

Unit(s): 1

Species: Mountain Lion

Year: 2013/2014

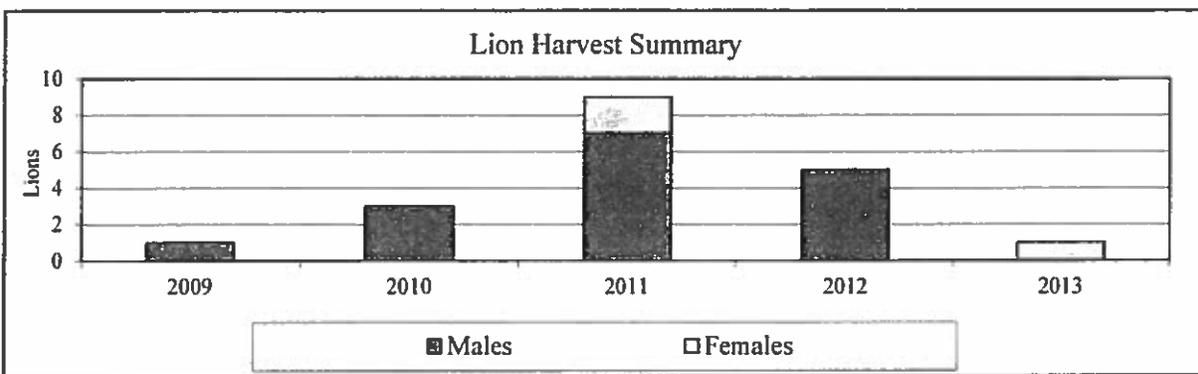
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	0	1		0%	NO
2010	3	0	3	0	0%	NO
2011	7	2	9	1	11%	NO
2012	5	0	5	0	0%	NO
2013	0	1	1			
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, 2014 - June 30, 2015	Unit 1 - Unitwide	None	None

Submitted by: T. Richins, J. Capps
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____

Date: _____

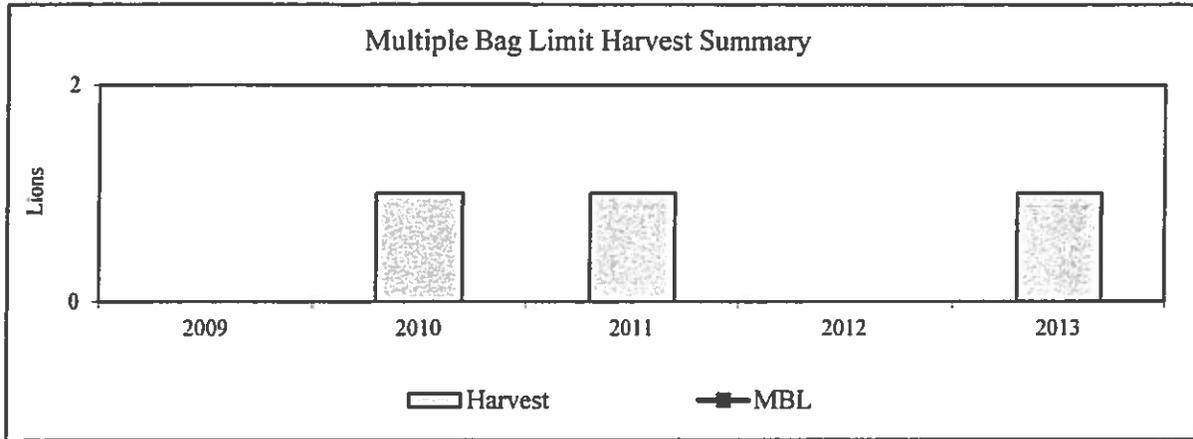
Unit(s): 1

Species: Mountain Lion

Year: 2013/2014

Management Notes:

It is recommended, in Unit 1, to follow the standard hunt season structure for mountain lion without a female harvest limit. The 2-year mean of adult females harvested is less than 35%. This recommendation is within guidelines.



Maintain current hunt structure of July 1, 2014 June 30, 2015 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, 2014 June 30, 2015 with a bag limit of one lion per year. This season and bag limit is consistent with most of the state.

Unit(s): 2ABC

Species: Mountain Lion

Year:

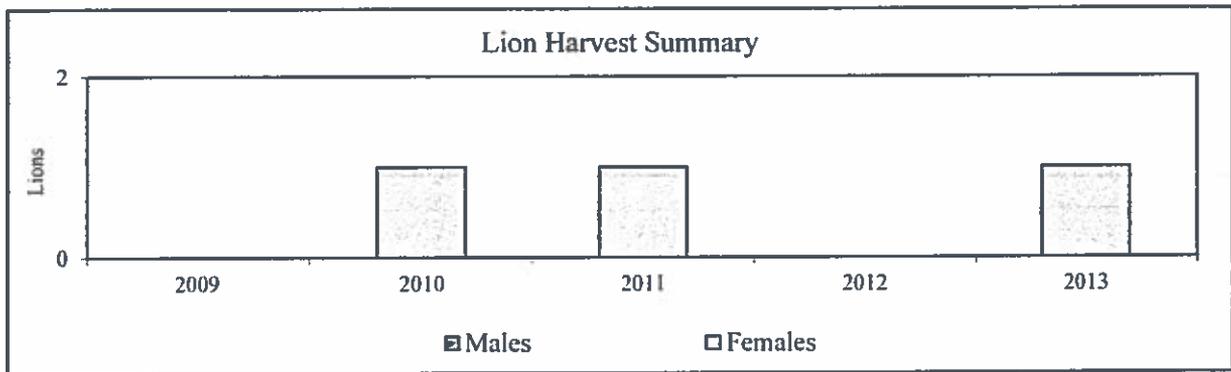
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009			0		#DIV/0!	#DIV/0!
2010		1	1		0%	NO
2011		1	1		0%	NO
2012			0		#DIV/0!	#DIV/0!
2013		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, 2014-June 30, 2015	Unit 2ABC, unit wide	None	None

Submitted by: Joel Weiss
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____ Date: _____

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

Species: Mountain Lion

Year: 2013/14

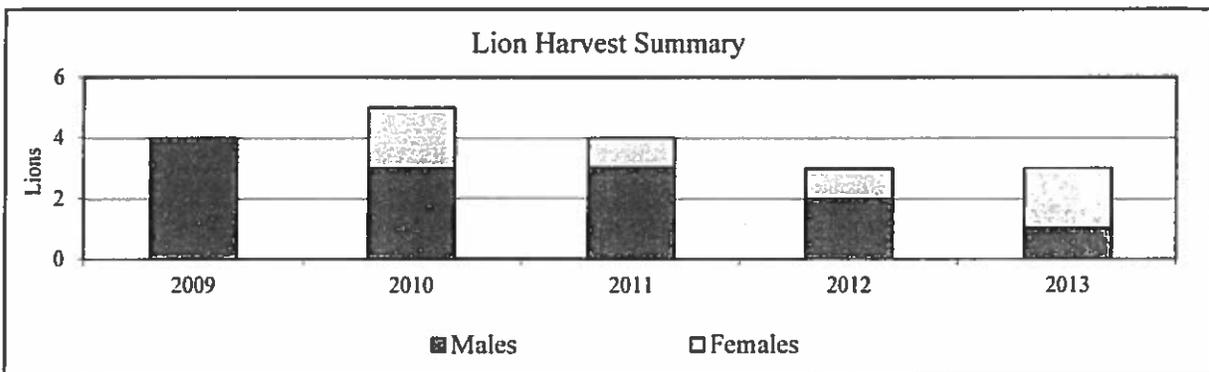
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	4	0	4	0	0%	NO
2010	3	2	5	0	40%	YES
2011	3	1	4	0	25%	NO
2012	2	1	3	0	33%	NO
2013	1	2	3			
2-Year Mean					29%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

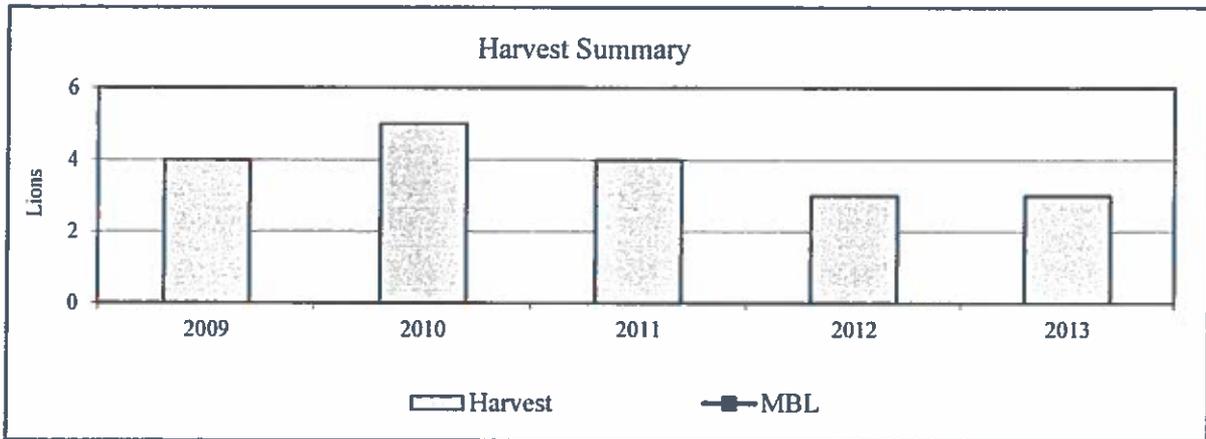
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2014 - June 30, 2015	Unit 3A, 3B, 3C - Unit-wide	None	None

Submitted by: Shawn Wagner
Wildlife Manager(s)

Amendments & Notes:

Reviewed by Bob Birkeland on 2-13-14

Game Branch Approval: _____ Date: _____



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

In 2011, we have age data for three (3) lions and all were harvested in Units 3B and 3C. In addition, only one lion was a breeding age adult.

Age Data in 2012 (most current data): Female - 2 yrs old (3C)

Male - 1 yrs old (3C)

Male - 4 yrs old (3C)

In 2012, a one-year old male lion was killed by Department personnel in Lakeside pursuant to protocol. The lion was remaining in a residential area for extended periods and attempted to kill a pet cat. This animal was not included in the harvest totals.

One 2-year old male lion was killed by a vehicle collision on Highway 60 in GMU 3B in November, 2012. This animal is not included in the harvest totals.

In 2013, hunters harvested three lions in Units 3B and 3C. These included two male lions and one female lion.

In 2013, a 1.5-year old male lion was killed by Department officers after it attacked a pet in a residential area in Show Low. It was submitted for rabies testing and the results were negative. The carcass was submitted to the Department Wildlife Health Specialist for additional disease testing. This animal was not included in the harvest totals.

Unit(s): 4A/B

Species: Mountain Lion

Year: 2013/14

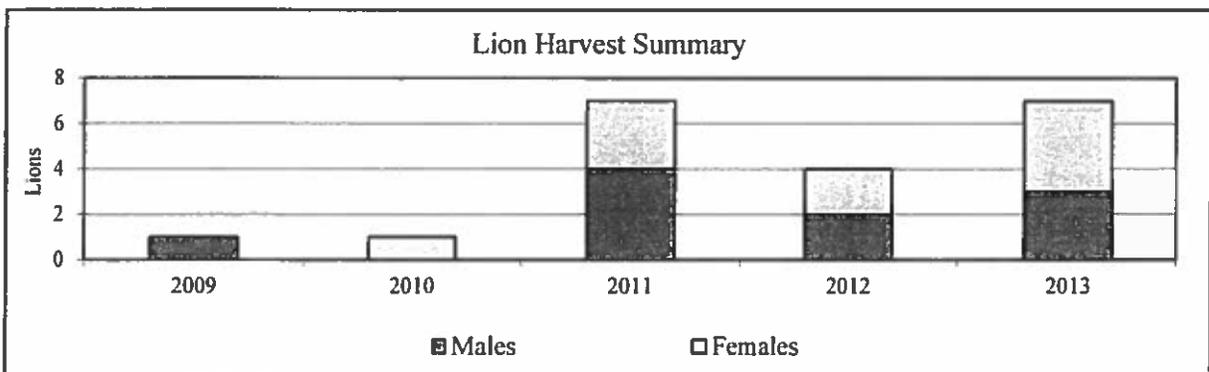
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	0	1		0%	NO
2010	0	1	1	1	100%	YES
2011	4	3	7	0	0%	NO
2012	2	2	4	0	0%	NO
2013	3	4	7			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

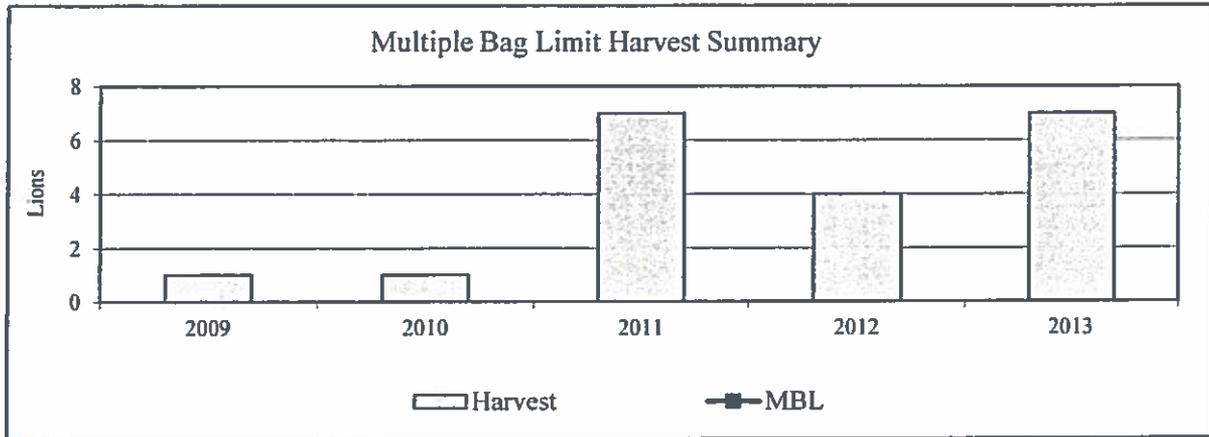
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2014 - June 30, 2015	Units 4A & 4B	None	None

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: 2009 - M ale : 4 years old (Unit 4B)

2010 - Female: 1 year old (4B)

2011- 3 females: all at 2 YOA

2012- 1 female less than 3 YOA 1 unk

2013-1 female 7YOA 3 females less then 3YOA (Estimated ages from check-out cards)

Unit(s): 27

Species: Mountain Lion

Year: 2013/14

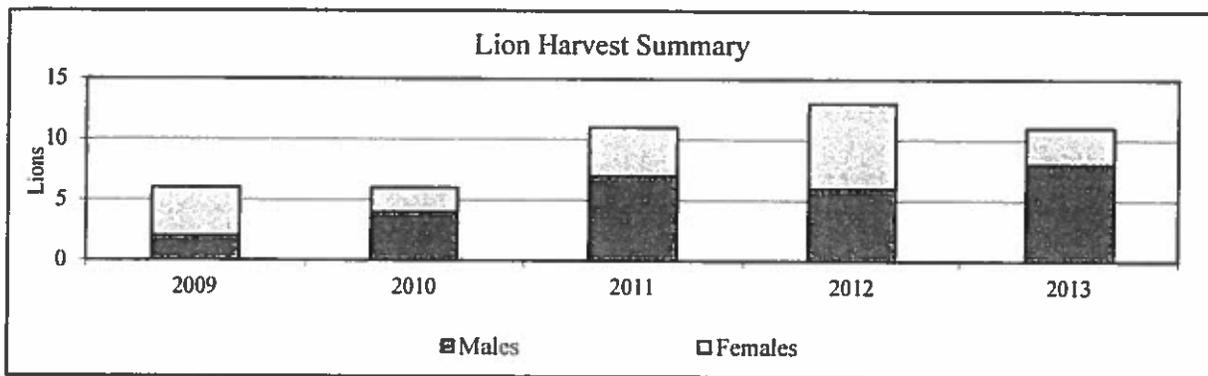
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	2	4	6	3	50%	YES
2010	4	2	6	1	17%	NO
2011	7	4	11	1	9%	NO
2012	6	7	13	1	8%	NO
2013	8	3	11			
2-Year Mean					8%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



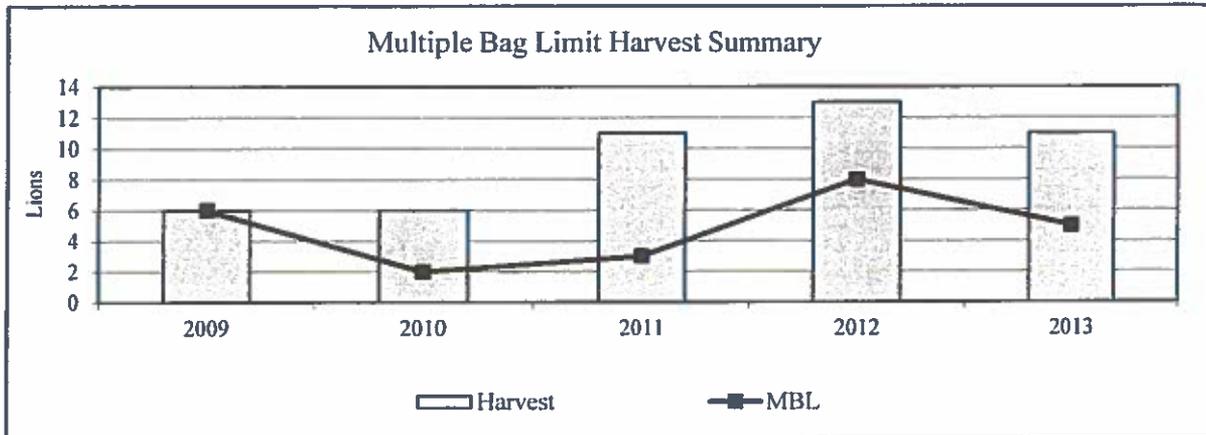
Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2014 - June 30, 2015	Unit 27, except multiple bag limit areas	None	None
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	Upper Blue River Hunt Area in Unit 27	8	None
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	Lower Blue River Hunt Area in Unit 27	10	None

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

Amendments & Notes:

Game Branch Approval: _____ Date: _____



Significant Management Issues, Opportunities or Challenges:

*No data is currently available for depredation harvest.

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 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, 2014 through June 30th of 2015, 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. This area was expanded when the Lower Blue River Hunt Area was established for the sheep hunt. With the data available it appears that five lions were killed in this area in 2013. The Area boundary and description for this hunt should again read as follows:

Beginning at the New Mexico State Line at the junction with US Highway 78; west along Highway 78 to Forest Road 212; northwest along FR 212 to the San Francisco River; southwest along the San Francisco River to Sardine Canyon; west along Sardine Canyon to US Highway 191; north along US Highway 191 to Forest trail 14 (AD Bar Trail); east along Forest trail 14 to the Blue River; south along the Blue River to the confluence of the Little Blue River; northeast along the Little Blue River to Forest trail #41; east along Forest trail 41 to the New Mexico State Line; south along the New Mexico State line to the junction with US Highway 78.

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 80 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 80 and one of the last two years of survey data indicates lamb recruitment is above 35%.

It is recommended to **maintain the "Upper Blue River Hunt Area in Unit 27"**. It is also recommended to maintain the MBL target at **8 animals**. This will be the second year for this MBL area that includes both the Foote Creek and Bear Canyon areas. With a slightly declining sheep population it is hoped that maintaining this MBL area will help the sheep population. The Area boundary and description for this hunt should again read as follows:

Upper Blue River Hunt Area in Unit 27 - That portion of Unit 27 beginning at the Junction of U.S. Highway 180 and the New Mexico state line; south along the New Mexico state line to Forest Trail 41; northwest along Forest Trail 41 to the Little Blue River; south-southwest along the Little Blue River to the confluence of the Blue River; north along the Blue River to Forest Trail 14; west on Forest Trail 14 to U.S. Highway 191; north on U.S. Highway 191 to U.S. Highway 180; east on U.S. Highway 180 to the New Mexico state line.

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 one of the last two years of survey data indicates lamb recruitment is above 35%.

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 indicate a decline in the number of mature rams in the Upper Blue River Hunt area as well as an overall slightly declining population. Surveys in the Lower Blue River Hunt area reveal very few ewes and lambs as well as a disproportionate age structure of rams in the population. 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. Most recent data indicates that only 8% of the harvest is composed of adult females.

