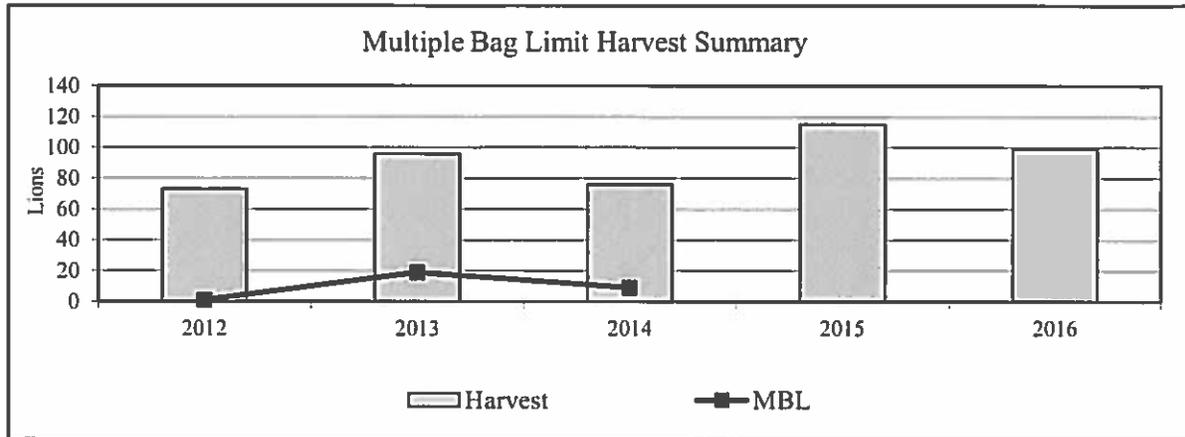
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	GMU 29, 30A, 30B, 31, 32, 33, 34A, 34B, 35A, 35B, 36A, 35B, 36A, 36B, 36C, 37A, 37B	None	None

Submitted by: Karen Klima
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



This recommendation includes all standard units in Region V except for GMU 28 which currently has a multiple bag limit. The harvest numbers do not include depredation or "other" take. In the past season, GMU 29 had one depredation, GMU 31 had 3 depredations, and GMU 32 had 5 depredations. There were two other harvests, one in GMU 34B and one in GMU 38M.

From 2011 through 2014, GMU 31/32 had a multiple bag limit. From 2011 to 2013, GM 37B north also had a multiple bag limit. The unit data, excluding the multiple bag limit area data, were included in the harvest summary totals on the recommendation template.

The 2017/2018 Mountain Lion Hunt Recommendation is for the population to be managed through a standard season structure.

Hunt Recommendation For (Unit/Species): Region Wide Mountain Lion (Standard)

Hunt Recommendation Submitted by: Karen Klima

N/A
Wildlife Manager Date

N/A accepted modified
Sector Supervisor Date

Karen Klima 2/22/17 accepted modified
Game Specialist Date

Paul A. Vega 2-25-17 accepted modified
Regional Supervisor Date

accepted modified
Game Branch Chief Date

accepted modified
Executive Staff Date

Unit(s): 20B

Species: Mountain Lion

Management Notes:

Mountain Lion Recommendation – Unit 20B

Submitted by: R. Babel

Open Season Dates: July 1, 2017 – June 30, 2018

Open Areas: Unit wide

Legal Animal: Any Mountain Lion except spotted kittens or females accompanied by spotted kittens.

Number of Permits: Unlimited

Change from last year: None

Notes:

*2014 One sport harvest female and one roadkilled female

*2016 Cementum age data not available at time of hunt recommendation.

