

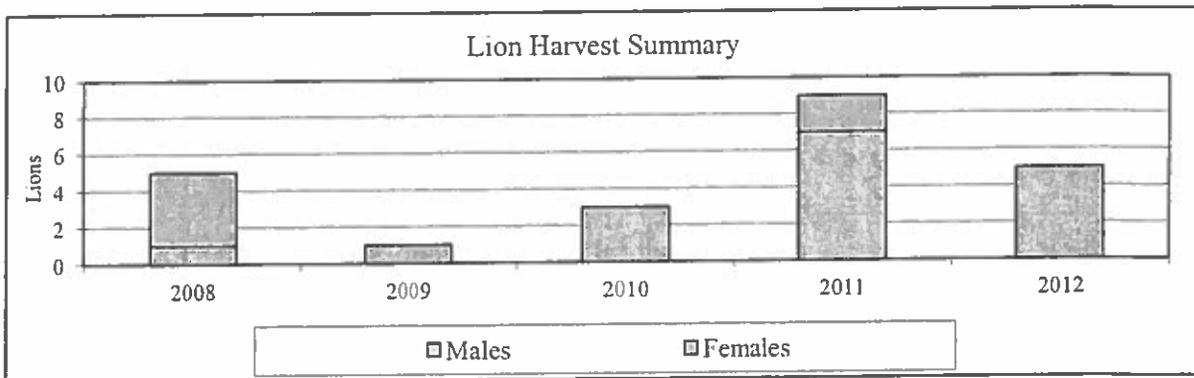
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	1	4	5	1	20%	NO
2009	1	0	1	0	0%	NO
2010	3	0	3	0	0%	NO
2011	7	2	9	0	0%	NO
2012	5	0	5			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

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

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

Amendments & Notes:

Reviewed and approved: M. Godwin 02/18/2013

Game Branch Approval:

Date: 3/13/13

Management Notes:

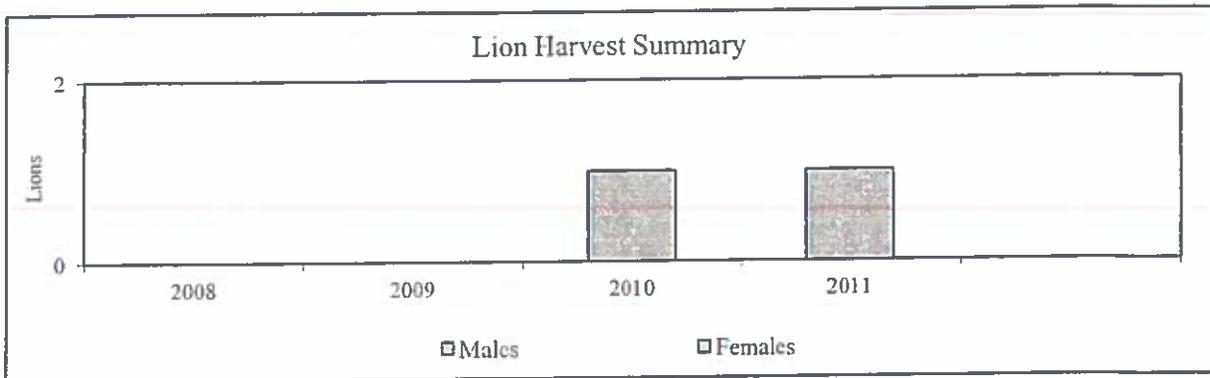
It is recommended, in Unit 1, to follow the standard hunt season structure for mountain lion without a female harvest limit. The 2-year mean of adult females harvested is less than 35%. This recommendation is within guidelines.

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		1	1		0%	NO
2011		1	1		0%	NO
			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
Standard	July 1, 2012 - June 30, 2013	Unit 2ABC, unit wide	None	None

Submitted by: Joel Weiss
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 7/13/13

Maintain current hunt structure of July 1, 2013 June 30, 2014 season dates with bag limit of one mountain lion per year for the entire unit.

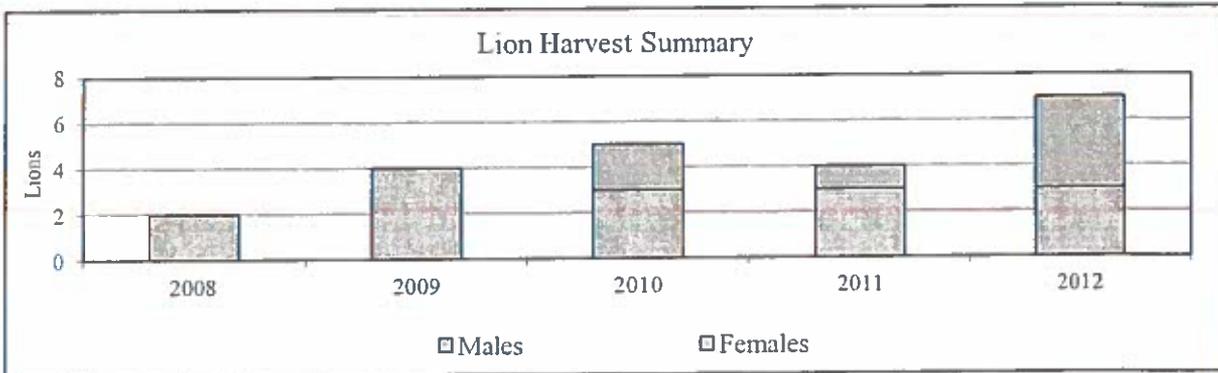
The current hunt structure in GMU 2ABC is an open season from July 1, 2013-June 30, 2014 with a bag limit of one lion per year. This season and bag limit is consistent with most of the state.