Unit(s): 13B/13BS Species: Mountain Lion

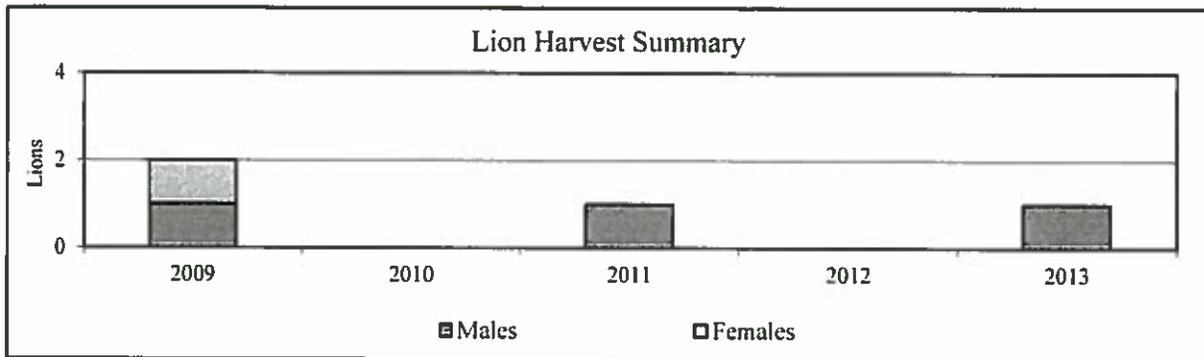
Year: 2014/15

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	1	2	1	50%	YES
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	1	0	1	0	0%	NO
2012	0	0	0	0	#DIV/0!	#DIV/0!
2013	1	0	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, 2014 - June 30, 2015	13B - Not Including the 13BS portion	None	None
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	13BS	10	

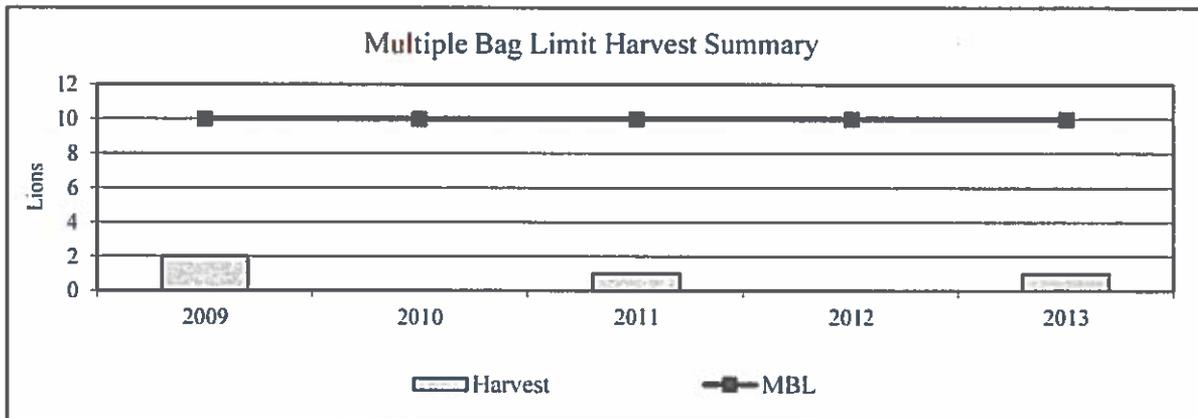
Submitted by: Tim Shurtliff
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/11/14



Significant Management Issues, Opportunities or Challenges:

The 13BS hunt unit has a multiple bag limit that has been in effect since 2002. ~17 mountain lions have been harvested as part of this hunt. The objective in establishing this multiple bag limit hunt was to 1) remove predatory pressure on a struggling 13BS bighorn sheep population in hopes to improve survival and lamb production, and 2) provide an incentive to mountain lion hunters to travel to 13B and harvest when they otherwise would not because of hunting areas in closer proximity to home.

Following a 2012 change in Commission Rule, licensed mountain lion hunters can now hunt mountain lions during a "Daylong" season in 13BS.

In recent years triggers for the 13BS bighorn sheep population have been established that would determine the appropriateness of the multiple bag limit lion hunt. Those triggers have been clarified and are as follows:

To Continue the Hunt: The following stipulations apply:

1. A five-year average lamb:ewe ratio lower than what is recommended by Remington for a stable Arizona Bighorn Sheep Population (22:100);
2. A decline in the average number of class III and IV rams available for harvest within the population. The 15% threshold would be equal to 2 or fewer permits on the permit worksheet;

To End the Hunt: The following stipulations apply:

1. An average lamb:ewe ratio above what is recommended by Remington for a stable Arizona Bighorn Sheep Population (22:100), based on survey data for two consecutive survey periods;
2. An increase in class III and IV rams available for harvest. The 15% threshold would be equal to 3 or more permits on the permit worksheet;
3. No Lion Harvest for 3 consecutive years.

Recommendation and Discussion

In general 1 stipulation has been met to continue the hunt, and 1 stipulation has been met to end the hunt. It is recommended to continue the multiple bag limit hunt with the discussion below.

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.

Mountain lion predation on bighorn has been documented in the Grand Wash Cliffs and is a potential control on a struggling bighorn sheep population. In fact the 13BS bighorn population, until recent years, has experienced low lamb production, and ram survival. Data and biological knowledge suggested that mountain lion predation may be one factor limiting the 13BS bighorn population.

The multiple bag limit hunt provides an incentive to mountain lion hunters to harvest in 13B when they normally would hunt elsewhere, while at the same time allowing the Department to use an effective predator management tool in management of the bighorn sheep population.

The mule deer population, the primary prey base of lions throughout 13B has increased in recent years. The fawn:doe ratio recorded during 2013 winter mule deer surveys was 59:100. The 3 year average is 73:100. In addition, survey numbers have increased over the past 10 years in 13B and the population is slowly growing.

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 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.

These types of sightings were uncommon prior but not unexpected with current conditions in the unit - the mountain lion population is responding favorably to the mule deer prey base, despite the continued multiple bag limit hunt. In other words, the multiple bag limit hunt does not appear to be having an adverse impact on mountain lions.

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 is 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 13B and 13A come from non-residents. This may have a small impact on the number of lions that get harvested in 13B and in 13BS in the upcoming years.

Unit(s): 15BW, 15C, 15D Species: Mountain Lion

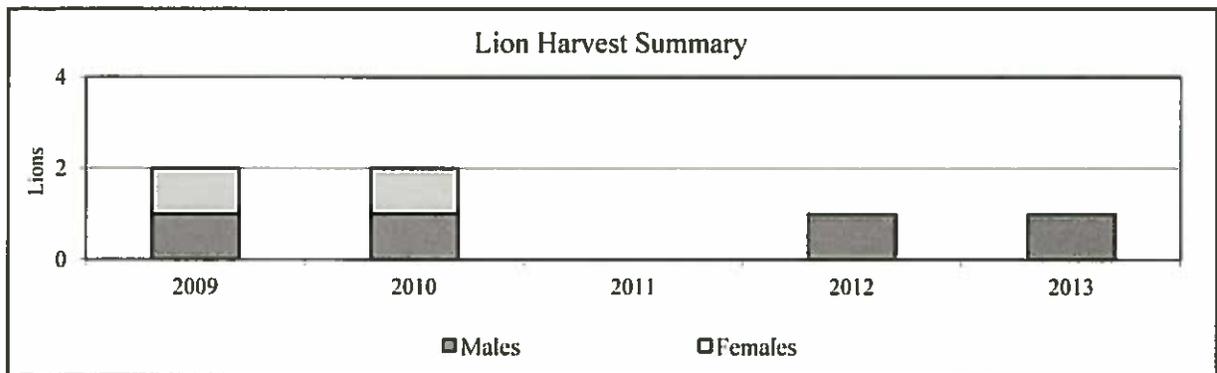
Year: 2013/14

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	1	2	1	50%	YES
2010	1	1	2		0%	NO
2011			0		#DIV/0!	#DIV/0!
2012	1		1		0%	NO
2013	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
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	15B West, 15C, 15D	10	10

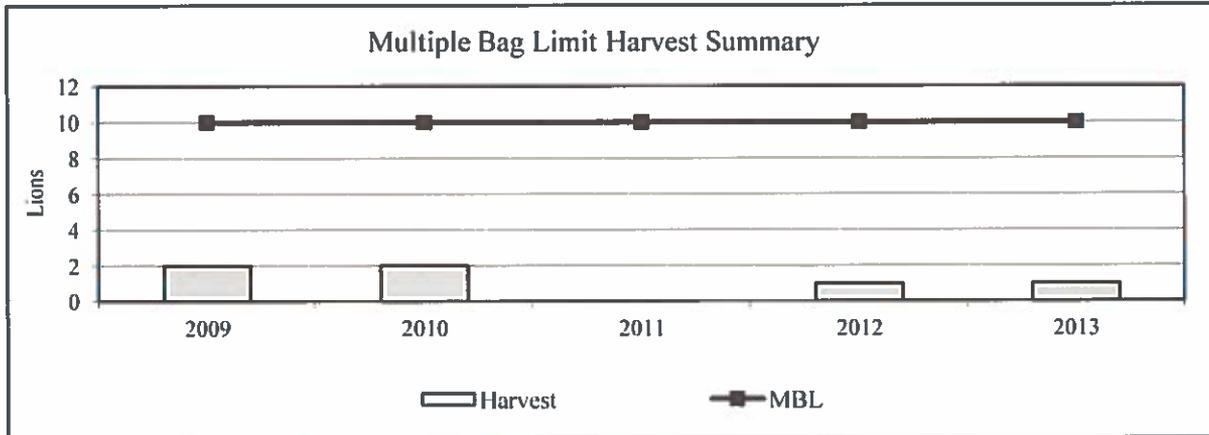
Submitted by: Gunnar Erickson, Luke Apfel

Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/6/14



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 it was 9.1, which is down from last year at 12.1.
- * Average sheep observed in Unit 15CS reaches the 20-year average of >108 sheep. In 2013 it was 52, which is also down from 74 last year.

In the 2014-2016 hunt guidelines minimal occurrence zones for mountain lions with liberalized harvest strategies are outlined. Units 15BW, 15C & 15D are included in the guidelines as a minimal occurrence zone, however the region would like to recommend 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.

In the 2004-2005 hunt season, Units 15BW, 15C and 15D were added to the multiple bag limit hunt area, as outlined in the recently update Black Mountains Predation Adaptive Management Plan. The hunt is to encourage removal of mountain lions by sport hunters to reduce predation on a declining bighorn sheep population. The harvest objective was placed at 10 due to the high density of lions in the area. Mountain lions have been seen several of the last few years during the October sheep aerial survey. 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 harvest in Unit 15BW.

Mountain lion predation was documented in Unit 15BW by the regional wildlife technician in 2013. The technician was tracking at least one lion which was preying on bighorn sheep. This predation in Unit 15BW could be a factor in the continued decrease in sheep observations during the sheep survey in 2010-2011. In 2013, two domestic goats were seen and subsequently removed from Unit 15CS, where we saw a decrease in the bighorn sheep this year.

Unit(s): 16AS, 18BS Species: Mountain Lion

Year: 2013/14

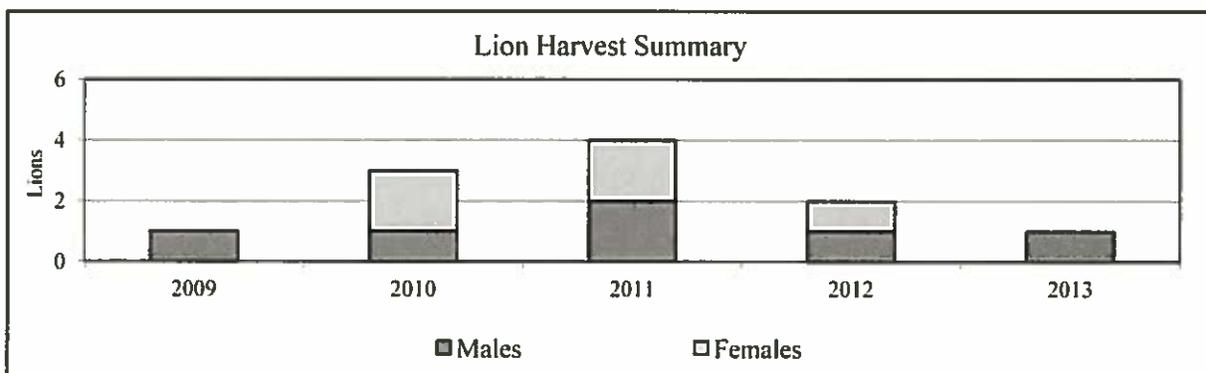
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	0	1	0	0%	NO
2010	1	2	3		0%	NO
2011	2	2	4		0%	NO
2012	1	1	2		0%	NO
2013	1	0	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
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	Units 16AS and 18BS	15	15

Submitted by: _____

Wildlife Manager(s)

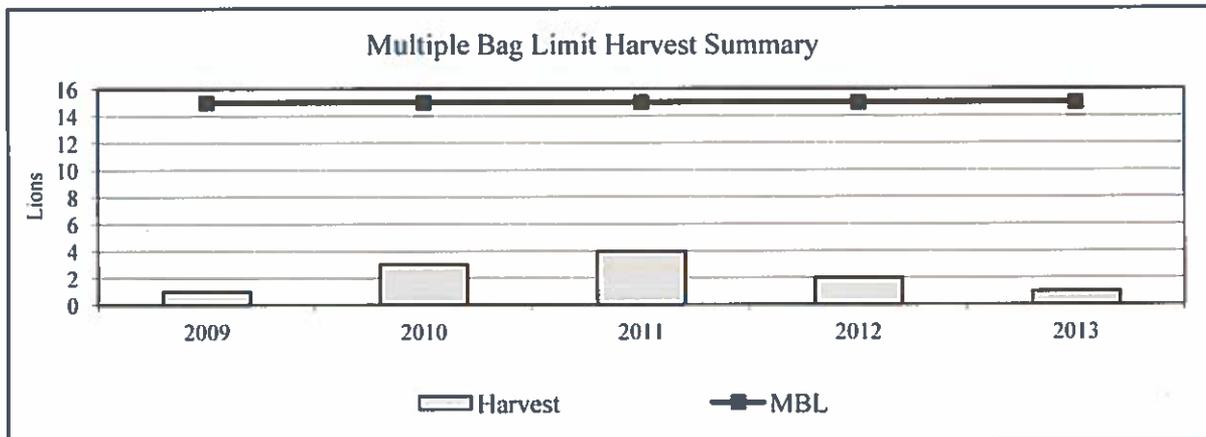
Amendments & Notes:

Game Branch Approval:

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Date:

3/6/14



Multiple Bag Limit Trigger:

* The bighorn sheep herd reaches a self sustaining level.

In 2013, 74 sheep were observed (including 2 groups with over 19 animals); the highest number since surveys began in 2009 (13). There was an increase from the years in the number of Class I & II rams observed with a slight decrease in Class III & IV rams observed (no Class IV rams have been observed). As in 2012, a camera trap was set at Negro Ed tinaja and Hells Half Acre water catchment with a lot of sheep activity captured on the camera. Sheep from both transplants and collared sheep were photographed, as well as several Class III rams. No lion pictures were captured this summer.

Unit 16AS was also surveyed this year. Only 5 sheep were seen in the release area; however 40 more sheep were released in November 2013 after the surveys.

Units 18BS & 16AS were added as a multiple bag limit hunt area to allow the bighorn sheep transplanted to settle in the area. Lion track surveys indicated a high density of lions in the area, so the harvest objective was placed at 15 lions. Sixty-six percent of the collared sheep mortality from the sheep released in December 2011 was attributed to lion predation (4 of 6 mortalities). Lion predation decreased after a mountain lion was harvested in the area. 40 additional sheep were released in Unit 16AS in November 2013 with two mortalities being reported thus far (one lion, one natural). Portion of the bighorn sheep released in Unit 16AS traveled to Unit 44AE, which also has a multiple bag limit area.

Unit(s): 16B

Species: Mountain Lion

Year: 2013/14

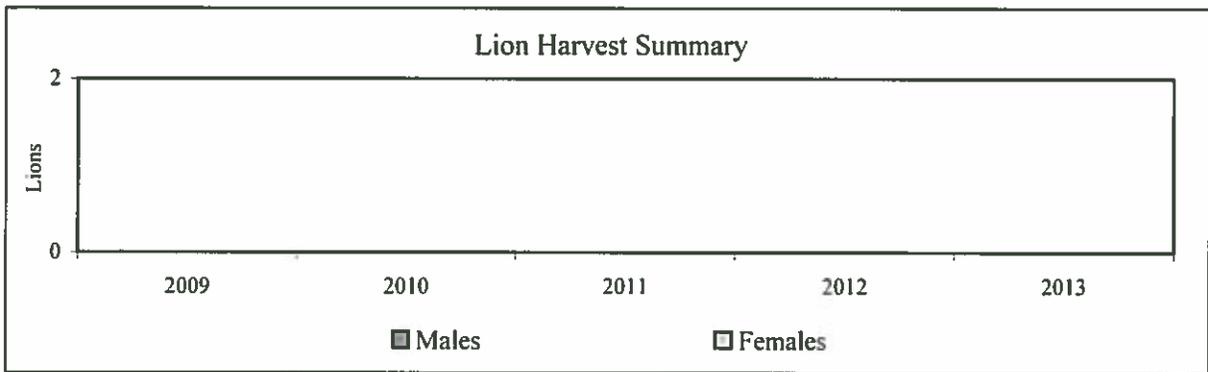
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	0	0	0		#DIV/0!	#DIV/0!
2010	0	0	0		#DIV/0!	#DIV/0!
2011	0	0	0		#DIV/0!	#DIV/0!
2012	0	0	0		#DIV/0!	#DIV/0!
2013	0	0	0		#DIV/0!	#DIV/0!
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2013-June 30, 2014		None	None

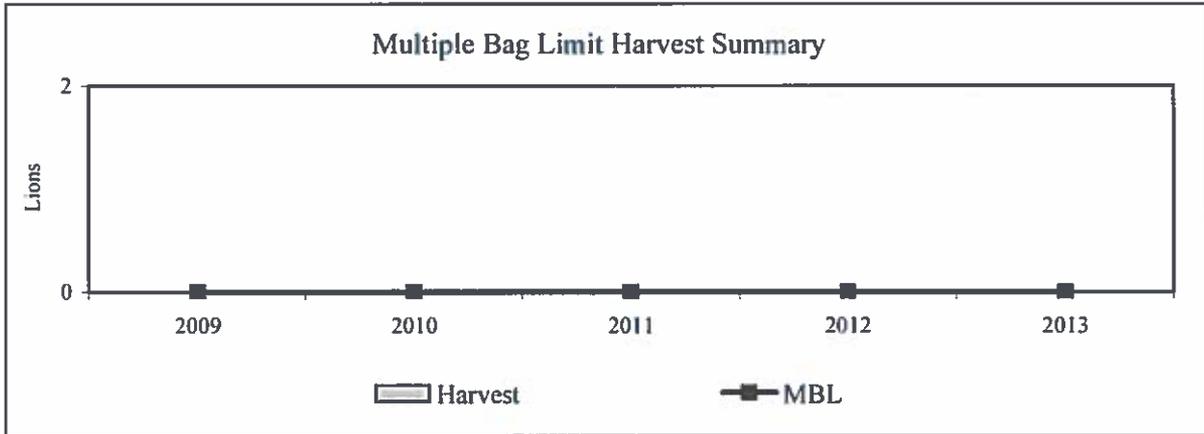
Submitted by: S. EHRET
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/3/14



Regional Notes:

There are no records of any sport killed lions for this hunt unit. We rarely receive reports of lion sightings from the public but these have not been substantiated. No lion sign has been documented in this unit in the last year.

There have been recent sightings (2-3) of a mountain lion in January 2014 in Lake Havasu City (GMU 16A). One of the sightings was investigated with no lion sign being detected.