*Two adult Mtn. Lions observed during 2016 helicopter deer/javelina surveys

Unit(s): 20B

Species: Mountain Lion

Year: 2017/18

Management Notes:

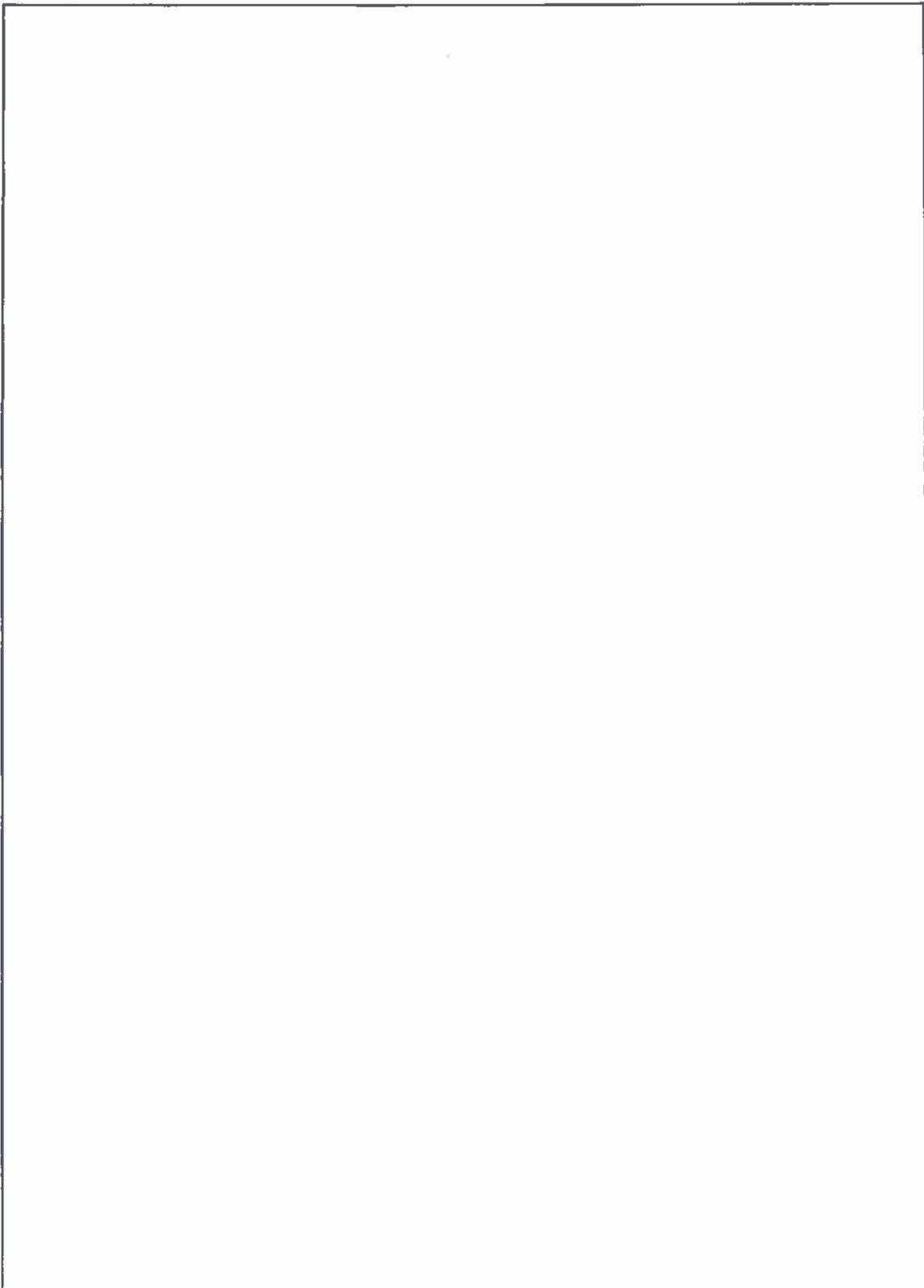
Year	Sex	Cementum Age	Estimated Age
2016	M	-	-
2016	M	-	-
2016	F	-	-
2016	F	-	-
2015	M	-	4
2015	M	2	4
2015	M	5	5
2014	F	5	7
2014	F	4	3
2013	M	10	10
2013	M	3	4
2013	M	5	5
2013	F	4	-
2013	F	-	3
2013	F	-	-
2012	F	-	1
2012	M	-	4
2012	M	-	6
2011	F	4	3
2011	M	-	-
2011	F	6	7
2010	M	3	4
2010	F	5	7
2010	F	-	3
2009	M	-	1
2009	M	-	1
2008	M	6	6
2008	M	-	-
2008	M	-	-
2007	F	8	8
2007	F	-	1
2007	M	4	-
2007	F	1	3
2007	M	-	1
2007	F	4	-