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	2		2	0	0%	NO
2009	4		4	0	0%	NO
2010	3	2	5	0	40%	YES
2011	3	1	4	0	25%	NO
2012	3	4	7			
2-Year Mean					33%	NO

Management Considerations:

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



Hunt Recommendation:

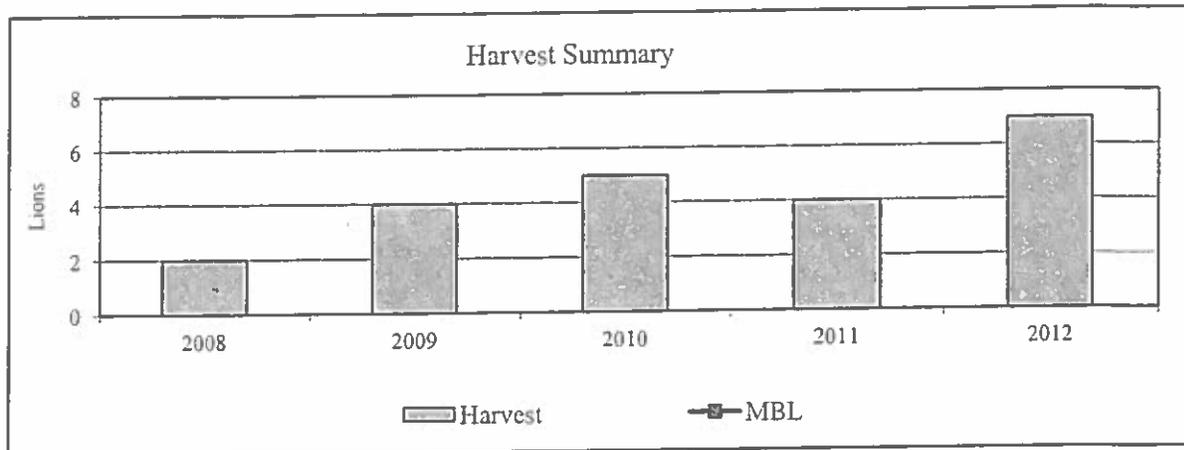
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2013 - June 30, 2014	Unit 3A, 3B, 3C - Unit-wide	None	None

Submitted by: Shawn Wagner
Wildlife Manager(s)

Amendments & Notes:
Reviewed by Bob Birkeland on 2/22/13

Game Branch Approval:

Date: 3/13/13



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

In 2011, we have age data for four (4) lions and all were harvested in Units 3B and 3C. In addition, only one lion was a breeding age adult.

Age Data in 2011 (most current data):
Female - 2 yrs old (3C)
Male - 2 yrs old (3C)
Male - 5 yrs old (3C)
Male - 3 yr old (3B)

In 2012, one 2-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.

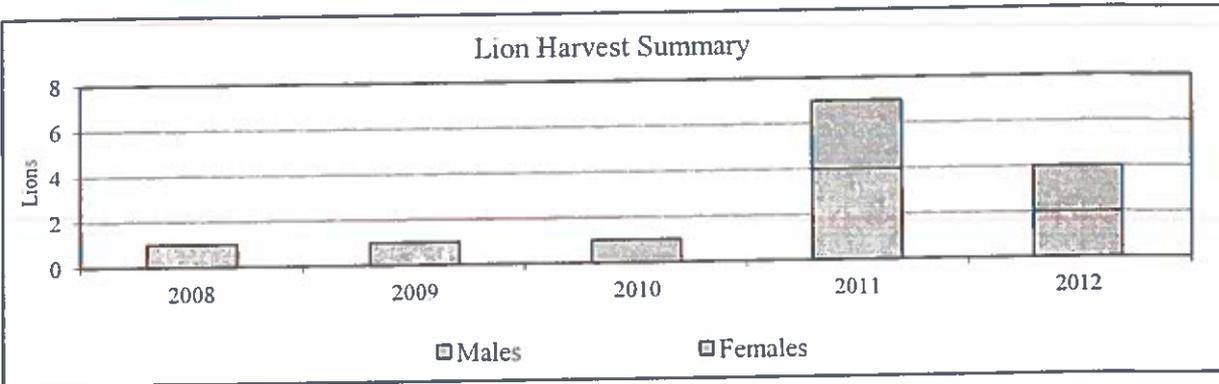
One 2-year old male lion was killed by a vehicle collision on Highway 60 in GMU 3B in November, 2012. This animal is not included in the harvest totals.

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	1	0	1		0%	NO
2009	1	0	1		0%	NO
2010	0	1	1	1	100%	YES
2011	4	3	7	0	0%	NO
2012	2	2	4			
2-Year Mean					13%	NO

Management Considerations:

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



Hunt Recommendation:

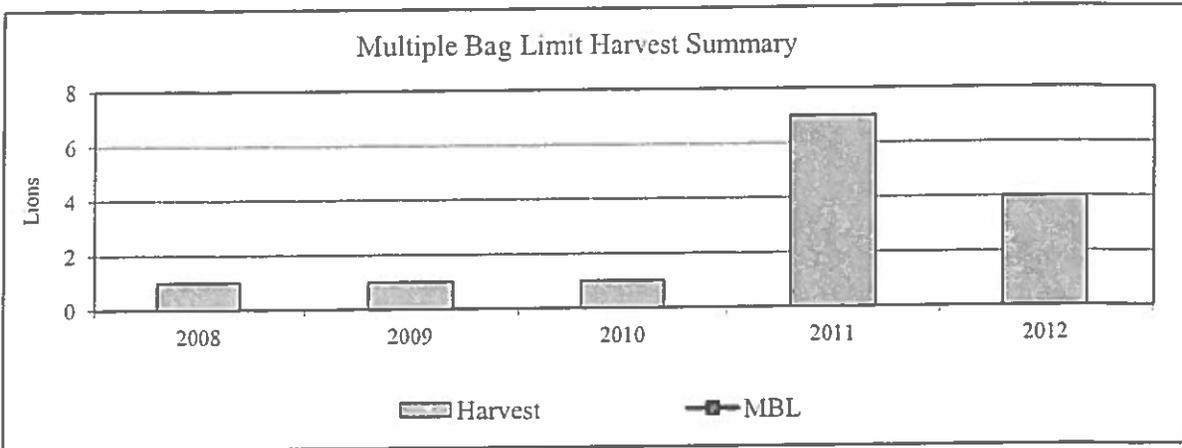
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2013 - June 30, 2014	Units 4A & 4B	None	None