Unit(s): 20C

Species: Mountain Lion

Year: 2013/14

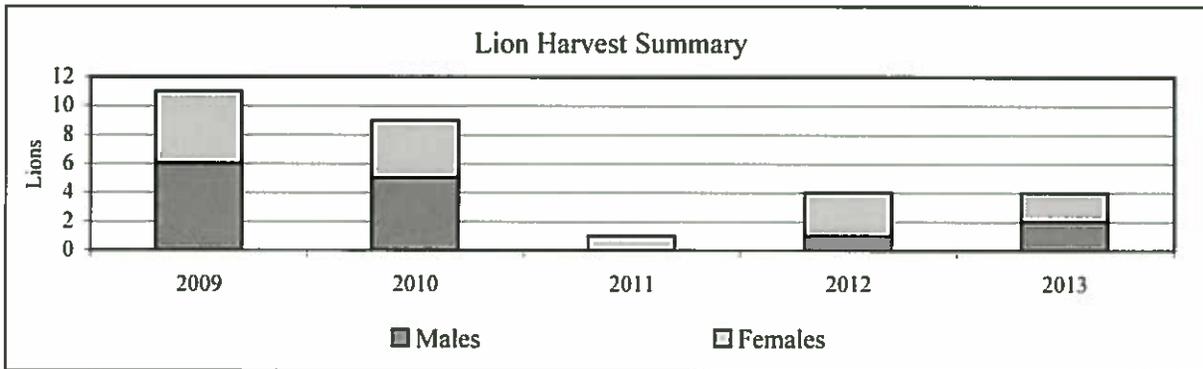
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	6	5	11	2	18%	NO
2010	5	4	9	1	11%	NO
2011	0	1	1	0	0%	NO
2012	1	3	4		0%	NO
2013	2	2	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, 2014- June 30, 2015	GMU 20C	None	None

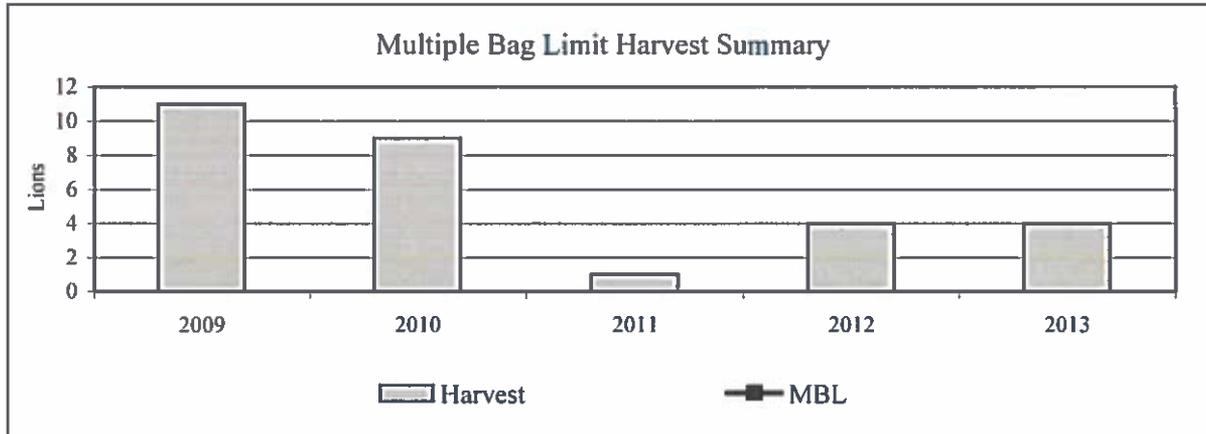
Submitted by: J. Antolik
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Signature]

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges:

Survey Methods

There were no mountain lion targeted surveys conducted. Undoubtedly 20C has a healthy mountain lion population given past hunt data, abundant prey populations and relatively large blocks of unfragmented habitat.

Hunt Data

The 2013 harvest data indicated that 5 lions were harvested; two males, two females and one unclassified. The last unknown sex animal cannot be reported on this recommendation as there are no cells to enter the unknown harvest.

Depredations

There were no depredation events in 2013.

Recommendation

Unit 20C is included in the Standard Lion Management Zone. Harvest trends will be managed to keep adult (≥ 3 year old) female harvest <35% of the total take. Two-year mean adult female harvest has not exceeded 35%. Continuing with the standard season structure is recommended.

Unit(s): 39

Species: Mountain Lion

Year: 2013/14

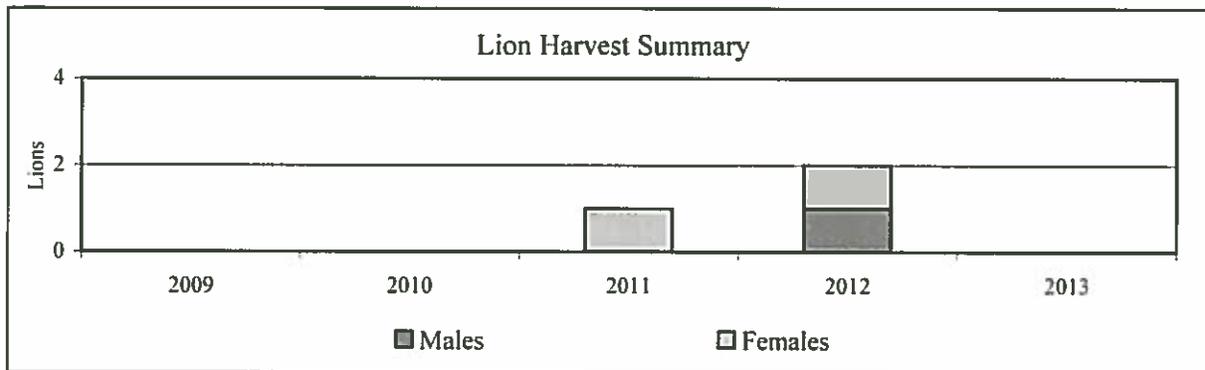
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	0	0	0	0	#DIV/0!	#DIV/0!
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	0	1	1		0%	NO
2012	1	1	2		0%	NO
2013	0	0	0			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

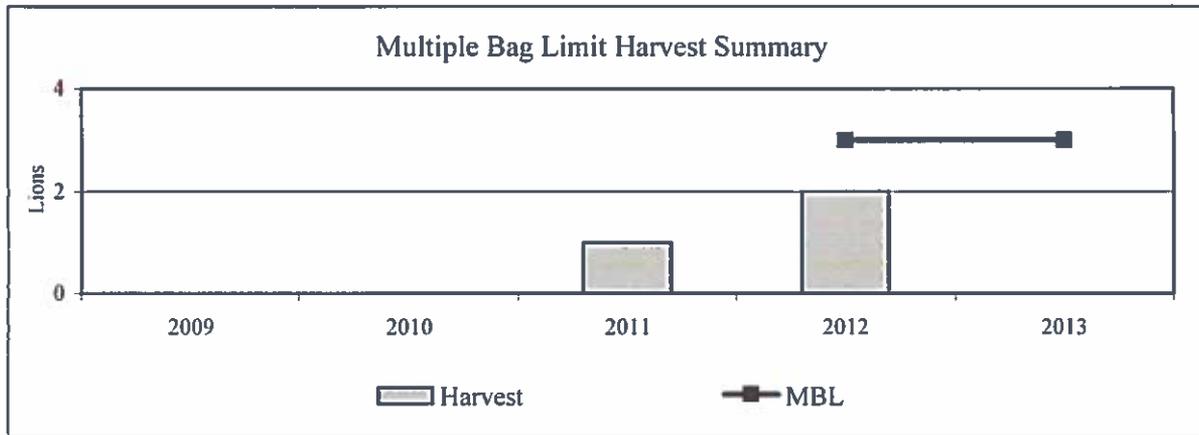
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2014 to June 30, 2015	39	None	None

Submitted by: T. Raspiller
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges:

In GMU 39 a MBL season with daylong hours has been instituted to try and increase the harvest numbers in the unit. Hunter success has remained extremely low with the only lions harvested in recent years coming from opportunistic harvest when hunters are in the field pursuing other game species. Several houndsmen have attempted to run dogs in the farm fields along the Gila River with no success. One particular outfitter that guides clients on Sunset Farms outside of Gila Bend and other surrounding properties has been very outspoken in the recent months claiming that the deer population has been decimated by lions. This particular outfitter claims to have seen as many as 6 different lions in a relatively small area around the farm. I have investigated these claims and found lion sign present on the farm but nothing to support the claims of such a large number.

Brian Jansen also spent a day with me trying to cut fresh lion sign in this area and we were unable to do so. We plan on continuing our effort in the coming months as the roads dry out. I have investigated several kill locations in the farm fields containing smaller prey species and I have determined on each instance that the animal had been killed by a bobcat.

This particular outfitter mentioned above has spent a great deal of time attempting to harvest a lion at night but has been unsuccessful over the last year. In previous years he has had moderate success. He is one of the relatively few sportsmen taking advantage of this opportunity that I am aware of.

Road kill lions have been continually reported every couple years with the most recent one being in the winter of 2012-13 along I-8 near MP 133. This lion appeared to be moving from GMU 39 into GMU 40A.

In the summer of 2013 I received another photo of what appeared to be a mature male lion in the North Maricopa Mountains. This photo was sent in by a hunter who was attempting to harvest the animal with archery equipment. This hunter gave up his pursuit after his blind and camera were stolen by what was believed to be a narcotics "rip-off" crew working in the area.

In the spring of 2013 the contracts branch continued their BLM funded lion movement study by attempting to trap and collar lions across the SDNM. With the assistance of Dave Conrad we were able to trap and collar a female lion in the North Maricopa Mountains. This lion remained in the Maricopas for several days after capture before moving across Rainbow Valley and over the Estrella Mountains. She then remained on the flats east of the Estrellas on the Gila River Indian Community until her collar failed two months later. Throughout the summer she was photographed at a water hole on the GRIC.

Biologists from the department followed up on several kill locations where they documented that she had been feeding on coyotes and skunks. We attempted to re-capture and collar her with dogs over the summer but were unsuccessful. She was found dead this fall in a farm field outside of Maricopa while attempting to re-collar her. An investigation was conducted and it was determined she had been run over by a combine in the field. It was determined that there was no foul play involved.

The trapping effort was started again in December of 2013 after contract branch received more funding from BLM. The traps were temporarily closed in the beginning of February and no new lions have been collared. BLM is working with Contracts Branch to secure further funding for the project. There are also talks of working with biologist with the BMGR to expand this project from the SDNM to their land as well.

Regional Notes:

In 2010 a female lion was collared along the Gila River near Painted Rock Dam. Department biologists were able to confirm 11 kills consisting of 7 mule deer, 2 coyotes, javelina, and 1 raccoon. The lion was then taken through sport harvest in January 2012. A second collared lion that was persisting along the Gila River drowned during the summer of 2012 in the fish farm off of the Agua Caliente Road. In the fall of 2012 there was a second reported sport harvest of a lion in GMU 39. The lion was killed along the Gila River just north of Gila Bend. It was harvested by a hunter during the second general deer hunt. This is the most recent sport harvested lion killed in GMU 39.

This past summer limited photo monitoring was conducted by Contracts Branch in the North Maricopa Mountains. At this time I have not received any data from these cameras. In the summer of 2013 due to time constraints and lack of equipment it was determined photo monitoring would be conducted in GMU 40A instead of GMU 39. During the upcoming summer of 2014 Contracts Branch will continue their limited photo monitoring in GMU 39 as a part of their lion movement study.

Unit(s): 40A

Species: Mountain Lion

Year: 2013/14

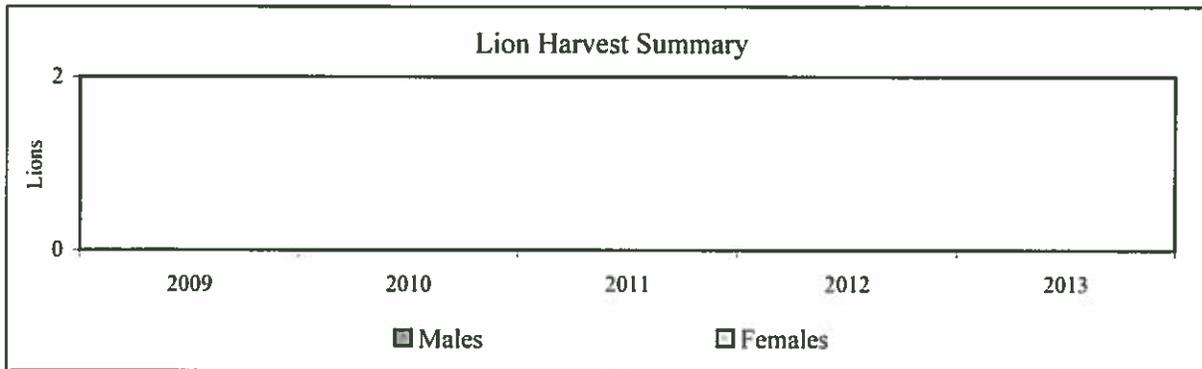
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	0	0	0	0	#DIV/0!	#DIV/0!
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	0	0	0	0	#DIV/0!	#DIV/0!
2012	0	0	0	0	#DIV/0!	#DIV/0!
2013	0	0	0			
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2014 to June 30, 2015	40A	None	None

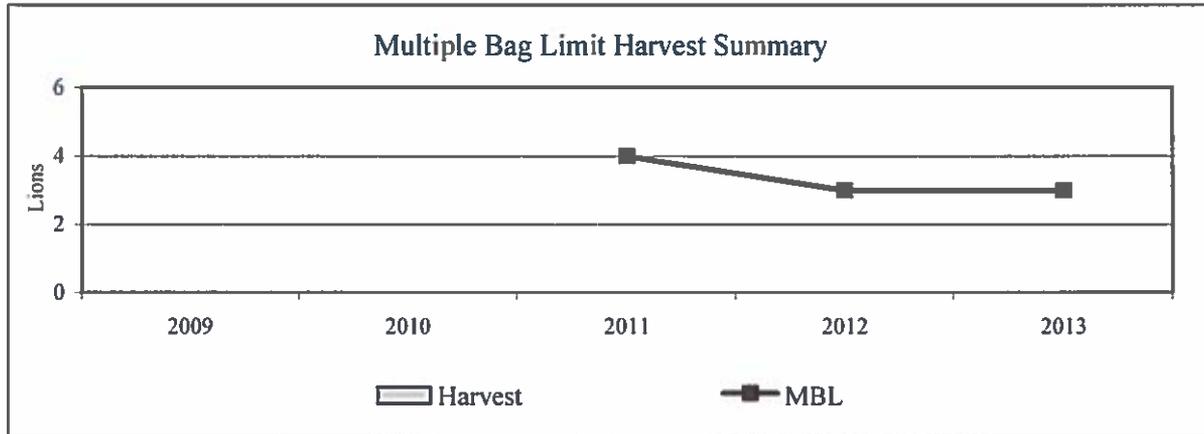
Submitted by: T. Raspiller
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges:

In GMU 40A a MBL hunt was instituted in 2005 and more recently the hunt structure moved to daylong hours. The MBL has not been reached since it was instituted in 2005 and a lion has not been killed by sport harvest since 2008. The most recent sport harvest in 2008 was by a predator caller who had a lion walk into his set. The dry and rugged terrain of the sonoran desert makes it extremely difficult to pursue lions with dogs. I have also spoken to a few houndsmen that would be willing to try and run dogs in this area but are scared to because of the border issues. They fear that their dogs may be injured or killed by smugglers. Currently, I do not believe that anyone is actively taking advantage of the daylong hunting hours in GMU 40A. If sportsmen were out in these areas at night I would have received this information from contacts within the Border Patrol that work these areas 24 hours a day.

Camera monitoring is conducted on the BMGR on an annual basis and this year I expanded the monitoring effort to the Table Top Mountains on the SDNM. This summer lion use was documented on 13 of the 16 waters monitored on the BMGR in GMU 40A including one female with two spotted kittens. There was also a second female with one spotted kitten. In the Table Top Mountains one lone male lion was photographed over the summer. Based on the data from camera monitoring I feel that the lion population in GMU 40A is prospering and I believe earlier population estimates based on predicted densities per square mile do not accurately reflect the population in 40A.

Contracts Branch is continuing their BLM funded Lion Movement Study on the SDNM. In the Spring of 2013 we collared a young male lion in Bender Wash towards the southern end of the SDNM. The collar quit working after approximately two months but throughout this time period the lion did not leave a relatively small area around a stock pond on the TO Reservation. On several different instances he made short loops heading back to the north where he was collared but he would then immediately return back to the south and the area around the stock pond. Contracts Branch coordinated with the TO to visit kill locations on the nation but shortly before their planned visit the Nation canceled saying that it was too dangerous for them to be escorted into the area.

During the spring of 2013 trapping effort sign from a female lion with a kitten was observed just to the south of Javelina Mountain. Just to the east of this location another lion was documented as it walked past a close snare site. In the Table Top Mountains a third lion was documented when he was photographed walking past a closed snare set. The trapping effort was re-initiated in December of 2013 and the snare sets were closed during the first week of February 2014. At this time no new lions have been snared and there are no working collars deployed.

Biologists with BLM are currently working with Contracts Branch to secure more funding for this project. There have also been brief but optimistic conversations with the BMGR to extend this project or develop a similar project on their lands within GMU 40A.

Regional Notes:

Over the past several years, ADOT employees working the I-8 corridor between Gila Bend and Stanfield have reported 4 lion road kills. The most recent of which was documented January 2013 near milepost 133 which is in relatively close proximity to the others. After talking to the motorist and looking at the location it appears as though the lion was heading south from the Maricopa Mountains into GMU 40A.

Previous recommendations have stated that there is an interest in instituting an adaptive management plan in GMU 40A. At this time we are no longer looking at an adaptive management plan in 40A but would like to continue following up on kill locations provided by the Contracts Branch to try and achieve a better understanding of prey base and impacts to other game species. The expansion of this project onto the BMGR will only improve our sample size, provide us with more information and allow managers to make more informed decisions in the future.

Unit(s): 40B

Species: Mountain Lion

Year: 2013/14

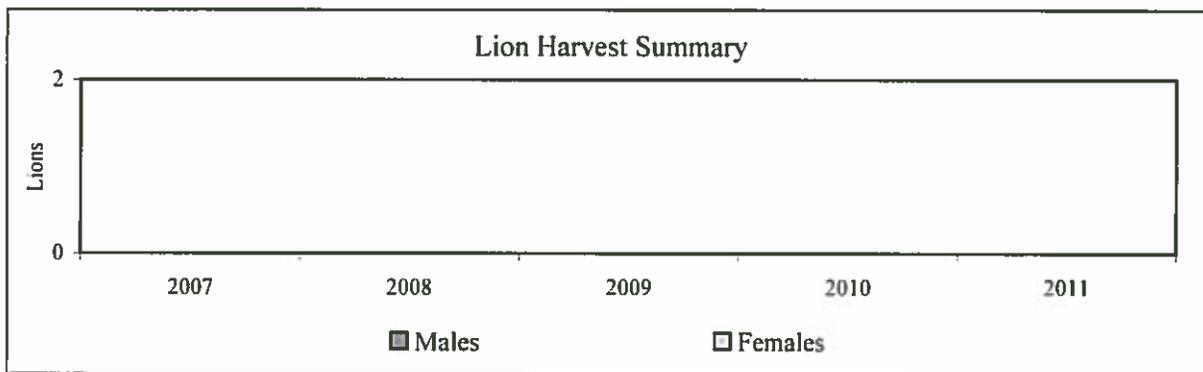
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2007	0	0	0	0	#DIV/0!	#DIV/0!
2008	0	0	0	0	#DIV/0!	#DIV/0!
2009	0	0	0	0	#DIV/0!	#DIV/0!
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	0	0	0			
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014	U-40B	None	None

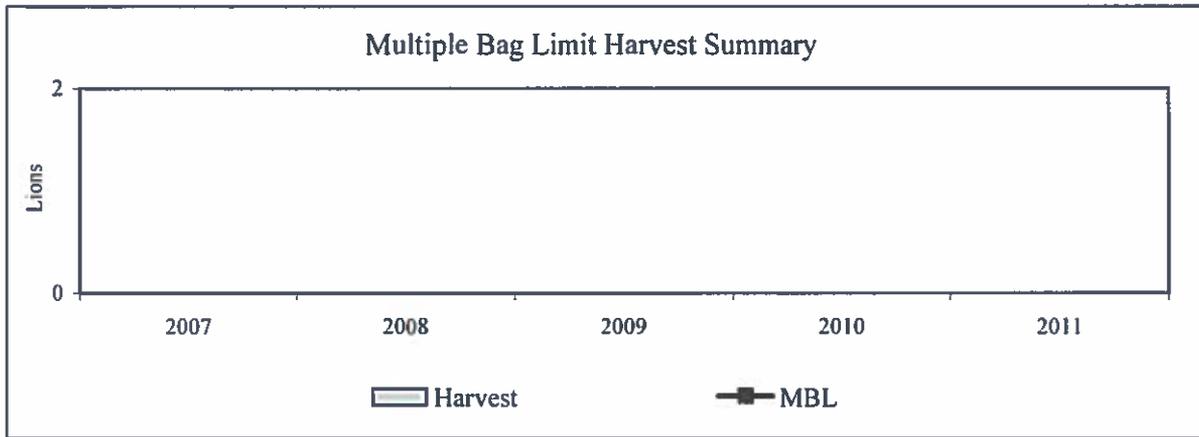
Submitted by: Scott Fischer
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Signature]

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges

Regional Notes:

This unit is managed as two ranges, West and East.