Unit(s): 20B

Species: Mountain Lion

Year: 2017/18

Management Notes:

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Unit(s): 21

Species: Mountain Lion

Year: 2017/18

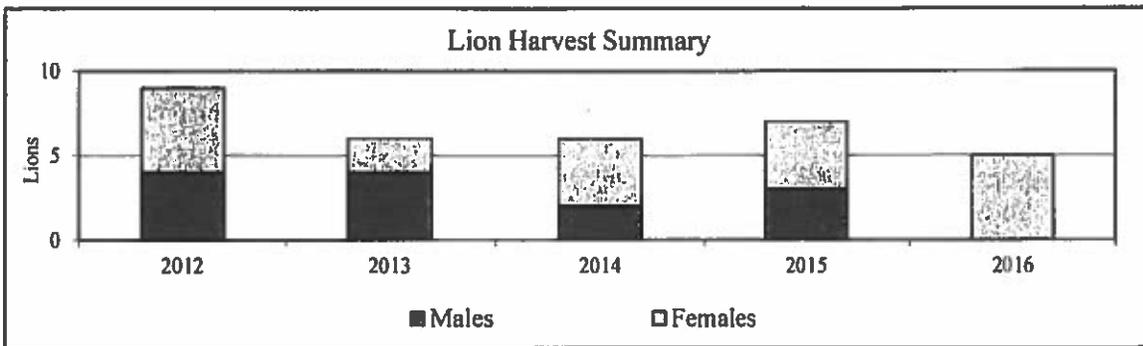
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	4	5	9	1	11%	NO
2013	4	2	6	1	17%	NO
2014	2	4	6	1	17%	NO
2015	3	4	7	1	14%	NO
2016	0	5	5			
2-Year Mean					15%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2016 thru June 30, 2017	Unit 21 - Unit Wide		None
Multiple Bag Limit (MBL)	July 1, 2016 thru June 30, 2017	Unit 21 - Unit Wide	12	

Submitted by: Kyle Cooper
Wildlife Manager(s)

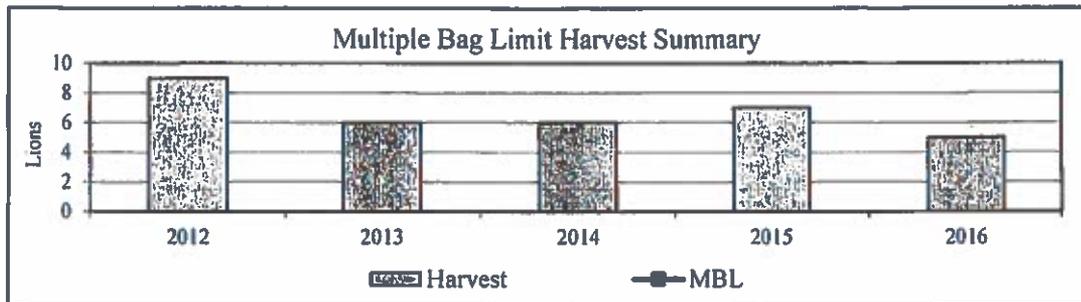
Amendments & Notes:

Game Branch Approval: _____ Date: _____

Unit(s): 21

Species: Mountain Lion

Year: 2017/18



Significant Management Issues, Opportunities or Challenges:

Overall, the mountain lion population in Unit 21 is healthy. The Unit 21 mule deer population is improving. As the mountain lions prey base increases it is expected that the mountain lion population is also likely to increase. Unit 21 is currently part of a program to increase the mule deer population. Some of the projects include habitat improvements and water developments. Another factor limiting Unit 21 mule deer from increasing is predation. Speaking with several of those who hunt lions with dogs, they choose not to harvest female lions or young lions. The reason being, they do not want their hunting season to be over from tagging a female or young cat. So quite often they do not fill their tag. Plus they want to be able to run their dogs throughout the entire season. If we open Unit 21 to a Multiple Bag Unit, I would expect harvest rates to increase therefore reducing predation on mule deer.