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

Amendments & Notes:

Game Branch Approval:

Date: 3/13/13



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

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

Unit(s): 27

Species: Mountain Lion

Year: 2012/13

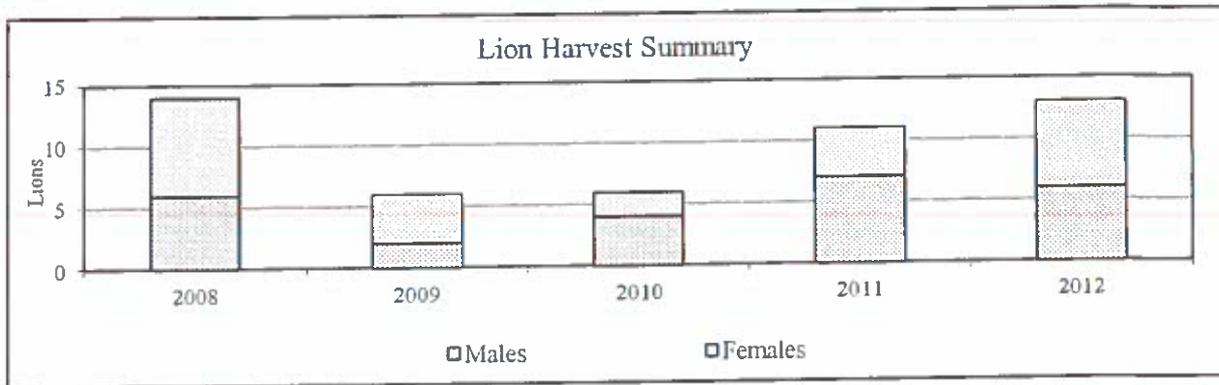
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	6	8	14	3	21%	NO
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			
2-Year Mean					12%	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 27, except multiple bag limit areas	None	None
Multiple Bag Limit (MBL)	July 1, 2013 - June 30, 2014	Upper Blue River Hunt Area in Unit 27	8	None
Multiple Bag Limit (MBL)	July 1, 2013 - June 30, 2014	Lower Blue River Hunt Area in Unit 27	10	None

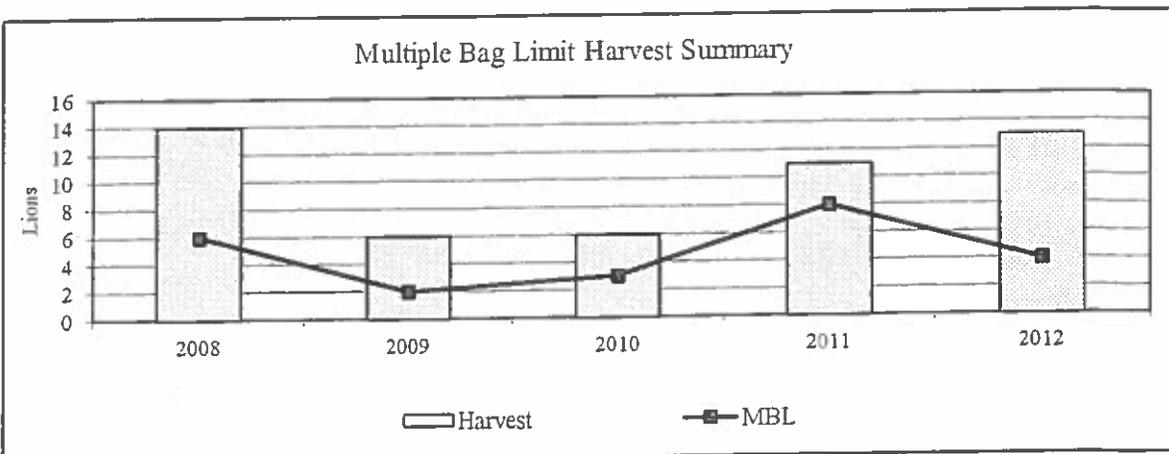
Submitted by: H.S. Najar, A. Hartzell
Wildlife Manager(s)

Amendments & Notes:

reviewed and approved M. Godwin 2/18/2013

Game Branch Approval:

Date: 3/13/13



Significant Management Issues, Opportunities or Challenges:

*No data is currently available for depredation harvest.

*The Bear Canyon MBL area is being modified to be consistent with the change to the recommended sheep hunt area in the Upper Blue.

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

Modify the Bear Canyon Multiple Bag Limit hunt area to be consistent with the new Upper Blue River Hunt Area in Unit 27

The current hunt structure in GMU 27 is a recommended open season from July 1, 2013 through June 30th of 2014, 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 Bear Canyon 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 two lions were killed in this area in 2012. The Unit boundary 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.

It is recommended to rename the Bear Canyon Multiple Bag Limit area and expand it to be consistent with the recommended "Upper Blue River Hunt Area in Unit 27". This expansion to the MBL area will now encompass the population of sheep that are found in the Foote Creek area as well as the sheep in the lower Bear Canyon area. With this increase in area it is also recommended to increase the MBL target to 8 animals. In looking at harvest records over the past 5 years it appears that the most lions that were killed in the Upper Blue River Hunt Area was 6 in 2011. Data also indicates that the three and five year averages are around 3 lions killed in this area. These numbers were from the "location of harvest" information found on the hunter check out cards. The new unit name and description should 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.