East:

The eastern range extends from Highway 85 on the east side westerly to San Cristobal wash which is just east of the Mohawk Mountains. In this area over the past ten years there have been several sightings of Mountain Lions. Several lion kills are also believed to have occurred in or near this area.

In 1999 there was an additional Pronghorn mortality that was investigated by AZGFD personnel and confirmed that the death was the product of lion predation. This kill was within a mile of the Cabeza Refuge boundary and is believed to be attributed to a lion that was transient.

In 2009 a lion was repeatedly observed on the North Tactical bombing range by the Luke AFB Sonoran Pronghorn monitoring crew. It was found 3 consecutive days in the same area. It is believed, due to this activity, it had killed and was feeding on one of the Pronghorn known to frequent the area.

In 2011 during the November General Deer hunt as well as during the December Archery deer hunt Mountain lion sightings were reported to the department in an area north of the BMGR boundary near Spot Farms.

No known resident lions have been documented in the Eastern half of 40B. The public does not frequent this area due to Military land status, however there are numerous biological activities and military personnel on the ground managing operations daily. It is believed that if a resident lion was present evidence would be apparent and discovered readily. Additionally the deer population in this unit is not sufficient to sustain a resident lion, further strengthening the thought that any confirmed lion in the unit should not stay long before transitioning out to better habitat.

West:

The western portion of this unit stretches from San Cristobal wash on the eastern boundary westerly to Arizona's Western border with California and Mexico.

In the past 20 years there have been four confirmed sightings of a Mountain Lion in the unit.

A trail camera survey was conducted in 2002 at several water tanks in the Tinajas Altas Mountains near the United States / Mexico border. During that camera survey a lion was positively identified while drinking at the southern-most water catchment.

Between that time and 2012 there have been several un-confirmed reports of lions in the unit, all of which have been investigated using various techniques. No tracks or scat has ever been found at the sights of these reports and several cameras have been placed on waters near the reported areas with no successful capture of lion images.

During the summer season of 2012 a sheep tag holder placed cameras at waterholes in the Mohawk Mountains. In August of 2012 at AGFD catchment #864 several pictures were taken of an adult lion while watering. Images were only captured on one night. The camera was at the site from July through September with only the one occurrence at #864. Approximately three weeks prior to this in July there were images collected at Eagle Tank in the Sierra Pinta Mountains of GMU 46B. The lion looks to be the same size as that of the lion at #864 but definitive identification is was not possible via photograph. It is the belief of Region IV Biologists that this is the same lion due to proximity and time.

In December of 2012 a guide for one of the Bighorn Sheep hunters from hunt 6023 (Tinajas Altas) claims to have spotted and glassed a mountain lion for better than 30 minutes during the opening week of the 2012 hunting season. His description and background with mountain lions lends credibility to his report, as does the location being near that of the occurrence that was photographed in 2002.

Similar to the occurrence at catchment #864, a sheep tag holder in for 2013 Mohawk/Copper 40B sub-unit hunt captured an image of an adult lion at South Copper tank in the Copper Mountains. Several images of the lion were captured on the trail camera on the night of December 10, 2013. When AZGFD personnel investigated this no tracks were found however several scrapes were discovered that were attributed to the lion. It should be mentioned that this was likely the same lion that several months prior killed a class IV ram near Buck tank in GMU 46B which is approximately 5 miles from South Copper tank.

It is very unlikely a lion will remain in the unit due to lack of a primary prey source, however occurrences, sightings, and kills seem to be more frequent in the past three years suggesting possible residency.

Even with the belief that this lion is transitory in nature any progress concerning the potential presence of a lion in this area will be taken seriously. Monitoring measures are in place to ensure that any affects this lion may cause to the sheep population of the area will be noticed as soon as possible. This will allow the Department to manage this predator in an area that is non-typical historically.

History:

Lion harvest was open in this unit prior to 1990, at that time it was closed due to issues with the 'Yuma Puma'. In 1997 the unit was added to a combined harvest objective group with units 16B, 41, 43A, 43B, and 44B. In 2007 these same units were reverted back to the statewide objective of 1 lion per calendar year per hunter. Harvest reporting shows that there has never been a lion taken in the western portion of 40B. Of note is that in 1982 a lion was harvested in the eastern portion of 40B in the crater range. Currently this unit falls under the Multiple Bag Limit hunt structure.

Unit(s): 41

Species: Mountain Lion

Year: 2013/14

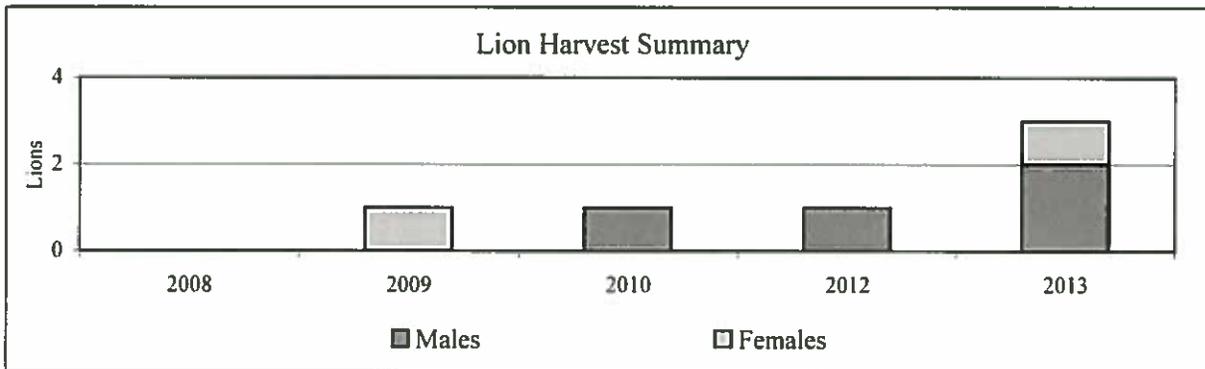
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008			0		#DIV/0!	#DIV/0!
2009		1	1		0%	NO
2010	1		1		0%	NO
2012	1		1		0%	NO
2013	2	1	3			
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
Liberal	July 1, 2013 - June 30, 2014	41	None	None

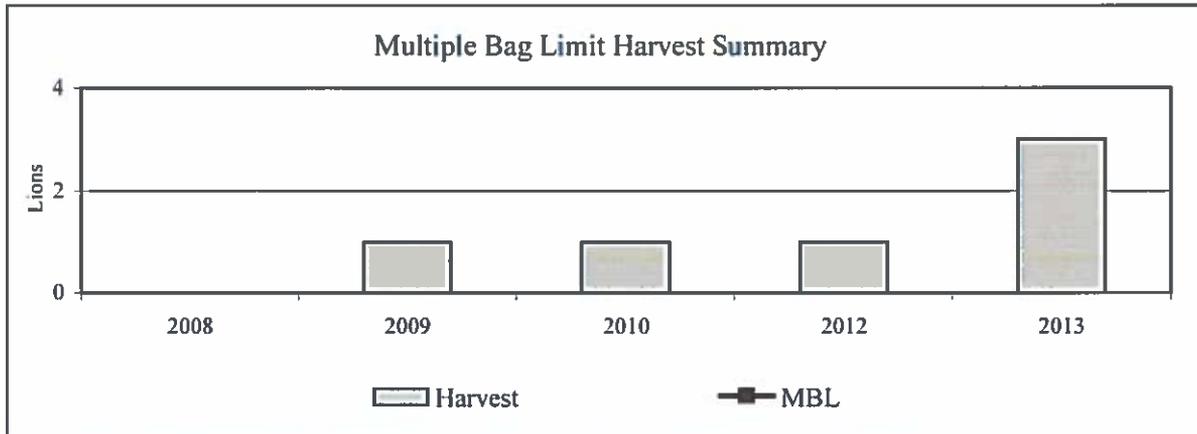
Submitted by: D. UROQUIDEZ
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/3/14



Surveys for lions were not completed within the region. The region however accumulates data from sightings, lion signs, lion kills, and road kills reported to the department.

In 2013, sportsmen hunters did not harvest any lions.

The 2012-2014 Hunt Guidelines created a "Minimal Occurrence Lion Management Zone" to include GMU 41. Region IV initiated an Adaptive Lion Management Plan too include GMU 41.

GMU 41 is in the Kofa Mountains Complex Predation Management Plan area. Biologists are continuing to capture lions and collar them as part of a monitoring plan. The plan monitors their movements and records their diets. The plan includes lethally removing offending lions that have killed at least 2 bighorn sheep within a 6 month period.

2013, 3 lions were captured and collared on the Kofa National Wildlife Refuge, Kofa NWR. Within a 4 month period, all 3 lions were lethally removed as offending lions in GMU 41 in 2013. A total of 10 bighorn sheep were documented killed within the Kofa Mountains Complex Predation Management Plan area. One male lion was diverse and opportunistic based on reported kills of mule deer, bighorn sheep, badgers, and coyotes. The other 2 lions had specialized on bighorn sheep regardless of age and gender. In addition, 4 of these 10 bighorn sheep were killed in GMU 41.

2014, AGFD lion biologist has captured and collared 2 lions on the Kofa NWR. To date, one lion has been classified as an offending lion. However no action has been taken because the lion is accompanied by a juvenile lion, dependent on its mother for survival.

The lions have been covering large tracts of land across Yuma Proving Ground, Kofa FWS Refuge, and BLM. Their diets consist of mule deer, bighorn sheep, badgers, and coyotes.

I recommend that unit 41 continue to remain part of the "Minimal Occurrence Lion Management Zone" with a Bag Limit of 3, with "Daylong Shooting Hours".

Unit(s): 42

Species: Mountain Lion

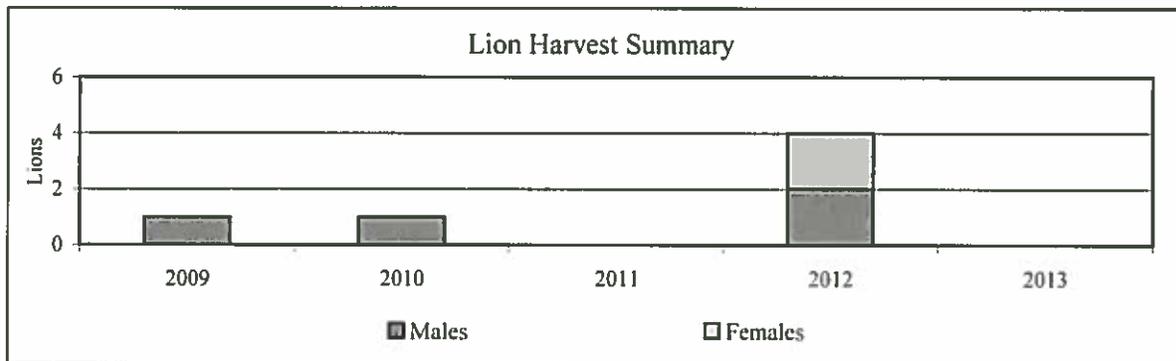
Year: 2013/14

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	0	1		0%	NO
2010	1	0	1		0%	NO
2011	0	0	0		#DIV/0!	#DIV/0!
2012	2	2	4		0%	NO
2013	0	0	0			
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
Liberal	July 1, 2014 - June 30, 2015	42 Unitwide (daylong)	None	None

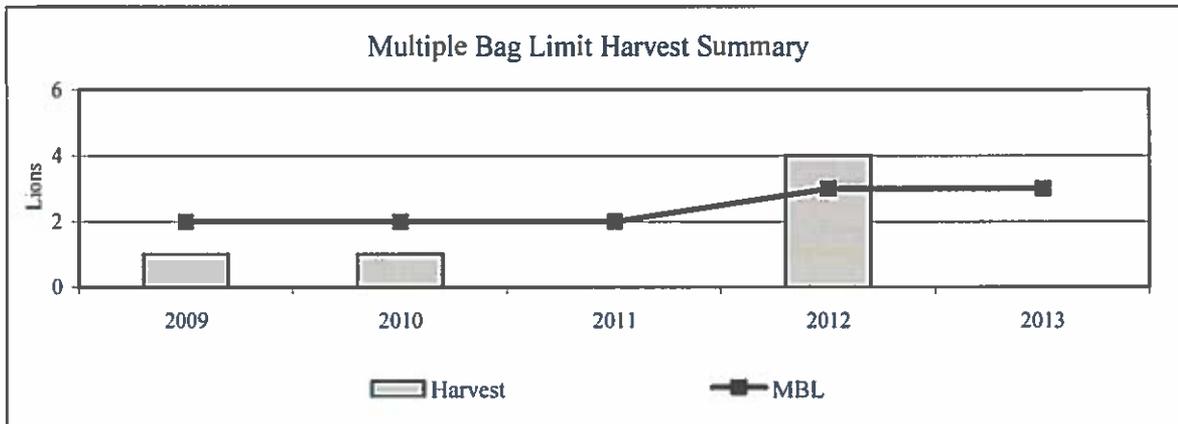
Submitted by: Craig Heath
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges:

*list items of management significance

*

*

Regional Notes:

For the past seven years the GMU 42 has included a multi-bag limit harvest structure to the hunt. Few hunters have attempted to take advantage of this hunt and none have harvested a lion in the multi-unit area. The hot, dry conditions and numerous cacti patches limit the number of hunters and hunting dogs that enter the unit.

The 2012-2014 Hunt Guidelines created a "Minimal Occurrence Lion Management Zone" which included GMU 42. This hunt structure allows for liberal harvest objectives for lions to limit their predation on the bighorn sheep translocation efforts in the Big Horn and Belmont Mountains. A total of 49 bighorn sheep have been released into the range over the last eight years. Forty Eight percent of the known transplanted sheep mortalities have been attributed to lion kills (13/27).

Region IV initiated an Adaptive Lion Management Plan in 2011 for several game management units including 42. This plan has included radio collaring lions in the unit and gathering data on the habits of the lions. Lion predation on the translocated bighorn sheep populations in the units is part of the plan as well. Lions found killing bighorn sheep in these areas are removed from the area. To date, two lions have been removed from unit 42 as part of this study (one male/one female) and are included in the harvest summary above.

One collared lion is active in GMU 42. It is an adult female lion that has mostly stayed in the Vulture Mountains south of Wickenburg. This lion was collared in April, 2013. The collar is set to provide 4 locations per day however there are often many daily locations missing (unable to download to satellite).

The daily lion locations are tracked over time and any clusters of locations in one area are evaluated with a ground survey to look for potential kill sites. Thirty kill sites have been studied for this lion from April 22, 2013 thru January 19, 2014 . These kill sites have included the following prey items:

27 Mule Deer (19 fawns, 8 adult)

2 Coyote (adult)

1 Javelina (adult)

Many kill sites are likely missed due to the missing collar check-in data as well as the inability of smaller prey items being detected (limited time at kill).

Efforts to capture and collar additional mountain lions in GMU 42 will continue as part of the Adaptive Lion Management Plan.

It is recommended that unit 42 continue to remain part of the "Minimal Occurrence Lion Management Zone" with a Bag Limit of 3, with "Daylong Shooting Hours".

Unit(s): 43A

Species: Mountain Lion

Year: 2013/14

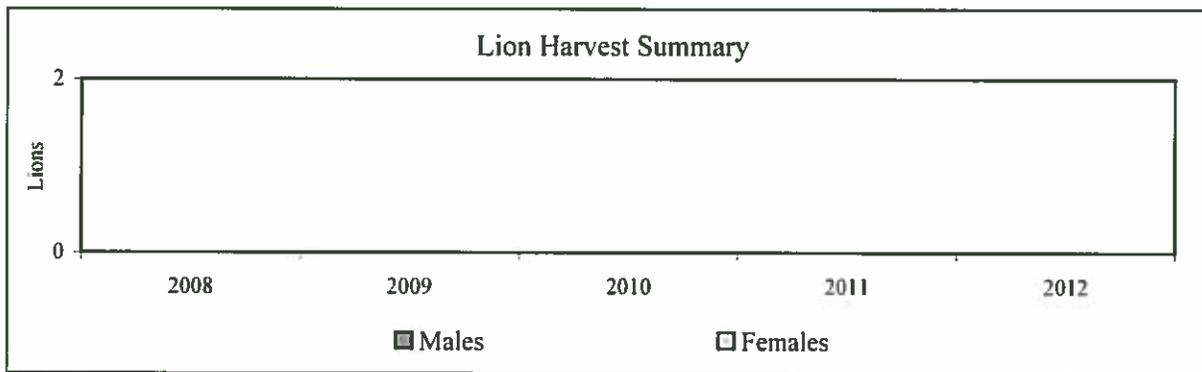
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008			0		#DIV/0!	#DIV/0!
2009			0		#DIV/0!	#DIV/0!
2010			0		#DIV/0!	#DIV/0!
2011			0		#DIV/0!	#DIV/0!
2012			0			
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

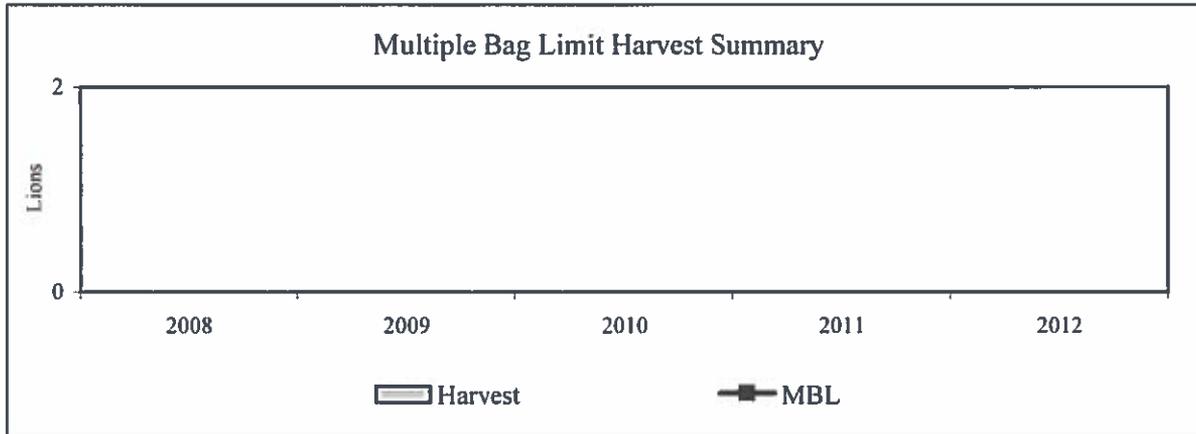
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2014- June 30, 2015		None	None

Submitted by: C. Shanley
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: *C. Shanley*

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges:

In the last five year there has been no record of a mountain lion being harvested in GMU 43A.

It should be assumed that mountain lions are using this unit due to availability of prey and proximity to the Colorado River and many other water and prey sources. There have been several credible reports of mountain lion sightings around Quartzsite and Cibola this past year, but none of those could be substantiated.