I am requesting Unit 21 become a Multiple Bag Unit with a max of 12 lions harvested. At that point, the hunt structure returns back to a normal hunt unit until the next hunt season.

The mountain lion MBL is recommended for Unit 21 for multiple reasons with the first two being primary goals and the last two being ancillary benefits to the addition of a MBL. They are: 1) to assist and enhance the fawn to doe ratios and increase the overall population of Pronghorn; 2) to assist and enhance the fawn to doe ratios and increase the overall population of mule deer in association with the Wildlife Habitat Enhancement Initiative (WHEI); 3) to reduce lion depredation on livestock; 4) increase hunter opportunity and harvest as determined through anecdotal conversations and contacts of hunters that are not maximizing opportunity of take/harvest due to releasing females in efforts of taking a mature male.

The Unit 21 mountain lion MBL will follow prescriptions and opportunities as outlined in the Unit 21 Predation Management Plan.

MEASUREABLE OBJECTIVES

*The MBL will be discontinued in Unit 21 as described in the Unit 21 Predation Management Plan and will include: 1) once fawn to doe ratios for pronghorn and mule deer maintain 3 year trend data as outlined in the Hunt Guidelines prescriptions; 2) after a period of 3 years following the completion of the Unit 21 WHEI Mule Deer Initiative projects; and 3) after a determination has been made that continued use of the MBL is not beneficial or necessary for the enhancement of Pronghorn and mule deer within the project area.

*Once the MBL is discontinued when viable populations of Pronghorn and mule deer become established within goals and objectives, the MBL may be reinstated at a later date if population levels of either Pronghorn or mule deer decrease to a level determined to be detrimental to maintaining viable population levels; or if doe to fawn ratios fall below established limits established within Hunt Guidelines; or if the additional triggers are determined through the Unit 21 Predation Management Plan.

Unit(s): 22

Species: Mountain Lion

Year: 2017/18

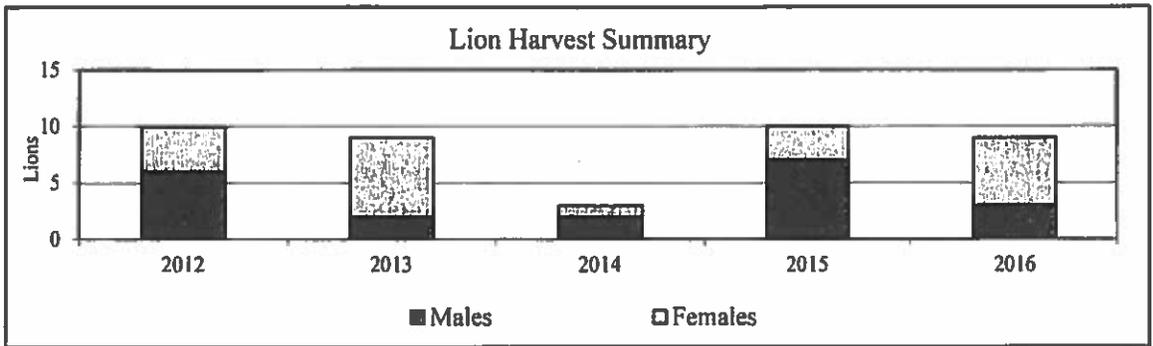
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	6	4	10	1	10%	NO
2013	2	7	9	2	22%	NO
2014	2	1	3	0	0%	NO
2015	7	3	10	0	0%	NO
2016	3	6	9			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