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 9% of the harvest is composed of adult females.

Unit(s): 13B Species: Mountain Lion

Year: 2012/13

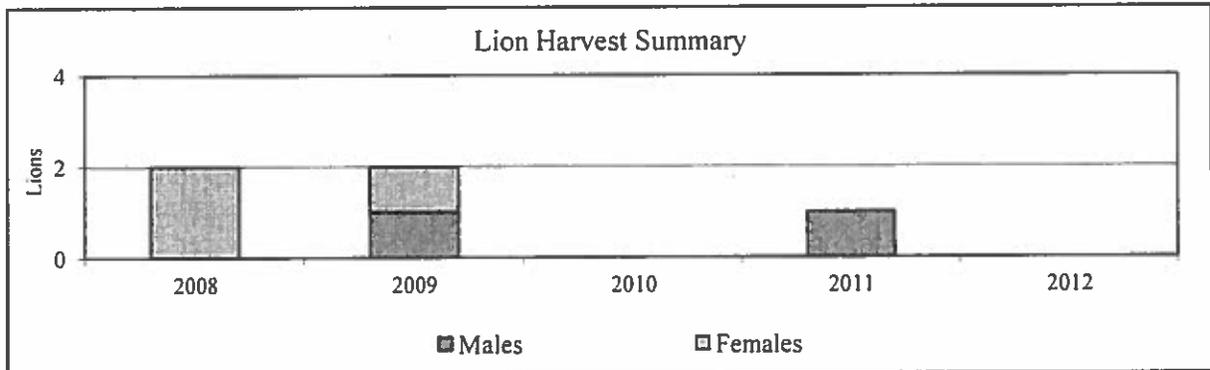
Harvest Summary:

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

Management Considerations:

*Evaluate Adjacent Unit Zone Management

*Consider Female Harvest Limit



Hunt Recommendation:

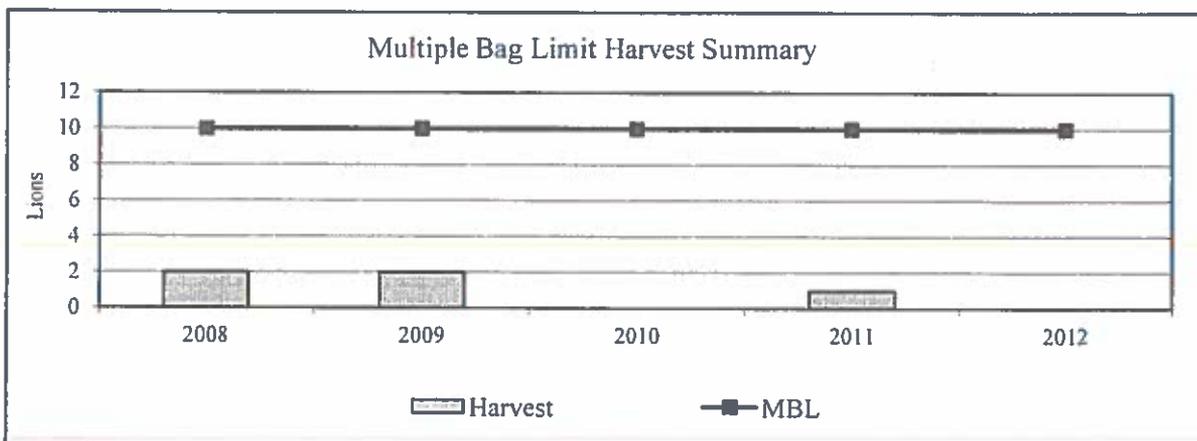
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	August 18, 2012 - May 23, 2013	13B - Not Including the 13BS portion	None	None
Multiple Bag Limit (MBL)	July 1, 2012 - June 30, 2013	13BS	10	

Submitted by: Luke Thompson
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/12/13



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 2012 winter mule deer surveys was 92:100. The 3 year average is 75:100. In addition, survey numbers have increased over the past 10 years in 13B.

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.

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.

Incidentally, mountain lion harvest in 13A has increased in 2011/2012 and is likely a direct result of the burgeoning mule deer population in 13A.

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.

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

Year: 2012/13

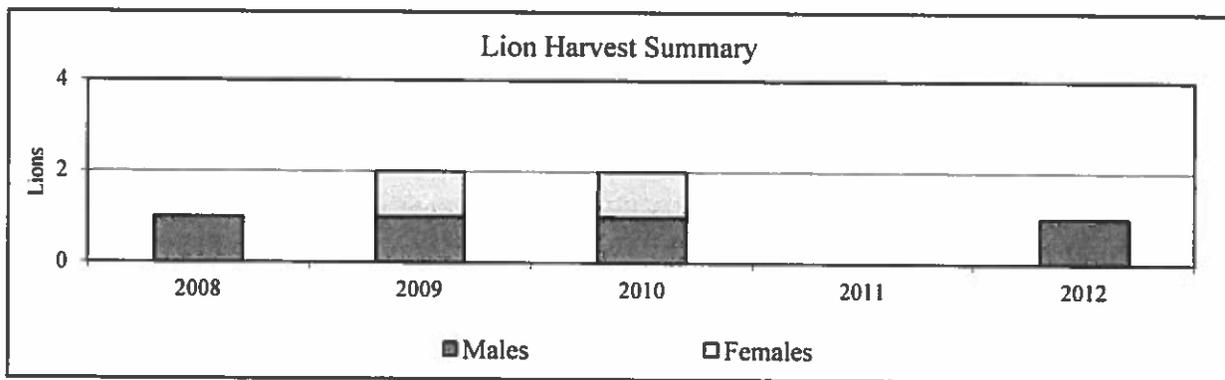
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	1		1		0%	NO
2009	1	1	2	1	50%	YES
2010	1	1	2		0%	NO
2011			0		#DIV/0!	#DIV/0!
2012	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, 2013 - June 30, 2014	15B West, 15C, 15D	10	