It is recommended that 43A should continue to be managed under the statewide ^{liberal} standard season and bag limit. (multiple bag limit of 3 with Daylong season)

Unit(s): U43B

Species: Mountain Lion

Year: 2013/14

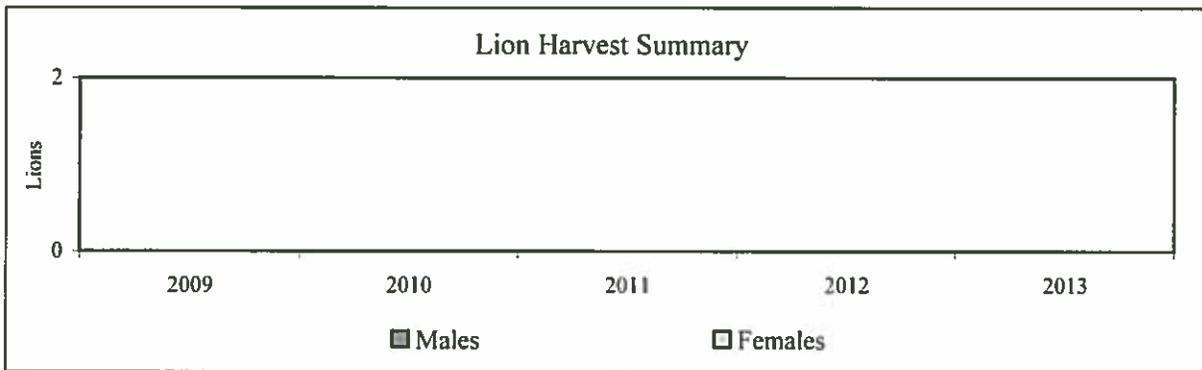
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	0	0	0	0	#DIV/0!	#DIV/0!
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	0	0	0	0	#DIV/0!	#DIV/0!
2012	0	0	0	0	#DIV/0!	#DIV/0!
2013	0	0	0			
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

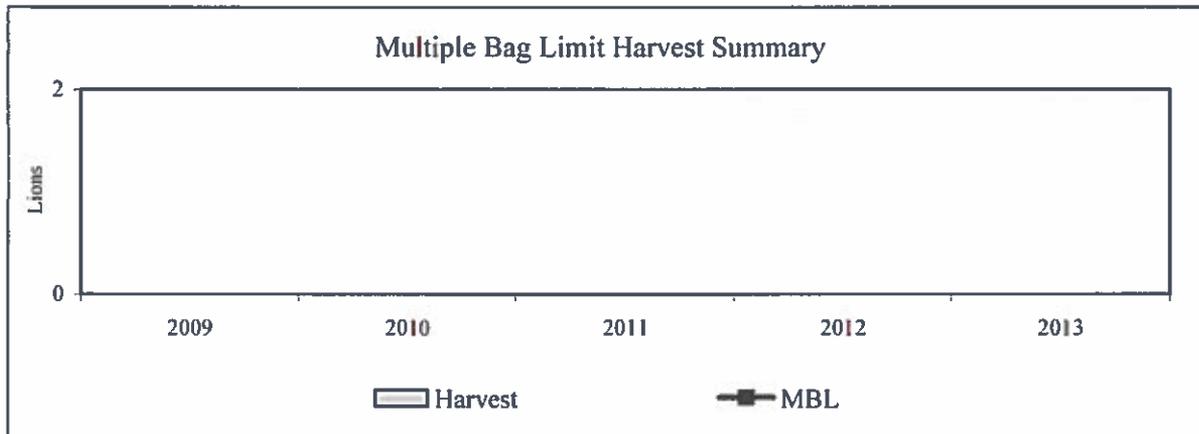
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014		None	None

Submitted by: R. Myers
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges:

Mountain lions are occasionally present in U43B; however, they are not currently believed to be a major contributing factor to sheep mortality. In the summer 2011, a mountain lion was photographed on catchment 534 in close proximity to the Chocolate Mountains. Three additional cameras were deployed at Trigo, Hunts and Hummingbird sheep potholes located in the Trigo Mountains for the Summer and early Fall of 2013 and no lions were photographed at these water developments.

December 2012, a sheep hunter reported a lion caused sheep mortality in the Red Cloud Mine area of U43B. The Department was able to investigate this report. There was not sufficient evidence to conclusively say that a lion was the manner of death or not.

In October 2012, AGFD Research Branch completed a camera study in U43A/B involving 50 game cameras that were placed in 16 mesquite bosque areas of YPG (Cibola and Kofa Range). No lions were photographed in U43B on these cameras.

Additionally, there are several collared sheep in U43A/B whose movements and mortality are being monitored. There were not any reported lion caused mortalities of big horn sheep due to lions in 2013.

Hunter Sport

harvest of mountain lions is allowed on YPG; however, season dates and access are restricted by the YPG hunting program (September-February). Additionally, the wildlife manager has not encountered many hunters attempting to harvest lions in U43B. For the last five year period, there have been no reported mountain lion kills in GMU 43B. Mountain hunting in U43B tends to be other hunters who carry a lion tag "in case" they see a lion. There is not a large amount of effort directed towards targeted lion hunting. Lion hunting opportunities in U43B are limited by military access and warmer/dryer habitat conditions.

Regional Notes:

Unit(s): 44A

Species: Mountain Lion

Year: 2013/14

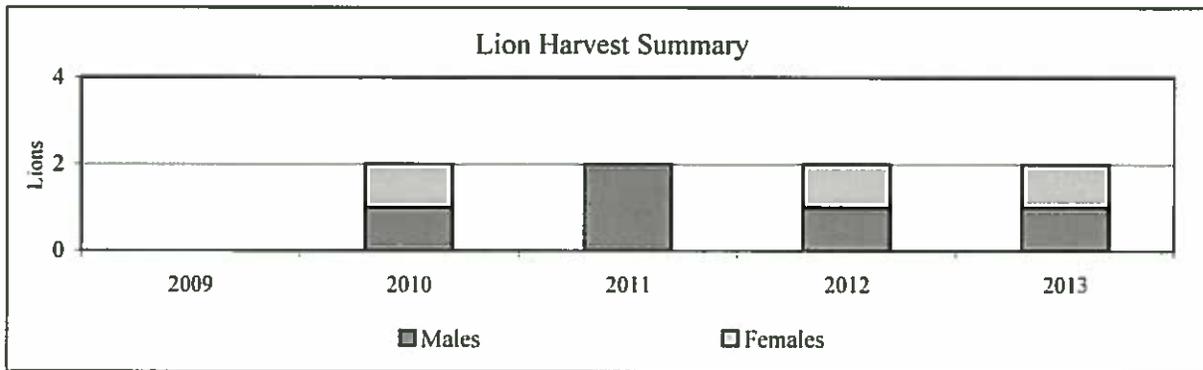
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	0	0	0	N/A	#VALUE!	#VALUE!
2010	1	1	2	0	0%	NO
2011	2	0	2	N/A	#VALUE!	#VALUE!
2012	1	1	2	N/A	#VALUE!	#VALUE!
2013	1	1	2			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

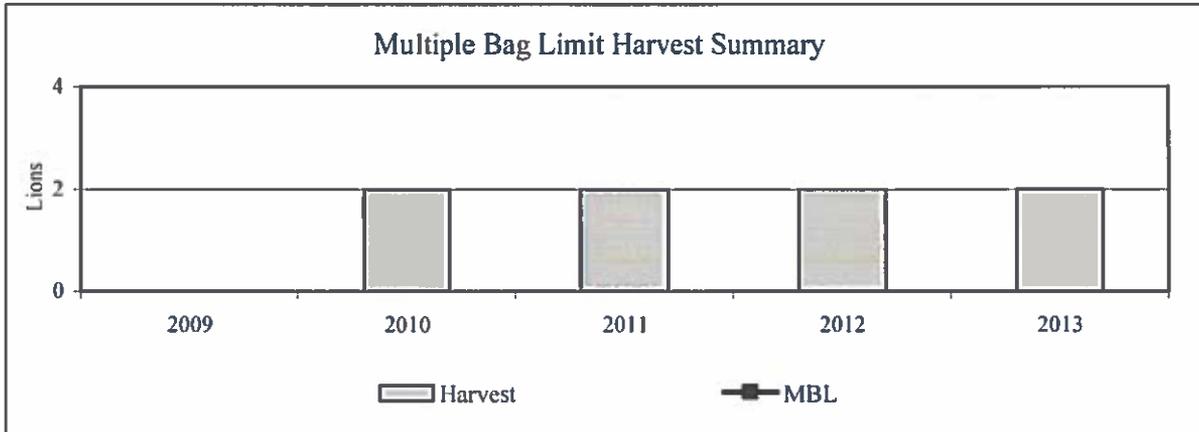
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2012 - June 30, 2013	Unit 44A	None	None

Submitted by: Kohnke, Antolik
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: *[Signature]* Date: 3/3/14

44A



Significant Management Issues, Opportunities or Challenges:

Survey Notes/Occurrence Records

-No mountain lions were observed during BHS or deer aerial surveys this year.

A lion was documented on a Game and Fish camera in June 2013, and also in October 2013 on the sheep hunter's camera, at Jumpoff catchment on Buckskin Mesa by Parker. No lions were observed at five other sheep waters in 44A that the Region had trail cameras on during the summer.

Seven mountain lions have been captured and collared in unit 44A under the Adaptive Lion Management Plan (ALMP):

RF04 - Collared 3/26/12, currently collared (re-collared 2-22-13)

RF05 - Collared 7/9/12, died of natural causes, about 1-21-13)

RM03 - Collared 8/5/12, lethally removed 9/20/12 GMU 42

RF06 - Collared 8/13/12, currently collared (as of 12/31/12), collar not functioning

RM04 - Collared 8/20/12, lethally removed 1-22-13 GMU 42

RF09 - Collared 4/9/13, currently collared

RM06 - Collared 4/9/13, currently collared GMU 16A and 44A has killed BHS in 16A

-Population information for mountain lions in this habitat type is scarce and population estimating techniques are limited. One mapping strategy categorized mountain lion habitat using designations of sparse, low and medium habitat. The densities developed for each category were ranges, but the low end of the range seems most realistic in Region IV.

Sparse habitat 0.001 lions per square mile

Low density habitat 0.005 lions per square mile

Medium density habitat 0.01 lions per square mile

GMU 44A contains a total of 2363 square miles of habitat; 400.4 sq mi of sparse mountain lion habitat, 1482 sq mi of low density mountain lion habitat, and 480.3 sq mi of medium density mountain lion habitat resulting in an estimated population of 12.6 mountain lions.

Regional Notes:

The collars are Globalstar satellite GPS collars and report to a website on four hour intervals. A cluster of two to three locations usually means a smaller prey item such as coyote, fawn, or javelina. Larger clusters over several days usually means a full size deer or sheep. Clusters are located as soon as possible after the collared mountain lion leaves. So far we have documented prey items of coyotes, bobcats, gray fox, bovine calf, mule deer fawns, bighorn sheep lamb, mule deer does, mature mule deer bucks, bighorn sheep ram, and bighorn sheepewes as well as small animals including tortoise, wood peckers, and skunks.

Several technical difficulties with the collars have been encountered. Several collars have not worked since they were placed on the animal and others work periodically and/or infrequently. Infrequent GPS fixes makes it extremely difficult to identify kill sites. One mountain lion will likely be recollared for a third time, another mountain lion was recollared twice. Another issue is not all locations are uploaded to the website, but are only known after the collar is sent back to Northstar. RF09 has gone over two weeks without a location.

Hunt/Mortality

This unit has been open for the harvest of mountain lion, but only recently has any substantial harvest occurred. In 2012 two mountain lions; one male and one female were sport harvested. In 2013 another two mountain lions; also one male and one female were sport harvested. RM04 was lethally removed as part of the ALMP in 2013. In the last seven years ten mountain lions were reported as sport harvested in 44A.

Recommendation

44A is recommended for a unit wide daylong season with an annual bag limit of three mountain lions.

44A is included in the Minimal Occurrence Lion Management Zone. Minimal Occurrence Lion Management Zones will be managed for extremely low mountain lion densities. It is hoped that the setting of a multiple bag with a harvest objective greater than one will encourage an increase in the sport take of mountain lions in this area. Multiple bag limit harvest objectives are utilized in specific areas where prey populations are below management objectives and mountain lion predation is implicated as a contributing factor or where translocated populations are being limited by mountain lion predations. Concurrent with the ALMP a temporary reduction in mountain lion numbers in 44A is expected to reduce predation on bighorn sheep and help them to recover to a self-sustaining population level. The current harvest objective should be discontinued or modified as bighorn sheep populations in 44A (Harcuvar, Harquahala, Black and Buckskin) reach their self-sustaining population threshold identified in the ALMP.

Most of the unit is bighorn sheep habitat and has been the location for a number of translocations attempting to establish/enhance bighorn sheep populations. Recently the ALMP was approved with the goal of increasing knowledge of mountain lion predation events and removing offending mountain lions while bighorn sheep populations are below management objectives. From 1994 to 2001, one hundred and eleven desert bighorn sheep have been transplanted into four different

locations in the Granite Wash and Harcuvar Mountains. Of these 111 sheep 72 were fitted with VHF radio telemetry collars and were monitored through January of 2006. Mortality signals were located as soon as possible after each telemetry flight. Forty-nine mortalities were indicated but one was not recovered. Of the 48 documented mortalities, 23 were caused by mountain lion, 15 were undetermined but not obvious predation, five were capture related, four had evidence of bad sinusitis, one from falling and one drowned.

In 2000, twenty-five desert bighorn sheep were transplanted into the Harquahala Mountains. Of these 25 sheep, 13 were fitted with VHF radio telemetry collars and were monitored through January of 2006. Mortality signals were located as soon as possible after each telemetry flight. Nine mortalities were documented and three radio collars either malfunctioned or their battery went dead. Of the nine documented mortalities, eight were caused by mountain lion and the other one appeared to be malnutrition.

In 2011, twenty desert bighorn sheep were transplanted to People's Canyon in unit 16A. Soon after the release the sheep moved into the Black Mountains in unit 44A. Of these 20 sheep, nine were fitted with GPS collars and are currently being monitored. Mortality events were investigated as soon as possible and often resulted in observing mountain lions on the fresh carcass. To date, five mortalities have been investigated and all five were caused by mountain lion.

Of these 62 documented desert bighorn sheep mortalities investigated 36 (58%) were caused by mountain lion predation. These predations occurred throughout the habitat from low creosote-paloverde to chaparral-scrub type. Mountain lion predations have occurred in the Harquahalas, Little Harquahalas, Granite Wash, Harcuvar, East Harcuvar/Robson' Block and Black Mountains. Recent research under the ALMP has shown mountain lions moving between the Black, Harcuvar, Granite Wash, Harquahalas, Divide (GMU 42) and Bighorn Mountain (GMU 42) ranges.

Unit(s): 44B

Species: Mountain Lion

Year: 2013/14

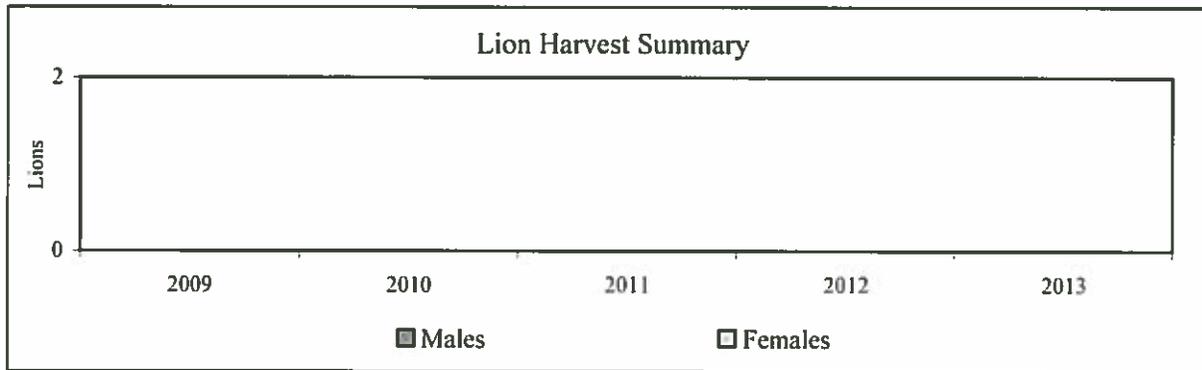
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	0	0	0	0	#DIV/0!	#DIV/0!
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	0	0	0	0	#DIV/0!	#DIV/0!
2012	0	0	0	0	#DIV/0!	#DIV/0!
2013	0	0	0			
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

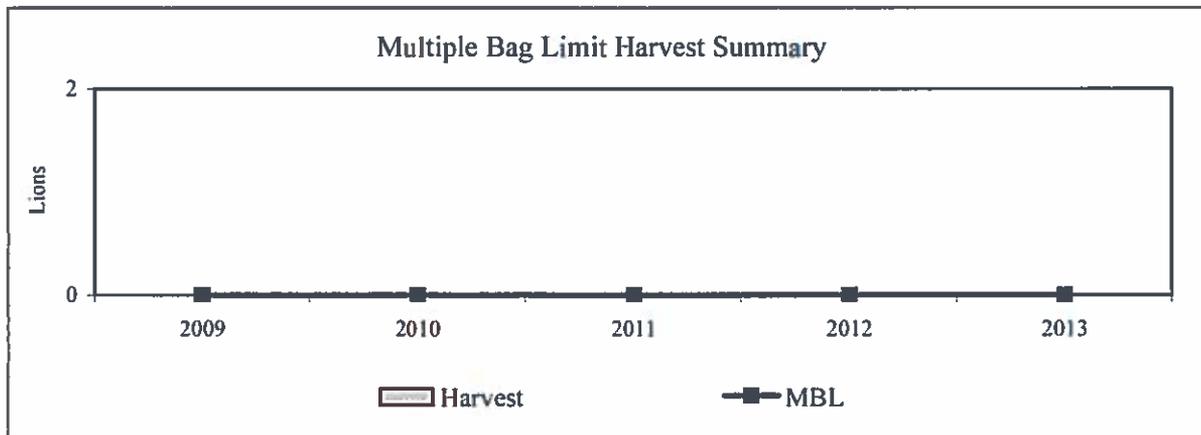
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2014 - June 30, 2015	44B	None	None

Submitted by: D. PFLEGER
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: *[Signature]*

Date: 3/3/14



Significant Management Issues, Opportunities or Challenges:

There has been no reported sport harvest of Mountain Lion in unit 44B in the past 5 years. Also of note, three sportsmen placed trail cameras at all of the major water sources in the plomosas Mountains for 6 months (June-Nov) during the summer/fall of 2013. During that time there was no documentation of lions at any of the water developments. AZGFDs work with collared lions in adjacent units did not show much if any use of the available habitat in 44B either.

Regional Notes:

Unit 44B is part of the Adaptive Lion Management Plan (ALMP) and efforts by Department staff are currently underway to monitor lion activity.

Unsubstantiated reports from residents in the communities of Bouse, Parker, Brenda and Quartzsite occur 2-3 times per year.