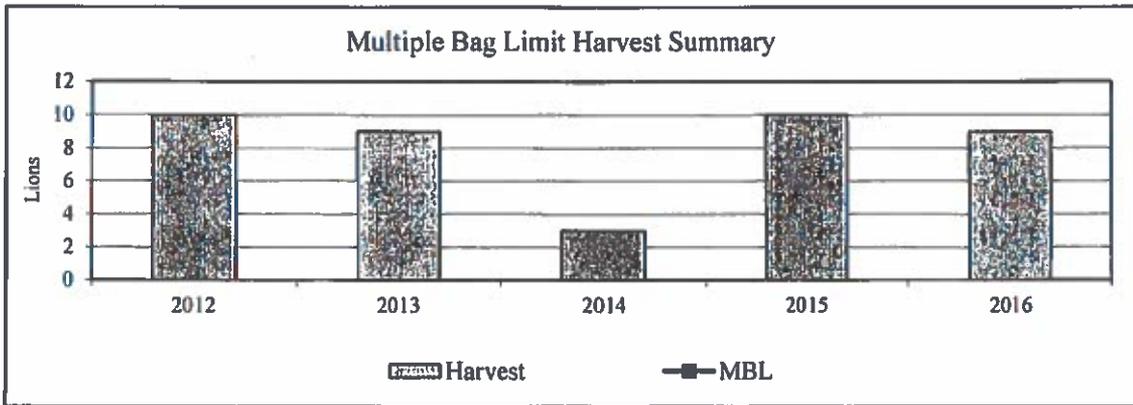
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Unit 22	None	None

Submitted by: John Dickson
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

A total of 9 lions (3 male and 6 female) were harvested from Unit 22. Calculated adult female harvest is less than 35% of total harvest and is within guidelines.

The mountain lion population in Unit 22 appears to be stable and healthy from the harvest information, therefore I recommend no change from the current standard hunt structure.

Unit(s): 23

Species: Mountain Lion

Year: 2017/18

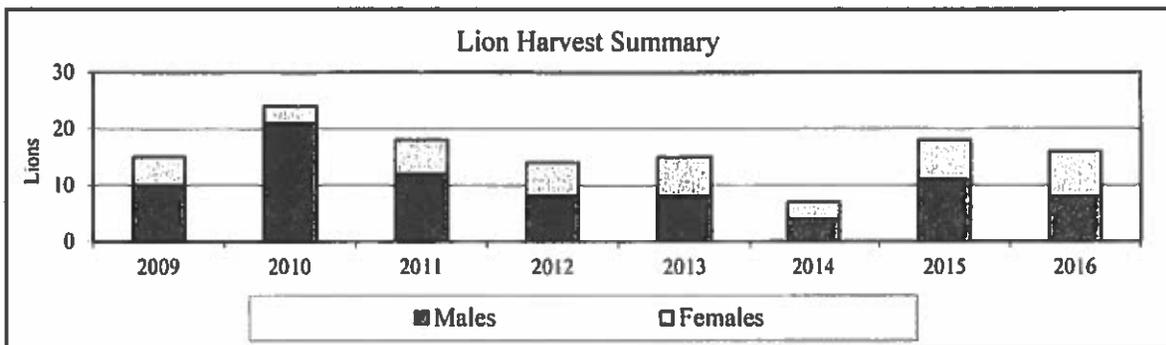
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (>3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	10	5	5	2	40%	YES
2010	21	3	24	3	13%	NO
2011	12	6	18	3	17%	NO
2012	8	6	14	6	43%	YES
2013	8	7	15	2	13%	NO
2014	4	3	7	0	0%	YES
2015	11	7	18	1	6%	NO
2016	8	8	16			
2-Year Mean					22%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July, 1, 2017 - June 30, 2018	Unit 23 - Unitwide	None	None

Submitted by: Danny Rodriguez
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____

Date: _____

Unit(s): 23

Species: Mountain Lion

Year: 2017/18

Management Notes:

Harvest Information:

The three-year mean combined harvest of sport and depredation for Unit 23 is 13 mountain lions. Reported harvest last year was 18 mountain lions in Unit 23. Harvest the past five years was 14(2012), 15(2013), 7(2014) , 18 (2015), and 16 (2016).

For 2015, female tooth data was available for a total of 5 . Of which, only one was 3 years old and the rest were younger .

Conclusion:

The mountain lion population in Unit 23 appears to be stable and healthy. This year's harvest included 8 female and 8 male lions. Field observations include recognition that more mountain lions are killed during periods of snow as hunters utilizing hounds are more predominant and successful.

Recommendation:

No change from the current hunt structure is recommended.