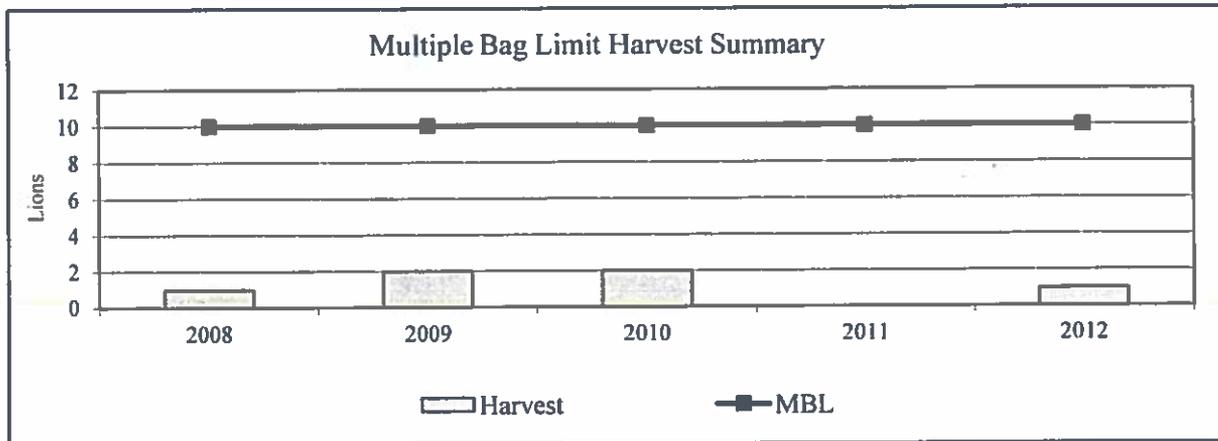
Submitted by: Gunnar Erickson, Luke Apfel
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Signature]

Date: 3/6/13



Multiple Bag Limit Triggers are as follows:

- * Sheep/hour observed in Unit 15CS reaches the 20-year average of 18.1 sheep/hr. In 2012 it was 11.6, which is the best it's been since 2003 but the same as 2011 (11.4).
- * Average sheep observed in Unit 15CS reaches the 20-year average of >108 sheep. In 2012 it was 74, which is the best it's been since 2003 but the same as 2011 (75).

New in the 2012-2014 hunt guidelines are minimal occurrence zones for mountain lions with liberalized harvest strategies. 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.

Mountain lion predation was documented in Unit 15BW by the regional wildlife technician in 2010. The technician was tracking at least one lion which was preying on bighorn sheep. The current technician has not found fresh lion predation in Unit 15D, however the technician has found 4 kill sites in Unit 15BW and 1 kill site in 15CN within the last 6 months (hunters also reported finding lion predations in Unit 15D in December). This predation in Unit 15BW could be a factor in the continued decrease in sheep observations during the sheep survey in 2010-2011.

Unit(s): 16AS, 18BS

Species: Mountain Lion

Year: 2012/13

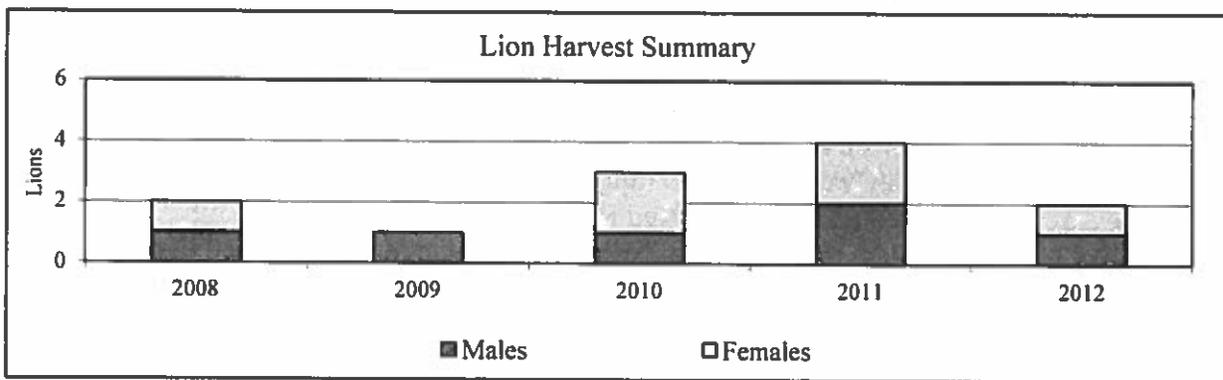
Harvest Summary:

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

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

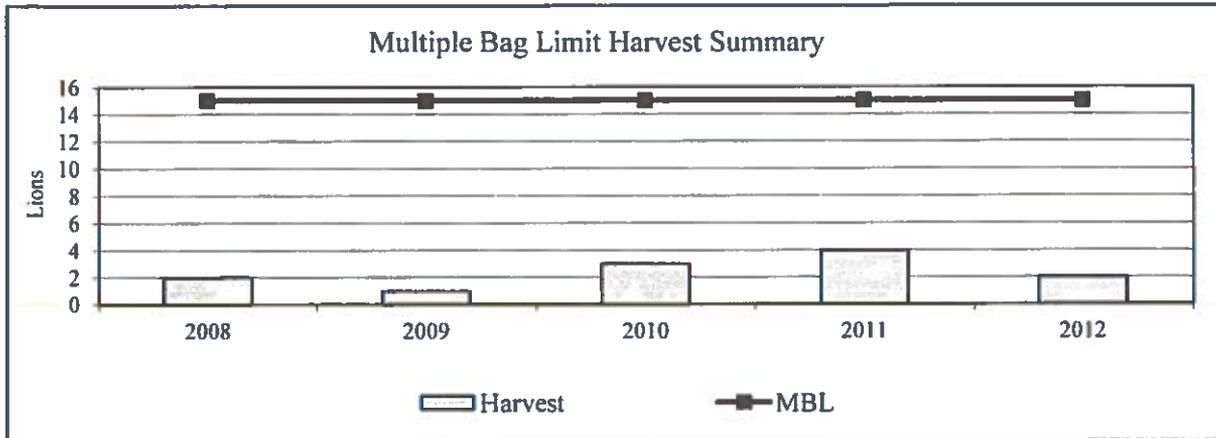
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Multiple Bag Limit (MBL)	July 1, 2013 - June 30, 2014	Units 16AS and 18BS	15	

Submitted by: Lainie Antolik, Tim Shurtliff
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/6/13



Multiple Bag Limit Trigger:

* The bighorn sheep herd reaches a self sustaining level.

In 2012, only 42 sheep were observed; compared to 65 seen in 2011, 37 in 2010 and 13 in 2009. The bighorn sheep survey completed was not as successful as the Wildlife Manager had hoped. The survey day was windy and rainy. Several locations that sheep are normally seen they were not located (Burro Cliffs, Red Knob, Boulder Creek). From July 9 – December 3, 2012 a camera trap was set at Negro Ed tinaja; a lot of sheep activity was captured on the camera. Sheep from both transplants and collared sheep were photographed, as well as several Class III rams. Also on the camera was a lion, but it only appeared once and hopefully was just passing through. The rancher of Burro Creek Allotment has seen 3-4 different lion tracks throughout the year.

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. Eighty percent of the collared sheep mortality in Unit 16AS is attributed to lion predation (4 of 5 mortalities). Lion predation decreased after a mountain lion was harvested in the area. A portion of the bighorn sheep released in Unit 16AS traveled to Unit 44AE, which also has a multiple bag limit area. One of the two sheep mortalities attributed to mountain lion predation was in Unit 44AE.

Unit(s): 16B

Species: Mountain Lion

Year: 2012/13

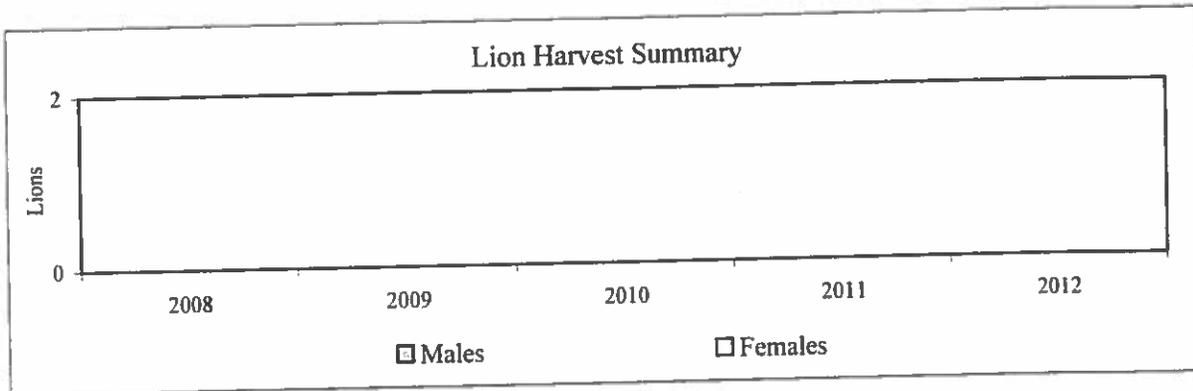
Harvest Summary:

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

Management Considerations:

#DIV/0!

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Hunt Recommendation:

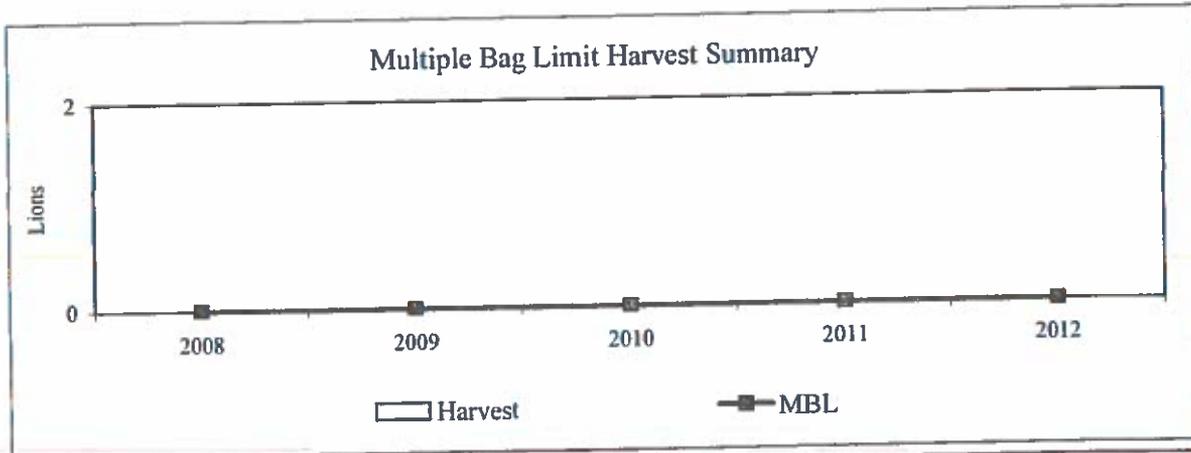
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2013 - June 30, 2014	16B	None	None

Submitted by: S. EHRET
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/14/13



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.