Recommendation: Liberal Season, (No Change)

Unit(s): 28 Species: Mountain Lion

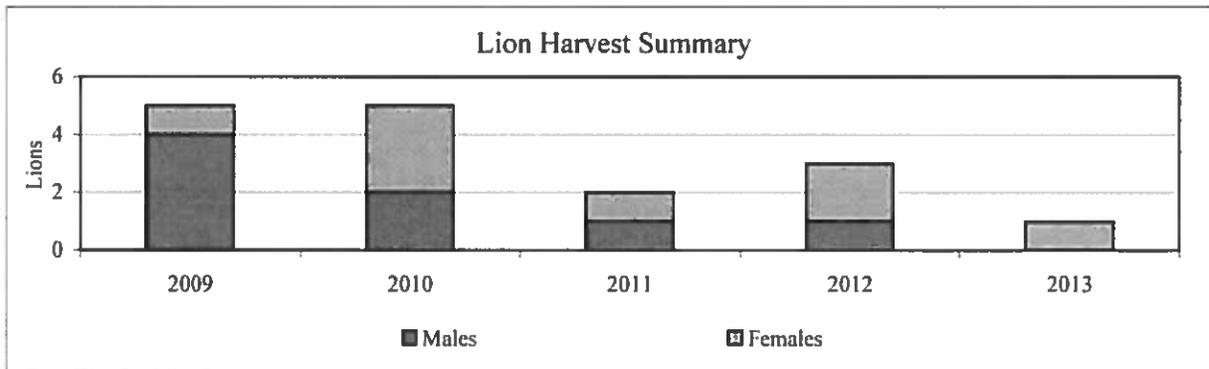
Year: 2013-14

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	4	1	5	1	20%	NO
2010	2	3	5	0	0%	NO
2011	1	1	2	0	0%	NO
2012	1	2	3		0%	NO
2013	0	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, 2014 - June 30, 2015		None	None
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	Unit 28 South of Highway 70	8	None

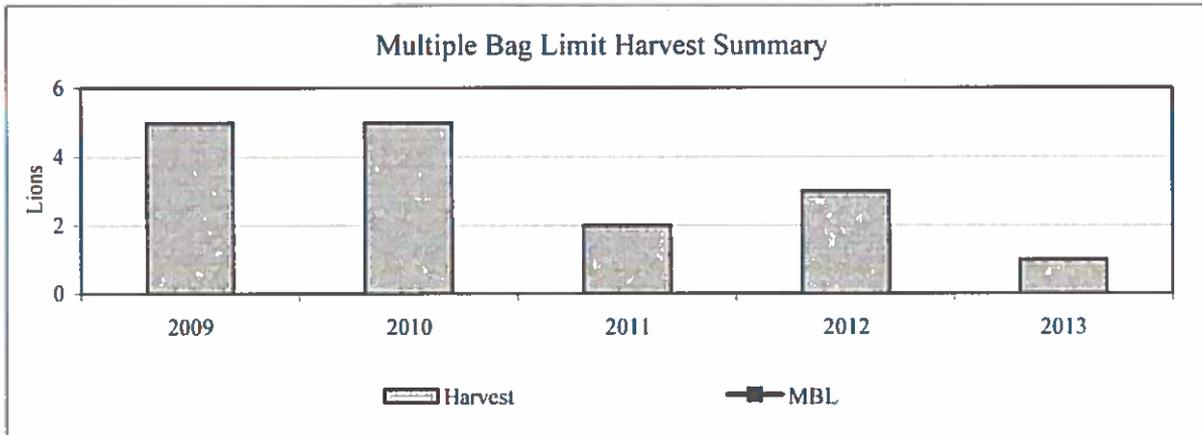
Submitted by: Matt Peltó
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/17/14



Significant Management Issues, Opportunities or Challenges:

The area proposed for the multiple bag limit is the southeastern corner of Unit 28. This area is home to a small population of desert bighorn sheep that was transplanted in 1986 and is currently estimated to be about 36+ animals. The sheep population grew to a high population of 64-96 animals during the years 1992-1994 and the sheep numbers have decreased since then. Most of the sheep are found in or near the Peloncillo Wilderness Area.

There has been a multiple bag limit for lions in this area in the past with the MBL target being 28 lions one year. I believe the desert bighorn sheep population would benefit from the re-introduction of the multiple bag limit.

An example of the number of lions in the area can be found through depredation reports. Unit 28 had 1 sport harvest and 13 depredation harvest lions during 2013. These harvest numbers are below the 5-year average of 4 for sport harvest and above the 10-year average of 11 depredation harvested lions. In 2013 only one unit (Unit 31 with 14) had a higher depredation harvest than Unit 28. The depredation harvest in Unit 28 suggests that there is additional opportunity for sport harvest.

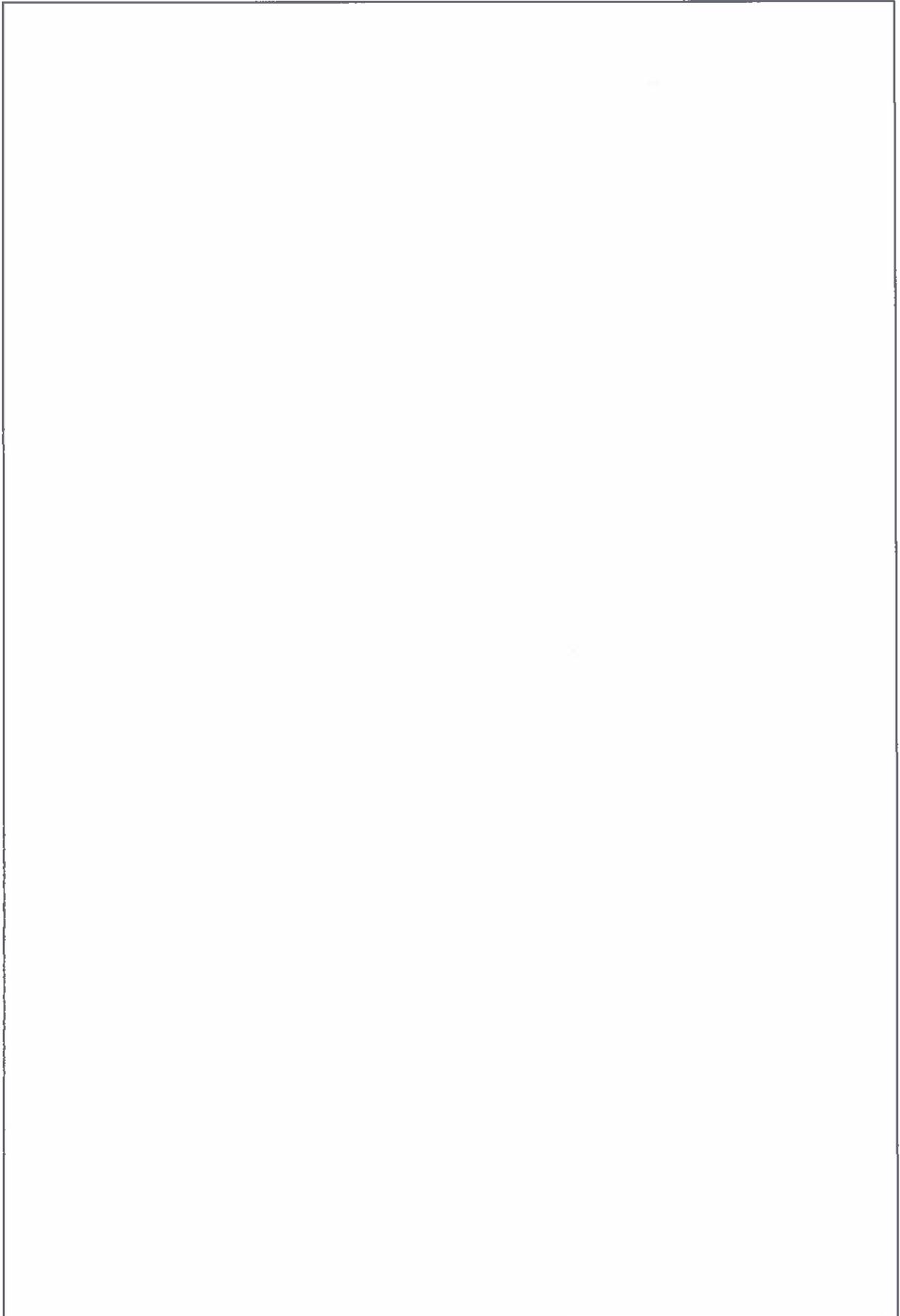
In 2012 two trail cameras were set up in this area in an attempt to capture data on desert bighorn sheep. One of these cameras has captured photos of several lions in sheep habitat. The 2012 sheep hunter reporting seeing a lion on Orange Butte and reported getting several trail camera pictures of a lion in Midway Canyon. All of these reports and trail camera photos have come from the relatively small area surrounding the desert bighorn sheep population.

It is my recommendation that a multiple bag limit for mountain lion be continued in Unit 28 south of highway 70 with a MBL target of 8 Mtn Lions. The MBL hunt will be in addition to the standard Mtn Lion hunt in the remainder of Unit 28.

The MBL will not be continued indefinitely, it is seen as a temporary management action to increase the bighorn sheep population. However, we do envision keeping the structure in place for a minimum of 3 years (through the 2016 bighorn sheep survey) to properly assess the effectiveness of the recommended MBL structure. The following management objectives will then 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 are not met after this MBL has been in place for a minimum of 3 years, then the MBL will be discontinued.



Unit(s): 31/32

Species: Mountain Lion

Year: 2013/14

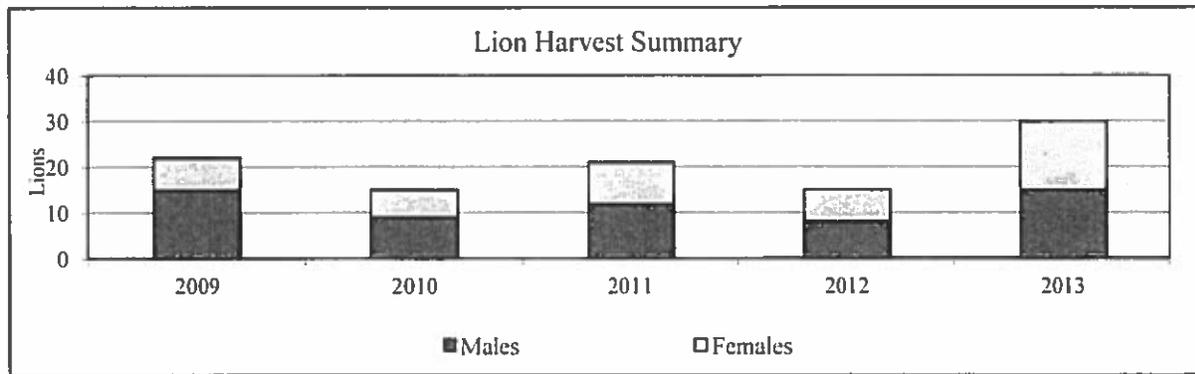
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	15	7	22	7	32%	NO
2010	9	6	15	3	20%	NO
2011	12	9	21	6	29%	NO
2012	8	7	15	4	27%	NO
2013	15	15	30			
2-Year Mean					28%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

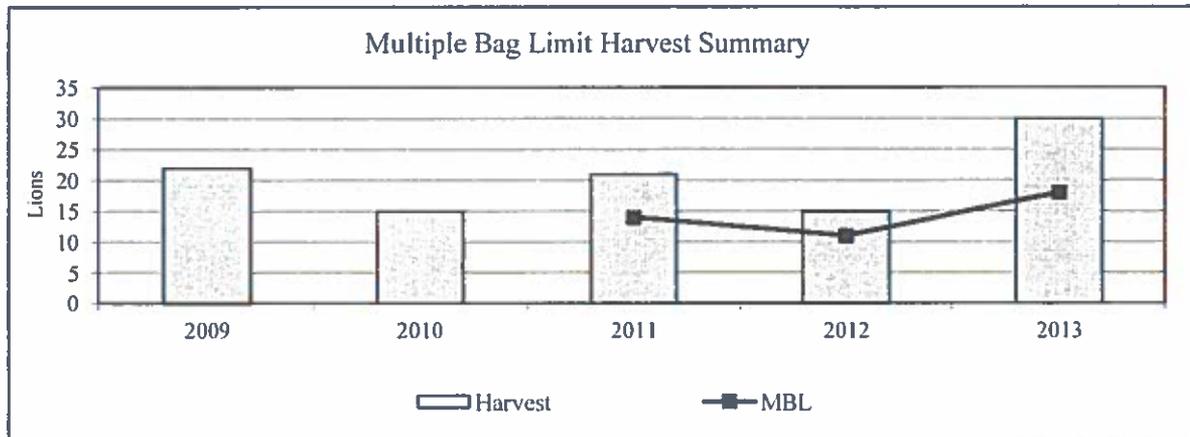
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2014 - June 30, 2015	GMU 31 and 32	None	None

Submitted by: J. Bacorn
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/17/14



GMU 31-32 Mountain Lion-Significant Management Issues:

Mountain Lion Removals

There were 30 lions recorded as ^{hunter} sport harvests in GMU 31-32 in 2013, 7 from GMU 31 and 23 from GMU 32. The 5-year and 10-year average sport harvests are 20 and 18 lions, respectively (Figure 1). Lions are also removed from GMU 31-32 under deprecation laws authorized through ARS 17-302. From 2003-2007, 34% of the statewide deprecation lions occurred in GMU 31-32 (Mountain Lion and Bear Conservation Strategies Report). In 2013, 25 deprecation lions were removed from GMU 31-32. The 5-year and 10-year average number of deprecation lions removed from GMU 31-32 are 19 and 17 lions (Figure 1).

In a combination of sport harvest and deprecation, 55 lions were removed from GMU 31-32 in 2013, the 5-year and 10-year averages are 39 and 35 (sport harvest and deprecation combined). Total mountain lion removal has been variable within GMU 31-32, this year's removal of 55 is the highest since 1998 when 59 lions were removed (Figure 1 and 2). Note the sport harvest and deprecation removal appear to have had an inverse relationship between 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 and currently there are 9 MBL areas within the State. 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".

In 2011, the AGFD Commission established a mountain lion MBL in GMU 31-32 in an attempt to improve the desert bighorn sheep (DBS) population. Initially the MBL included the entire area of both GMU 31 and 32. In 2012, the AGFD Commission restricted the lion MBL Area to the northern portions of GMU 31 and 32 which includes the Aravaipa Canyon drainage and the Galiuro and Santa Teresa Mountains.

The new MBL Area focuses on DBS habitat in the Aravaipa drainage and on the west side of the Galiuro Mountains but eliminated the Pinaleno (Graham) and Winchester Mountains which do not contain DBS habitat. The Aravaipa-Galiuro MBL Area encompasses approximately 840 square miles. Within this defined area the population is estimated to be 30-68 lions; 50%-75% of this estimated population is 25-36 lions.

MBL Results

The GMU 31/32 MBL is established at 20 lions. The MBL season runs from July 1 through June 30 instead of the calendar year, therefore within a calendar year, there could be two MBL seasons. The 2011-12 MBL of 20 lions was reached in late January of 2012 and the 2012-13 MBL was reached in late June of 2013. On a calendar year basis, in 2011; 14 mountain lions were taken within the MBL area, in 2012; 11 mountain lions and during 2013; 18 were taken within the MBL.

The AGFD discontinued surveying DBS in GMU31-32 annually back in 2000 and switched to a survey every other year or every 3rd year. Here are results of the last 5 DBS surveys in GMU31-32 since 2003:

2003/04	101 Classifications	lamb:ewe ratio of 22:100
2006/07	96 Classifications	lamb:ewe ratio of 25:100
2009	113 Classifications	lamb:ewe ratio of 19:100
2012	42 Classifications	lamb:ewe ratio of 37:100
2013	77 Classifications	lamb:ewe ratio of 38:100

In 2012 there were three management objectives set in the GMU 31-32 Mountain Lion Hunt Recommendations and these objectives were to be evaluated every 2 survey cycles. Two DBS surveys have occurred since then. The management objectives evaluated are:

A measureable increase in observed total population of DBS, and/or

A measureable increase in observed lamb:ewe ratios, and /or

A measureable increase in mountain lion removals occurring within DBS occupied habitat.

Was there a measureable increase in observed DBS during the 2011/12 and 2012/13 MBL? The previous 2009 DBS survey had resulted in a high observation rate of 113 sheep, the highest since the late 1980s. The observations in 2012 and 2013 were lower than the previous 3 surveys, but the number of DBS observations in 2013 was an increase from the 2012 survey. The lower observations in 2012 may have been more of a result of sheep missed during the survey as opposed to a drastic decrease in total population.

The 2012 and 2013 lamb:ewe ratio in Aravaipa Canyon was above or near the 35 year average (Figure 4). The 2012 lamb:ewe ratio was the highest since 1994 and similar back to back surveys had not produced similar lamb:ewe ratios since the early 1990's, while previous lamb:ewe ratios have been below the 35 year average during surveys the last 10 years.

The MBL did focus more mountain lion harvests in proximity to DBS habitat than what had occurred in past years, prior to the establishment of the MBL. In 2013, 8 mountain lion harvests occurred in proximity to DBS habitat in Aravaipa Canyon and 2 mountain lion harvests occurred in proximity to DBS habitat on the west side of the Galiuro Mountains (Figure 3).

Recommendation

The previous Mountain Lion recommendations were to keep the MBL in place for a minimum of 3 years and evaluate the objectives after 2 survey cycles. The 2012/13 MBL is still in effect until July 1 of 2014, therefore the DBS survey in 2014 may still show a response to the MBL, if any occur.

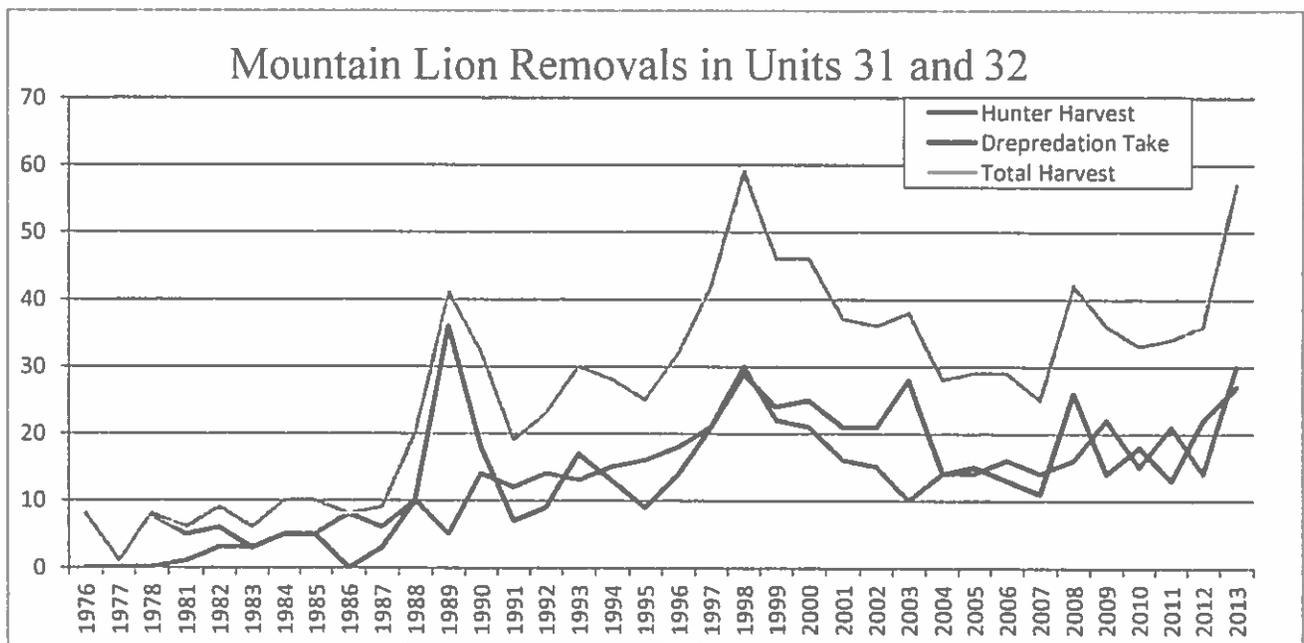
The mountain lion recommendation for 2014-15 is to ~~not~~ not continue the MBL in GMU31/32, but to evaluate the DBS survey in 2014 and 2015 under the previous MBL management objectives and consider options of reestablishing the MBL in the future.

GMU 31/32 Mountain Lion

Figure 1.

Mountain Lion Sport Harvest and Depredation GMU 31-32								
YEAR	SPORT 31	DEPREDATION 31	SPORT 32	DEPREDATION 32	SPORT 31/32	DEPRED 31/32	Total 31/32	31/32 MBL
1997	6	11	15	10	21	21	42	
1998	6	23	24	6	30	29	59	
1999	9	20	13	4	22	24	46	
2000	11	9	10	16	21	25	46	
2001	4	13	12	8	16	21	37	
2002	8	12	7	9	15	21	36	
2003	5	18	5	10	10	28	38	
2004	8	9	6	5	14	14	28	
2005	8	11	6	4	14	15	29	
2006	4	4	12	9	16	13	29	
2007	4	7	11	4	15	11	26	
2008	3	13	13	13	16	26	42	
2009	7	6	15	8	22	14	36	
2010	3	7	12	11	15	18	33	
2011	6	5	15	9	21	14	35	
2012	4	13	10	9	14	22	36	
2013	7	14	23	11	30	25	55	
5 yr ave	5	9	15	10	20	19	39	
10 yr Ave	5	9	12	9	18	17	35	
Total	103	195	209	148	312	343	655	0

Figure 2.