Unit(s): 24A

Species: Mountain Lion

Year: 2017/18

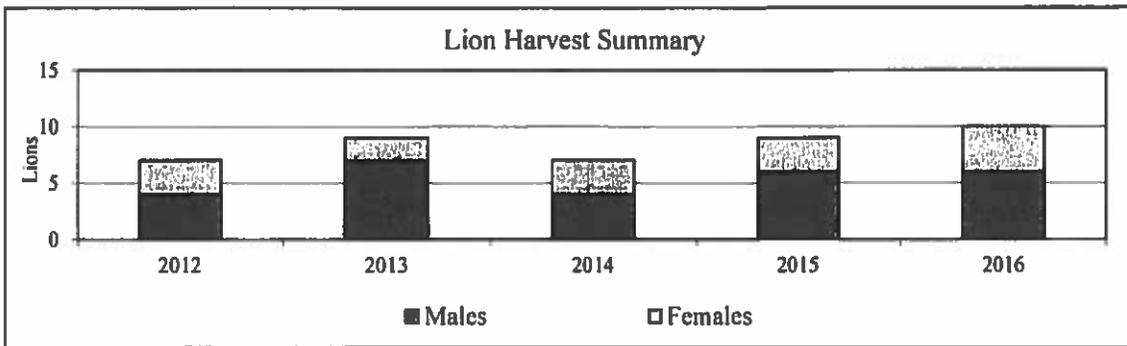
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (>3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	4	3	7	1	14%	NO
2013	7	2	9	1	11%	NO
2014	4	3	7	1	14%	NO
2015	6	3	9	2	22%	NO
2016	6	4	10			
2-Year Mean					19%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



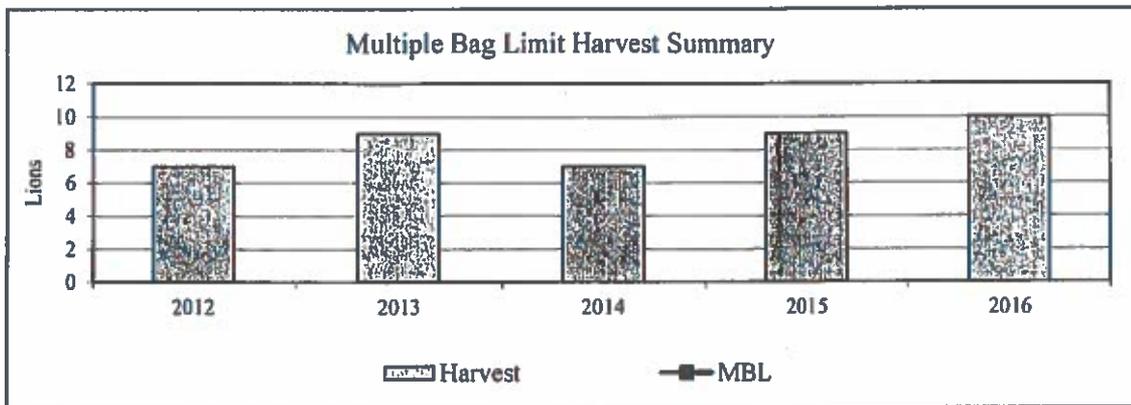
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Unit wide	None	None

Submitted by: Grant Pearce
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____



For 2016, a total of 10 lions were reported as sport harvested of which 6 were males and 4 were females. For 2015, a total of 9 lions were reported as sport harvested of which 6 were males and 3 were females. For 2014, a total of 7 lions were reported as sport harvested of which 4 were male and 3 were females.

Tooth data for 2016 showed the average age of the known tooth data of 3 females harvested was 3.6 years.

The unit is comprised of 810 square miles with 659 square miles classified as medium lion density and 162 miles as low mountain lion density. The population also fluctuates with the emigration-immigration of lions from San Carlos Reservation. Based on the age and harvest data, lion populations appear to be stable.

The lion distribution is unit wide and travel corridors are unknown.

I recommend the season to follow guidelines and run from July 1, 2017-June 30, 2018 - no change from the previous year.