Unit(s): 20C

Species: Mountain Lion

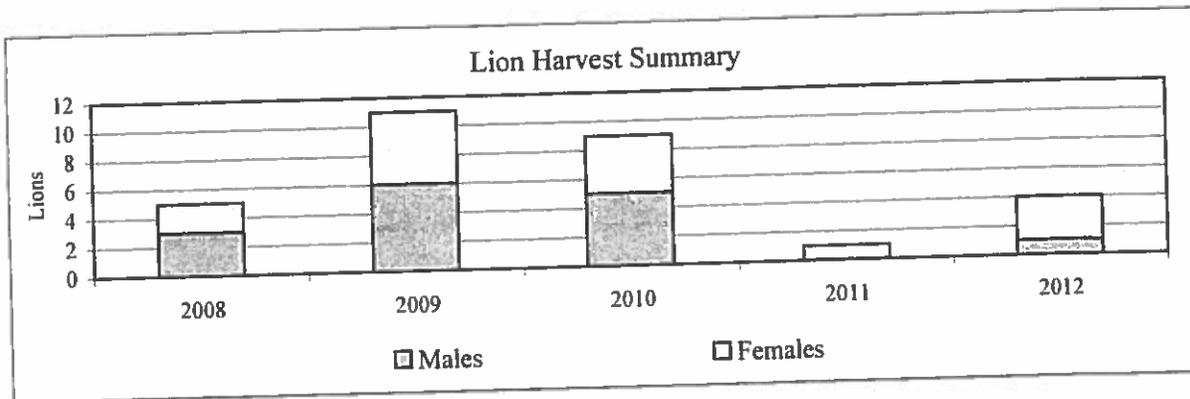
Year: 2011/2/13

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	3	2	5	1	20%	NO
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			
2-Year Mean					10%	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	GMU 20C	None	None

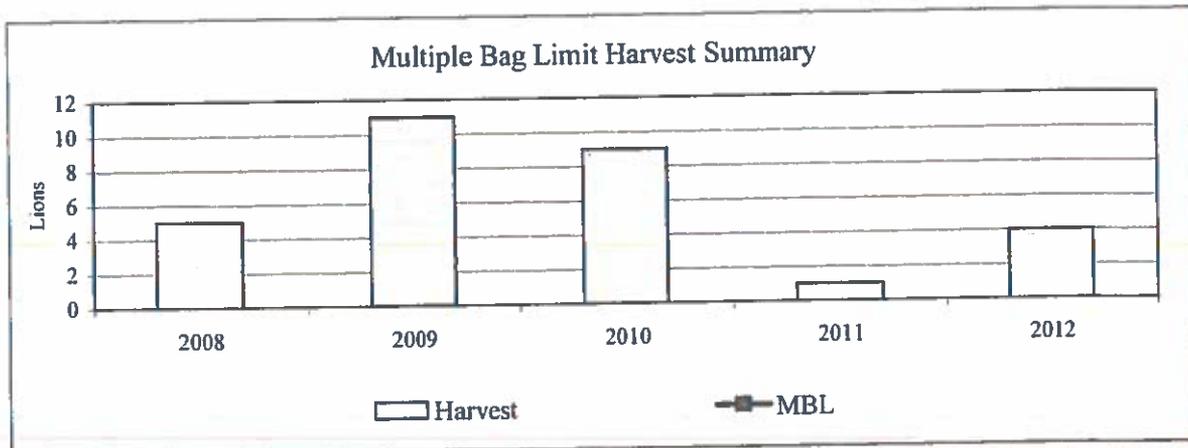
Submitted by: C. Herbert
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Signature]

Date: 3/11/13



Significant Management Issues, Opportunities or Challenges:

Survey Methods

There were no mountain lion targeted surveys conducted. No mountain lions were observed during aerial surveys for deer and javelina. 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 2012 mountain lion harvest summary indicated five animals were harvested; only three females and a single male were identified. The last unknown sex animal cannot be reported on this recommendation as there are no cells to enter the unknown harvest. Cementum ageing is still ongoing for 2012 harvest. The female harvested in 2011 was cementum aged at 2 years of age. Harvest is expected to increase with the addition of two known trappers in 20C around Yarnell.

Depredations

There were no depredation events in 2012.

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: 2012/13

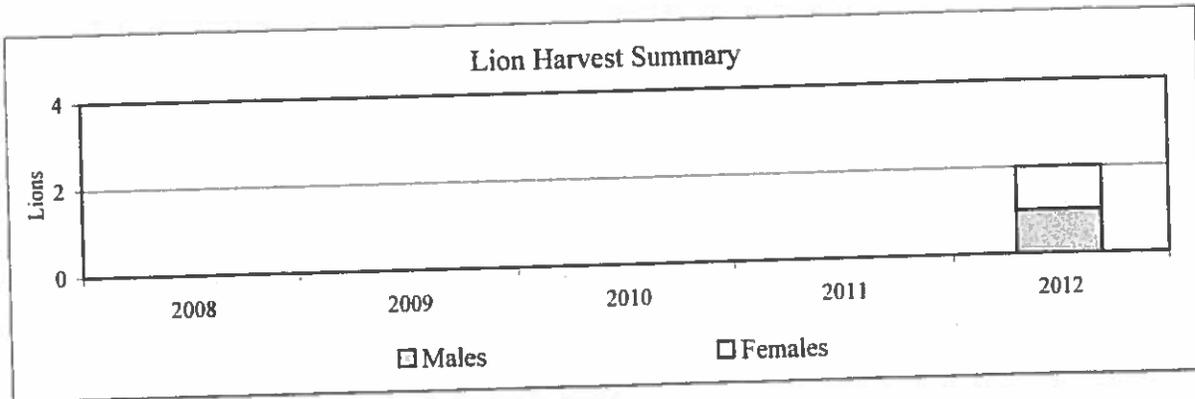
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	0	0	0		#DIV/0!	#DIV/0!
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	1	1	2			
2-Year Mean					#DIV/0!	#DIV/0!