Historical Bighorn Survey Information for Aravaipa Canyon (1978 to Current)

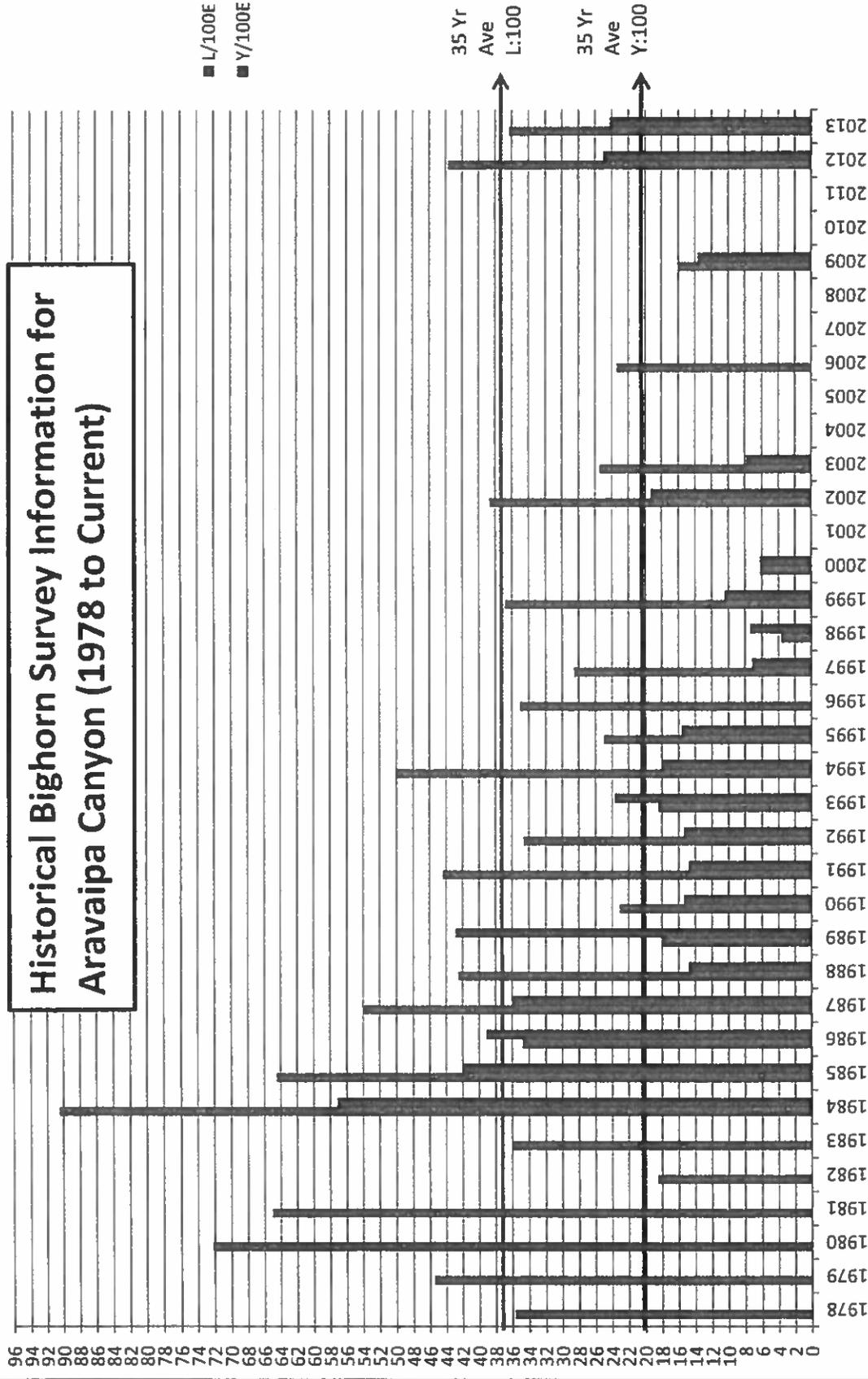
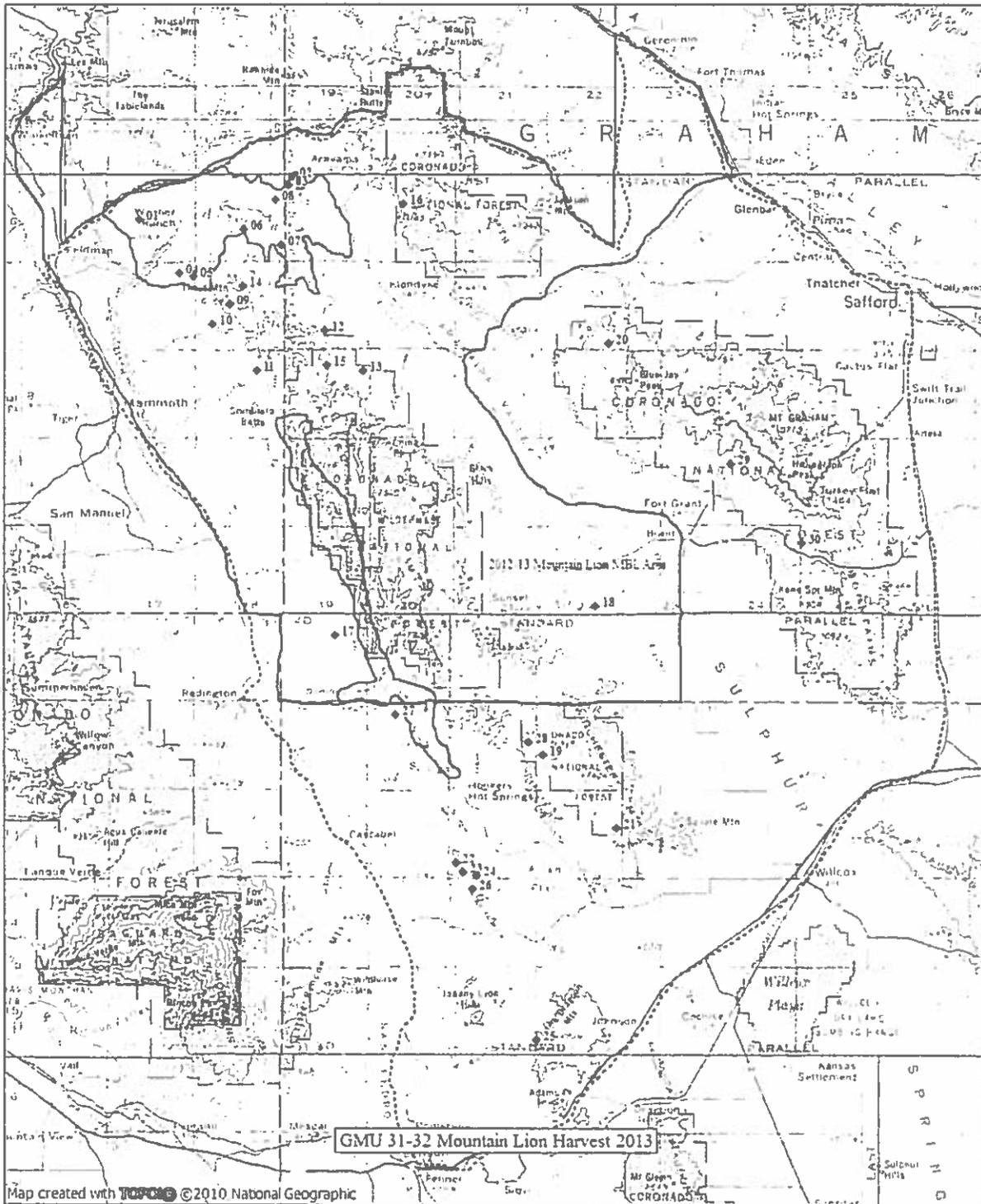


Figure 4.

Figure 3

GMU 31-32 Mountain Lion Harvest 2013



NATIONAL GEOGRAPHIC

0 5 10 15 20 25 miles
0 5 10 15 20 25 30 35 40 km

TN/MN
10°
02/20/14

Unit(s): 33

Species: Mountain Lion

Year: 2014

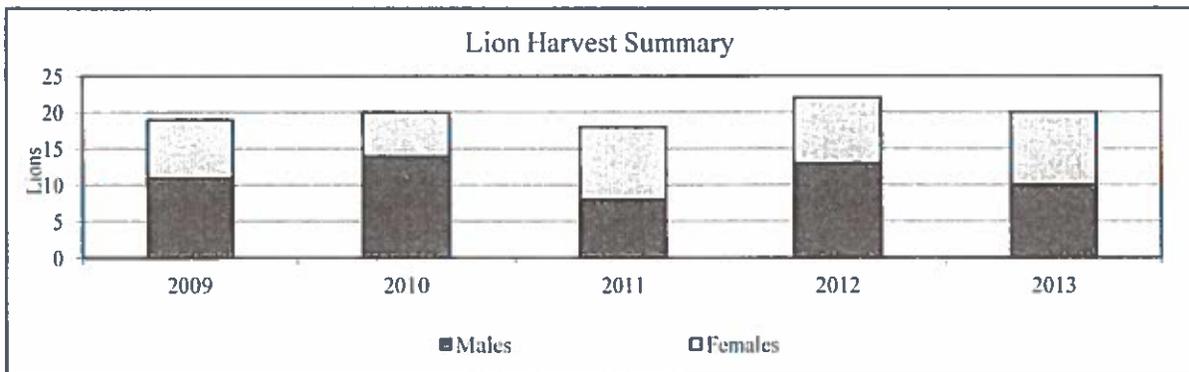
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	11	8	19	2.9	15%	NO
2010	14	6	20	4.2	21%	NO
2011	8	10	18	5.6	31%	NO
2012	13	9	22		0%	NO
2013	10	10	20			
2-Year Mean					14%	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, 2013 - June 30, 2014	Unit 33 including Pusch Ridge Hunt Area	None	None

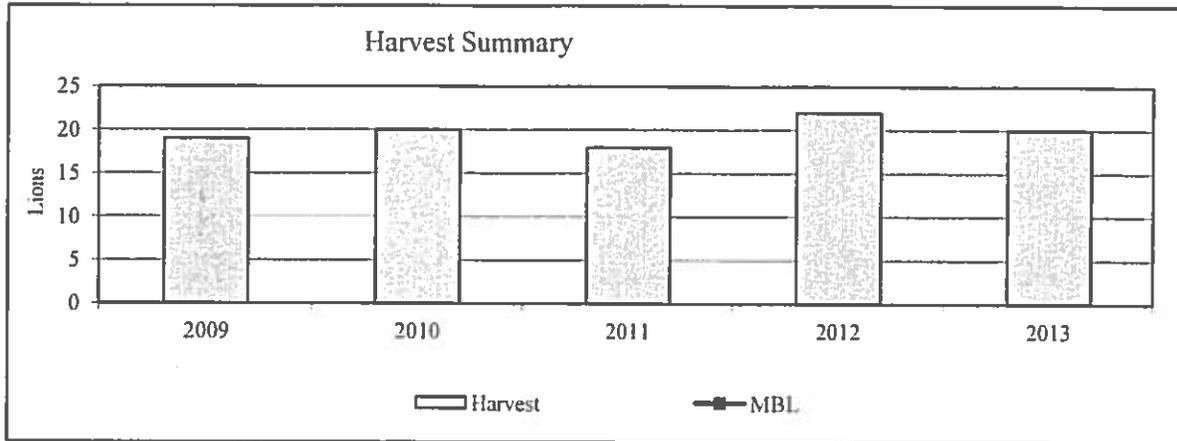
Submitted by: J. McGehee, M. Guerena
Wildlife Managers

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/17/14



Harvest information indicates that the mountain lion population continues to be doing well in this unit. This year there were 20 mountain lions harvested. The harvest level has remained statistically constant over the past five years with a five year average of 19 mountain lions being harvested from Unit 33 per year. This would seem to indicate a healthy robust lion population with good reproduction.

In the fall of 2013, 31 bighorn sheep were reintroduced to the Santa Catalina Mountains in Northern Game Management Unit (GMU) 33. 30 of the 31 bighorn sheep were equipped with GPS collars providing real time information. The addition of a Restrictive Hunt prohibiting the take of mountain lions with the aid of dogs in the Pusch Ridge Hunt Area (PRHA) of Northern GMU 33 was added in the 2013-14 hunt regulations. This was created to be consistent with the Federal dog restrictions put in place to protect the bighorn sheep during the lambing season.

At this point lion predations are much higher than anticipated on the reintroduced bighorn sheep. Removal of the predating lions on bighorn sheep has been difficult. Currently we have lost over 1/3 of our bighorn sheep population to mountain lion predation. With support from our local bighorn sheep advisory committee, it is recommended that the Restrictive Hunt prohibiting the take of mountain lions with the aid of dogs in the PRHA be removed to allow hunters the opportunity to hunt in the PRHA with dogs if they choose.

Unit(s): 20B

Species: Mountain Lion

Year: 2013/14

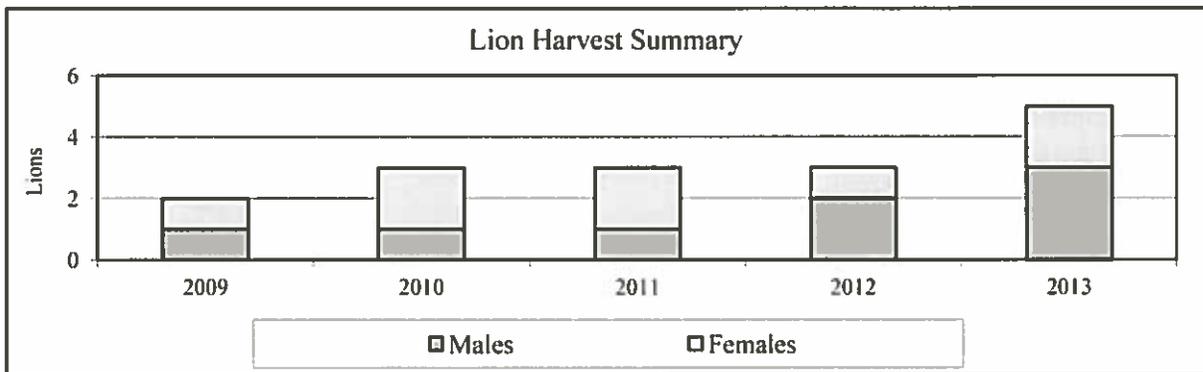
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (>3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	1	3	0	0%	NO
2010	1	2	2	1	50%	YES
2011	1	2	3	1	33%	NO
2012	2	1	3	2	67%	YES
2013	3	2	5			
2-Year Mean					50%	YES

Management Considerations:

*Evaluate Adjacent Unit Zone Management

*Consider Female Harvest Limit



Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1 2014- June 30 2015	Unit 20B - Unitwide	None	None

Submitted by: R. BABEL
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/6/14

Unit(s): 20B

Species: Mountain Lion

Management Notes:

Mountain Lion Recommendation – Unit 20B

Submitted by: R. Babel

Open Season Dates: July 1, 2014 – June 30, 2015

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:

*Five mountain lions were reported by sport harvest in 2013. The harvest comprised of 3 male lions and 2 female lions. One additional older class female was reported as killed by a vehicle crossing Hwy 74 on the 20B/26M Border.

*2012 Cementum Age and 2013 Age data not available at time of hunt recommendation.

Management Notes:

Year	Sex	Cementum Age	Estimated Age
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): 21

Species: Mountain Lion

Year: 2013/14

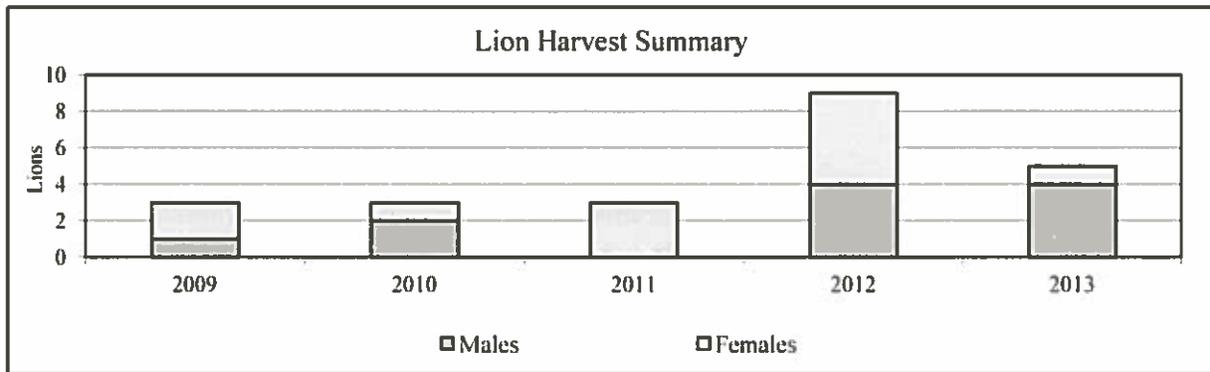
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	1	2	3	1	33%	NO
2010	2	1	3	1	33%	NO
2011	0	3	3	1	33%	NO
2012	4	5	9	1	11%	NO
2013	4	1	5			
2-Year Mean					17%	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, 2014 to June 30, 2015	GMU 21	None	None
Multiple Bag Limit (MBL)	NA	NA		

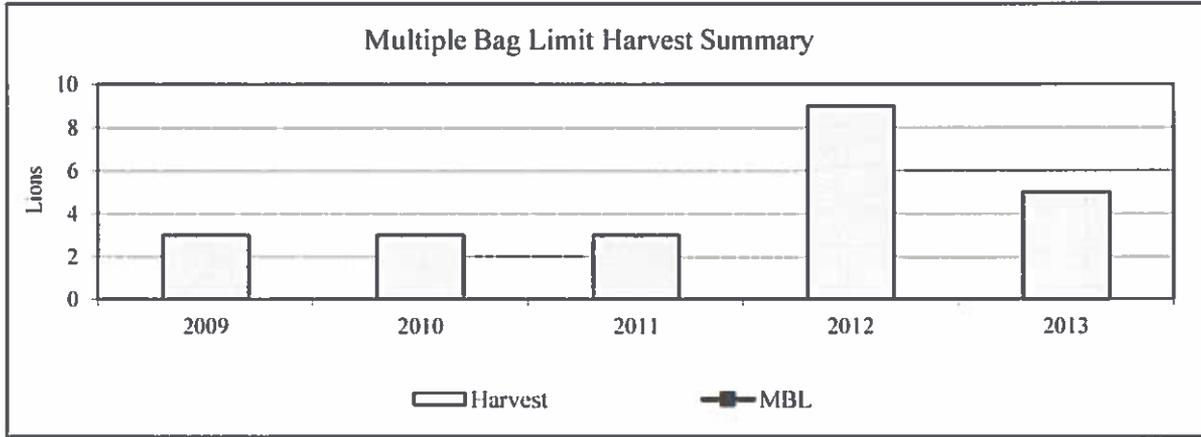
Submitted by: Kyle Cooper
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/6/14



Significant Management Issues, Opportunities or Challenges:

*list items of management significance

*None

*

Regional Notes:

There is no reason to reduce the season at this time. I believe the lion population is healthy and support the current hunt season.

Unit(s): 22

Species: Mountain Lion

Year: 2013/14

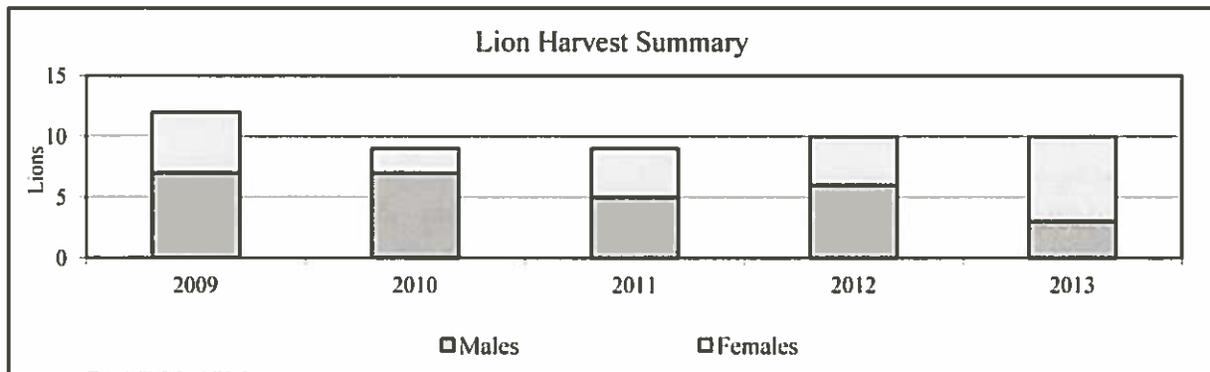
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	7	5	12	2	17%	NO
2010	7	2	9	1	11%	NO
2011	5	4	9	2	22%	NO
2012	6	4	10	1	10%	NO
2013	3	7	10			
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, 2014 - June 30, 2015	Unit 22	None	None
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	22S (South of Hwy 87 and FR 143, West of Hwy 188)	12	None

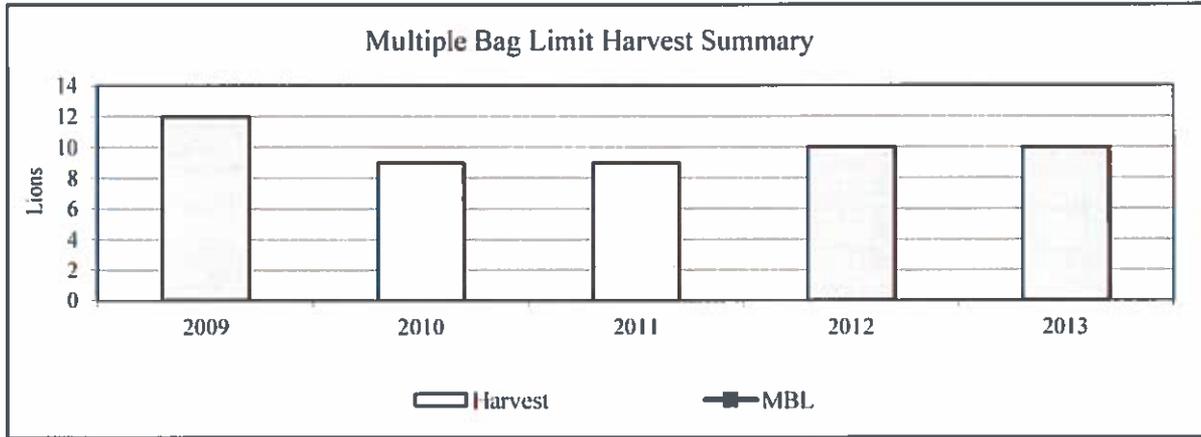
Submitted by: John Dickson
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/10/14



Significant Management Issues, Opportunities or Challenges:

The portion of Unit 22 South of Hwy 87 and Forest Road 143, West of Hwy 188, will continue to be managed with the Multiple Bag Limit.