Unit(s): 24B

Species: Mountain Lion

Year: 2017/18

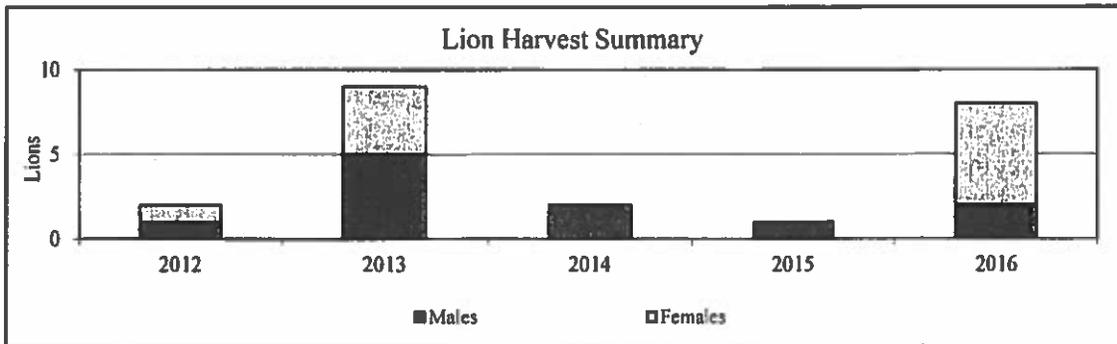
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	1	1	2	1	50%	YES
2013	5	4	9	2	22%	NO
2014	2	0	2	0	0%	NO
2015	1	0	1	0	0%	NO
2016	2	6	8			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

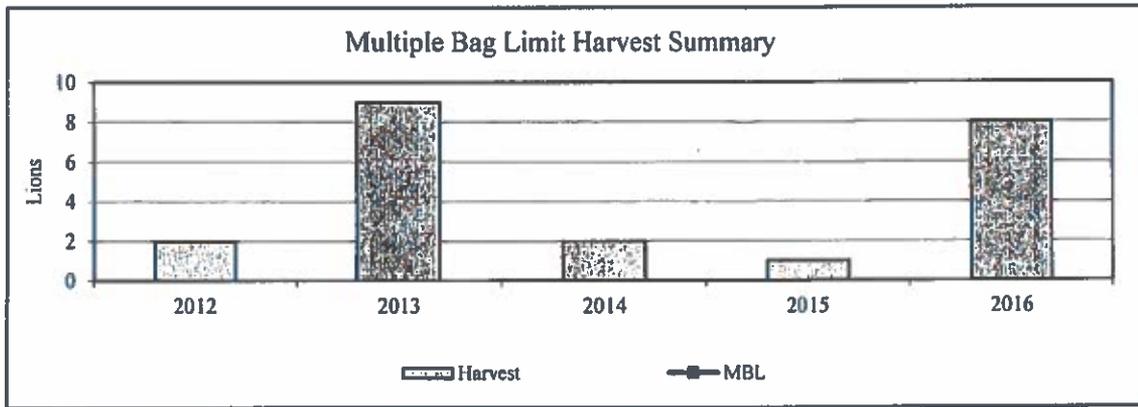
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Unit 24B	None	None

Submitted by: Kriselle Colvin
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____

Date: _____



Significant Management Issues, Opportunities or Challenges:

Unit 24B has historically maintained a viable lion mountain population that has sustained hunting pressures ranging from low to high levels of participation. During the decades of the 60's, and 70's local ranchers and hunters took relatively high numbers of lions. As livestock operations have changed over the years, the focus on lion hunting has shifted more toward sport hunters. As a result, there have been years of low to moderate activity, due in part to extremely rugged terrain throughout a large part of the unit. In 2013, sport hunters appear to have taken an increased interest in Unit 24B for lion hunting, in 2014 and 2015 harvest was low and then in 2016 harvest increased to eight. This may be attributed to the attention the unit has recently received as a prime bighorn sheep unit, offering increased opportunity for taking high-scoring trophy rams. Recent hunters have indicated that they have expressly taken lions in bighorn sheep habitat in order to have a positive effect on sheep numbers. As in the past, the Unit 24B lion population has demonstrated that it is able to sustain a yearlong lion season.

Unit(s): 37B

Species: Mountain Lion

Year: 2017/18

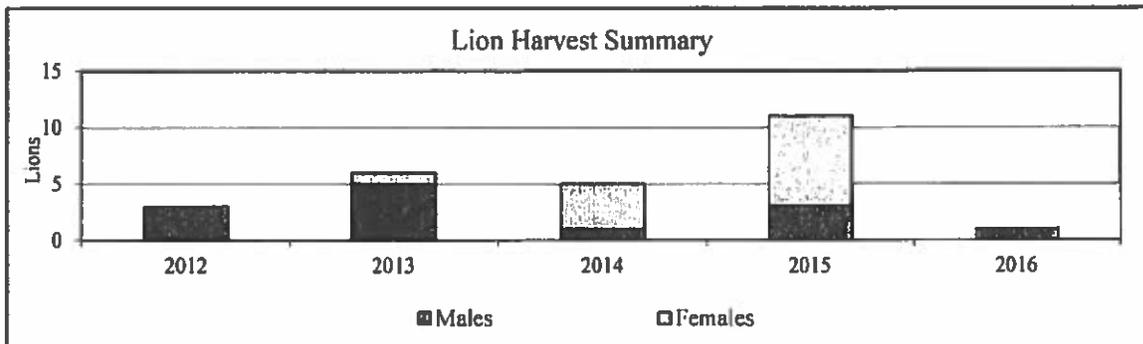
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2012	3	0	3		0%	NO
2013	5	1	6		0%	NO
2014	1	4	5	2	40%	YES
2015	3	8	11		0%	NO
2016	1	0	1			
2-Year Mean					13%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

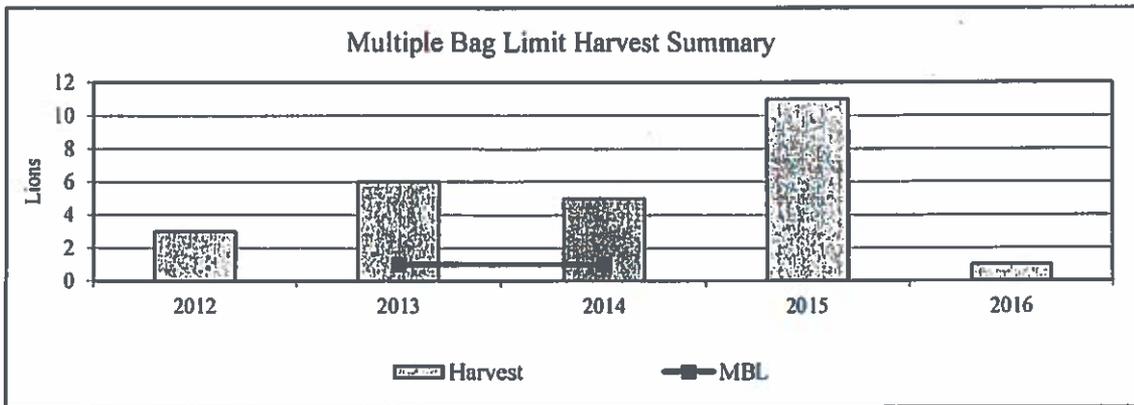
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2017 - June 30, 2018	Unit 37B	None	None

Submitted by: Laura Orscheln
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____

Date: _____

**Regional Notes:**

1 male mountain lion was harvested from Unit 37B in 2016.

With the limited harvest and direct observations during 2016, it is assumed (but difficult to conclusively state) that the mountain lion population is healthy and sustaining. The population will continue to be monitored to determine if it is stable or decreasing.

Significant Management Issues, Opportunities or Challenges:

Prior to 2016, Unit 37B North was managed as a multiple bag limit (MBL) hunt structure for mountain lions. Based off of the bighorn population estimates and on the ground observations, a viable bighorn sheep population has been established, therefore the northern portion of Unit 37B no longer has a MBL mountain lion hunt.

MEASURABLE OBJECTIVES (MET)

* The MBL was discontinued in GMU 37B in 2015, as a viable population of bighorn sheep has been established.

* The MBL may be reinstated at a later date if sheep population levels fall to or below 30 individuals and predation is determined to be a key factor.