Regional Notes:

A total of 10 lions (3 male and 7 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

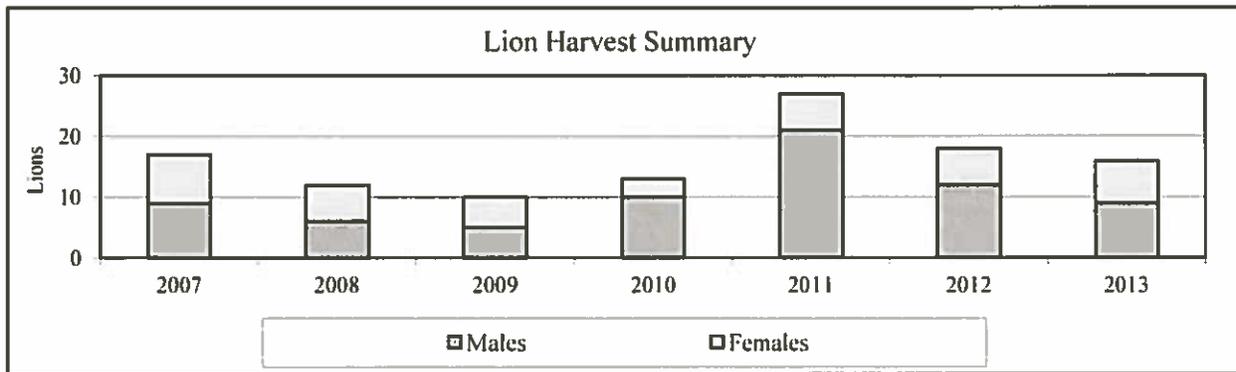
Year: 2013/14

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (>3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2007	9	8	17	1	6%	NO
2008	6	6	12	3	25%	NO
2009	5	5	10	2	20%	NO
2010	10	3	13	3	23%	NO
2011	21	6	27	3	23%	NO
2012	12	6	18			
2013	9	7	16			
2-Year Mean					23%	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, 2014 - June 30, 2015	Unit 23 - Unitwide	None	None

Submitted by: Dave Daniels
Wildlife Manager(s)

Amendments & Notes:


3/6/14

Management Notes:

Harvest Information: The three-year mean combined harvest of sport and depredation for Unit 23 is 19 mountain lions. Reported harvest last year was 18 mountain lions in Unit 23. Harvest in the past has fluctuated between 6 (1991) and 27 (2011), but is considered to be stable. Harvest the past five years was, 9 (2009), 13 (2010), 27 (2011), 28(2012) and 15(2013).

Track Counts: Track counts are no longer conducted to monitor the mountain lion population changes.

Conclusion: The mountain lion population in Unit 23 appears to be stable and healthy. The lion harvest appears to not need more restrictions on take at this time. This year's harvest included 7 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. No change from the current hunt structure is recommended.

Unit(s): 24A

Species: Mountain Lion

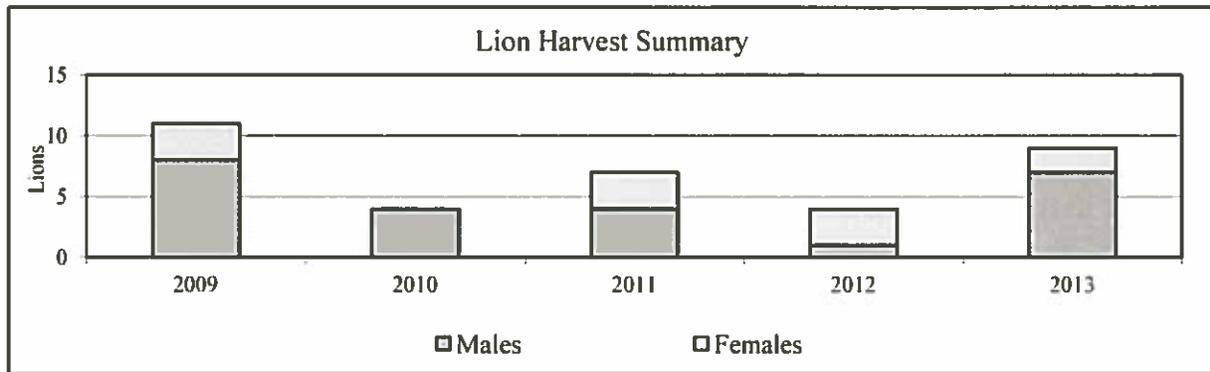
Year: 2013/14

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	8	3	11	0	0%	NO
2010	4	0	4	0	0%	NO
2011	4	3	7	0	0%	NO
2012	1	3	4	1	25%	NO
2013	7	2	9			
2-Year Mean					9%	NO

Management Considerations:

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



Hunt Recommendation:

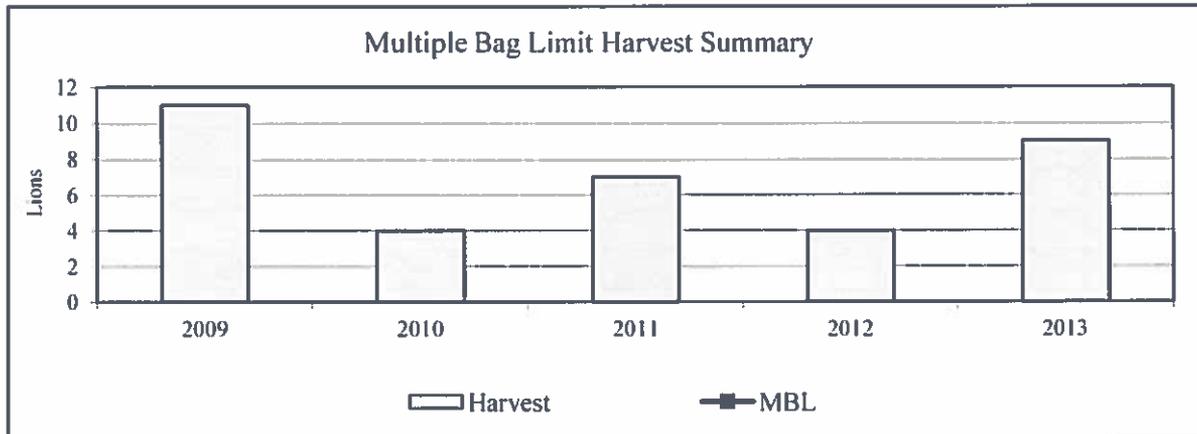
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2014-June 31, 2015	Unit wide	None	None

Submitted by: Danny Rodriguez
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/6/14



For 2013, a total of 9 lions were reported as sport harvested of which 7 were males and 2 were females. For 2012, a total of 4 lions were reported as sport harvested of which 1 was a male and 3 were females. For 2011, a total of 7 lions were sport harvested of which 4 were males and 3 were females. There was also 1 road killed male. For 2010, a total of 4 lions were harvested of which all were males.

For 2009, a total of 11 lions were reported as sport harvest of which, 8 were males and 3 were females.

Tooth data from 2012 is used to manage for 2013/14 female segments of the population due to the time frame required to receive the samples back. For 2012, no male tooth samples were available or listed in the summary sheet. The average age of females was 3 with the youngest being 2. In 2011, the average age for males was 4 and the average age for females was 3 with the youngest being 1. Tooth data for 2010 listed the oldest male harvested to be 10 and the youngest was 1 with an average age of 4. There was no tooth data available for females harvested in 2010. Tooth data for 2009 listed the oldest male harvested at 4 and the youngest was 1 with an average age of 2.5. For 2009, the oldest female was 2 and the youngest was 1 with an average age of 1.5.

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.

Unit(s): 24B

Species: Mountain Lion

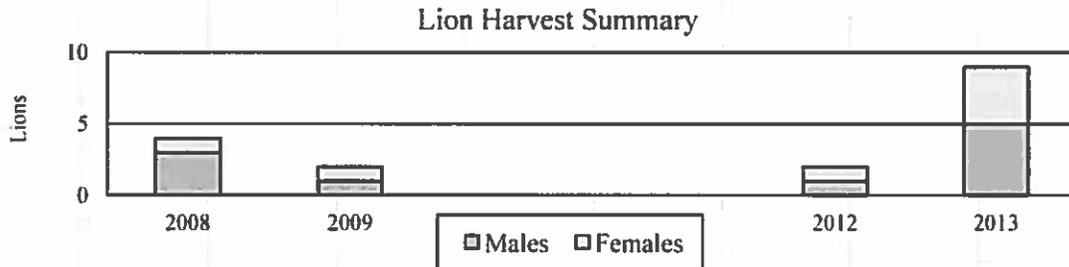
Year: 2013/14

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	3	1	4	2	50%	YES
2009	1	1	2	2	100%	YES
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	0	0	0	0	0%	NO
2012	1	1	2			
2013	5	4	9			
2-Year Mean					0%	0

Management Considerations:

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



Hunt Recommendation:

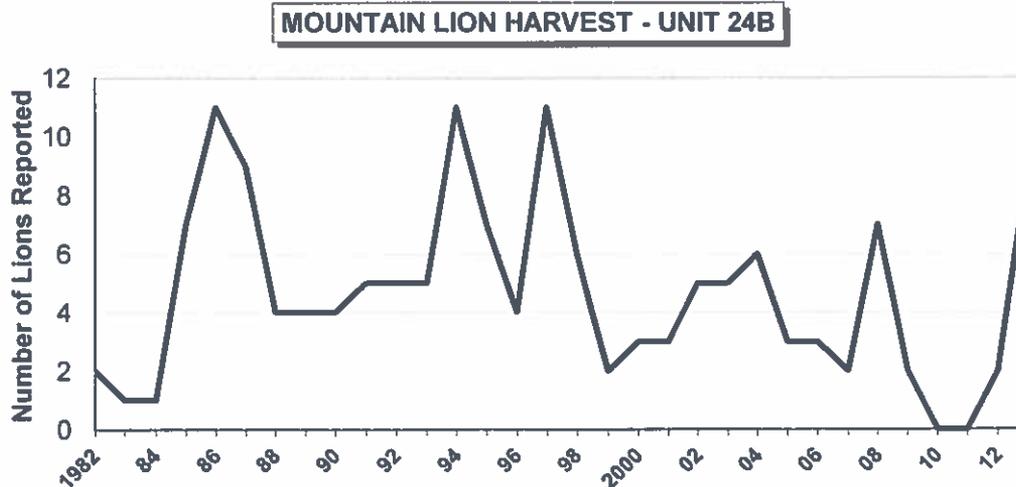
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2014 to June 30, 2015	Unit 24B - Unit wide	None	None

Submitted by: D. McGehee
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____

Date: _____



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 regarding the take of lions, due in part to extremely rugged terrain throughout a large part of the Unit.

More recently, sport hunters appear to have taken an increased interest in Unit 24B for lion hunting. This may partially be attributed to the attention the Unit has 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 habitats in order to hopefully 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: 2013/14

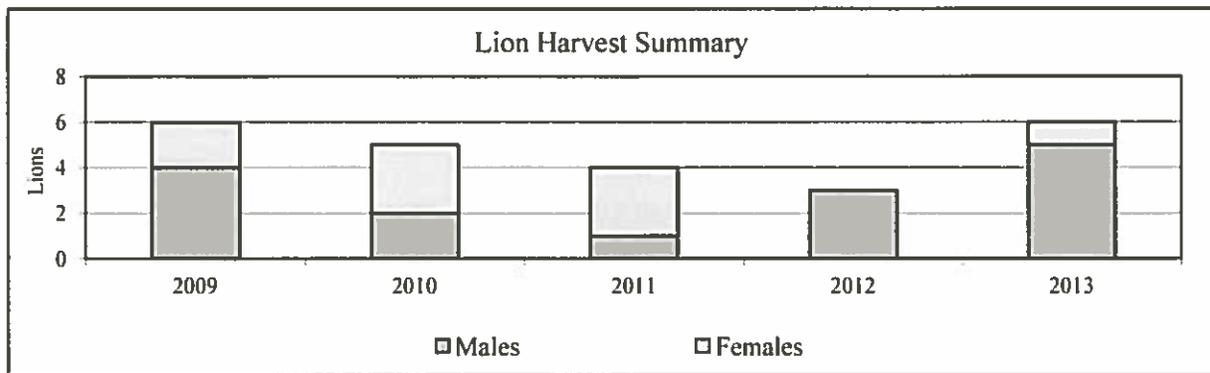
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2009	4	2	6	1	17%	NO
2010	2	3	5	0	0%	NO
2011	1	3	4	1	25%	NO
2012	3	0	3		0%	NO
2013	5	1	6			
2-Year Mean					14%	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, 2014 - June 30, 2015	Unit 37B	None	None
Multiple Bag Limit (MBL)	July 1, 2014 - June 30, 2015	Unit 37B - North of the Gila River	4	None

Submitted by: Kriselle Colvin
Wildlife Manager(s)

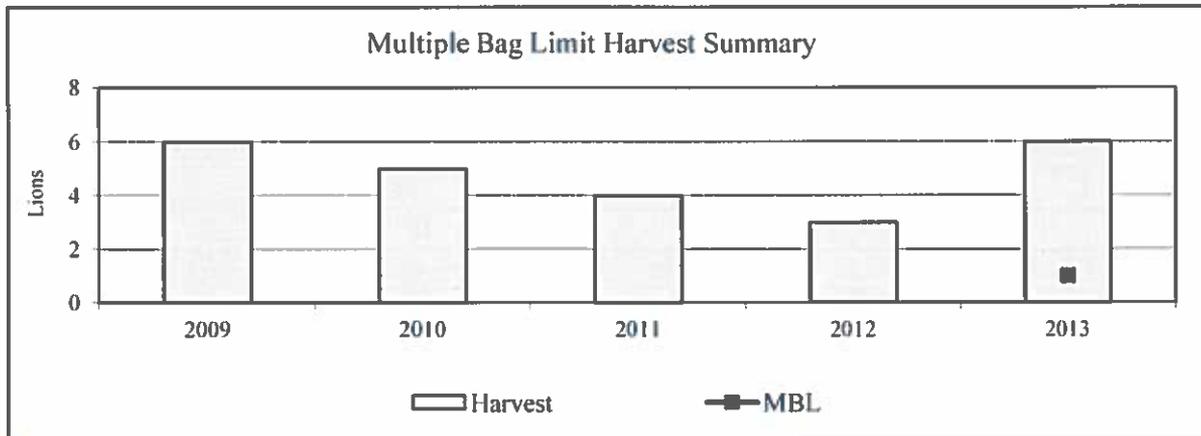
Amendments & Notes:

Game Branch Approval:

[Signature]

Date:

3/10/14



Regional Notes:

A total of 6 Mountain lions (5 male) were harvested from Unit 37B in 2013. Calculated adult female harvest is less than 35% of total harvest and is within guidelines.

The mountain lion population in Unit 37B appears to be stable and healthy from the harvest information, therefore I recommend no change from the current hunt structure.

Significant Management Issues, Opportunities or Challenges:

The portion of Unit 37B north of the Gila River will continue to be managed with the Multiple Bag Limit. Hunters are taking advantage of the new Daylong Shooting Hours hunt structure for mountain lion hunting opportunities in Unit 37B North, at least one of the lions harvested in 2012 was at night.

A multiple bag limit (MBL) for mountain lions was proposed in 2011 for Game Management Unit (GMU) 37B for 3 reasons with the first being the primary goal and the second two being ancillary benefits to the initiation of a MBL. They are: 1) to establish a viable population of bighorn sheep in suitable but mostly unoccupied bighorn habitat in the Mineral Mountains in northern GMU 37B, 2) to increase hunter opportunity, and 3) to reduce lion depredations on livestock.

Goal 1: To establish a viable population of bighorn sheep in suitable but mostly unoccupied bighorn habitat in the Mineral Mountains in northern GMU 37B. Once targets have been achieved for which the MBL was established, the MBL hunt structure will be removed from GMU 37B.

MEASURABLE OBJECTIVES

- * The MBL will be discontinued in GMU 37B once a viable population of bighorn sheep has become established in suitable but mostly unoccupied bighorn habitat in the Mineral Mountains; or -
- * After a period of five years and the determination has been made that the continued use of a MBL is not beneficial or necessary for the establishment of a viable sheep population.
- * Once the MBL is discontinued and a viable population of sheep becomes established; it may be reinstated at a later date if sheep population levels fall to or below 30 individuals.

Background and Summary of efforts thus far in the Minerals - 2003 to Current

The Mineral Mountains have been identified in AGFD and BLM documents for the last two decades as a priority area to establish a robust population of desert bighorn sheep. In 2000, AGFD conducted a statewide bighorn sheep habitat analysis using the Cunningham/Hansen Habitat Evaluation Model (Lee et al. 2000), and the Mineral Mountains area rated as the highest currently unoccupied bighorn sheep habitat in southern Arizona.

In November of 2003 the first transplant of 30 sheep was done. These sheep were from several sources in Region 4. Eleven of these sheep were outfitted with radio telemetry collars. In 2007, 10 more sheep were transplanted, these were also from Region 4. Four of these sheep were outfitted with radio collars. During the time these collars were monitored there were zero confirmed mortalities although several attempts were made to retrieve collars emitting mortality signals, it was determined that the sheep were still alive and moving which made retrieval impossible.

In November 2010, another 30 bighorn sheep were translocated from within Region 6, specifically units 22 and 24B, twenty of the sheep were outfitted with tracking collars. While those collars were active there were 6 mortalities on bighorns; 3 ewes and 3 young rams. It was confirmed that one of the young rams and one of the ewes were killed by mountain lions. These confirmed lion kills coupled with two of the other mortalities being of unknown cause has raised interest in more proactive lion management

To that end, in April of 2011 the Arizona Desert Bighorn Sheep Society petitioned the Game and Fish Commission to have them reinstate the previous multiple bag limit for Unit 37B to facilitate problem lion removal in the Mineral Mountain area. This multiple bag limit was previously in place from July 1, 2003 to June 30, 2006 during which time according to data gathered by the department zero lions were removed from northern Unit 37B although there were 14 lions removed from southern 37B in that same time frame. Although zero lions were removed from the Mineral Mountain area during that time it is possible that the increase in lions taken out of the southern half of the unit could have affected the general population.

The final transplant for the project was completed in November 2012, 30 sheep were moved from Units 22/24B. Ten of those sheep were outfitted with Lotek GPS collars 8 of which are still in the field and are being monitored for movement and mortality. There have been 2 mortalities on collared sheep 1 of which was possibly due to Mountain Lion predation. This final transplant brings the total number of sheep transplanted for the project to 100.