Management Considerations:

#DIV/0!

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Hunt Recommendation:

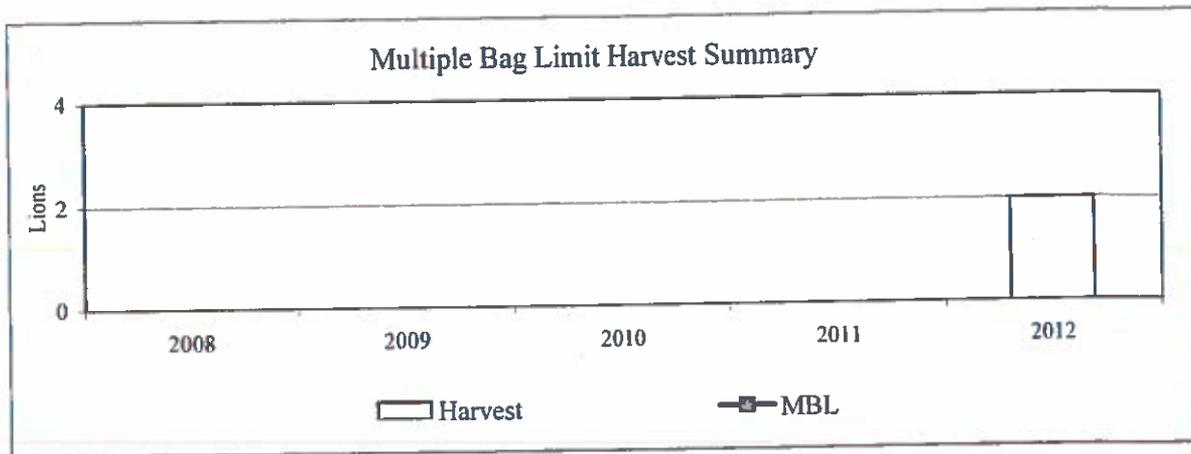
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 to June 30, 2014	39	None	None
	General, daylong, bag limit of 3			

Submitted by: T. Raspiller
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/11/13



Significant Management Issues, Opportunities or Challenges:

In the spring of 2012 the contracts branch began trapping lions on the SDNM in GMU 39E. The project is funded by BLM and is looking at movement corridors between the SDNM and surrounding areas. At this point no lions have been successfully captured and the project is currently on hold until more funding can be secured. Continued photo monitoring near trap locations has documented three different lions including one mature tom. It is believed that the mature tom may have been the lion killed by a motorist along I-8 this winter. This winter we received a report of a fresh lion kill near the Painted Rock Dam after an archery hunter jumped the lion off of the carcass. A trapping effort was then conducted with no success.

This winter a fifth road kill lion was reported along I-8 near mile post 133. This lion appeared to be heading south from GMU 39 into 40A. The harvest information for this lion was reflected in the 40A recommendation. In 2010, a lion was photo trapped in a wash of the North Maricopa Mountains. In 2009, one female lion was photo trapped with two yearling lions in the South Maricopa Mountains. More recently, two separate lions have been photo trapped in the North Maricopa Mountains since department biologists began their trapping effort.

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 this summer 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 summer photo monitoring will continue in the North and South Maricopa Mountains and the trapping effort will continue when funding becomes available.

Unit(s): 40A

Species: Mountain Lion

Year: 2012/13

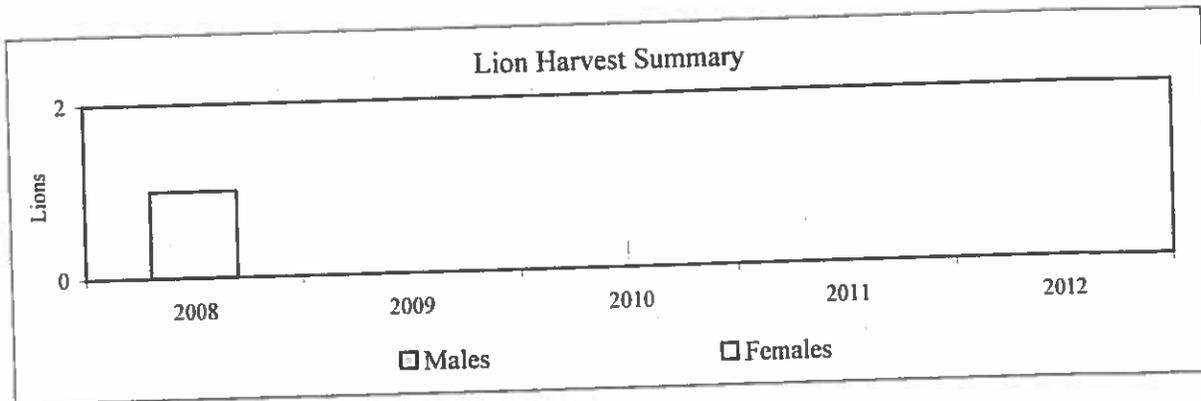
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	0	1	1	0	0%	NO
2009	0	0	0	0	#DIV/0!	#DIV/0!
2010	0	0	0	0	#DIV/0!	#DIV/0!
2011	0	0	0		#DIV/0!	#DIV/0!
2012	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 to June 30, 2014	40A	None	None

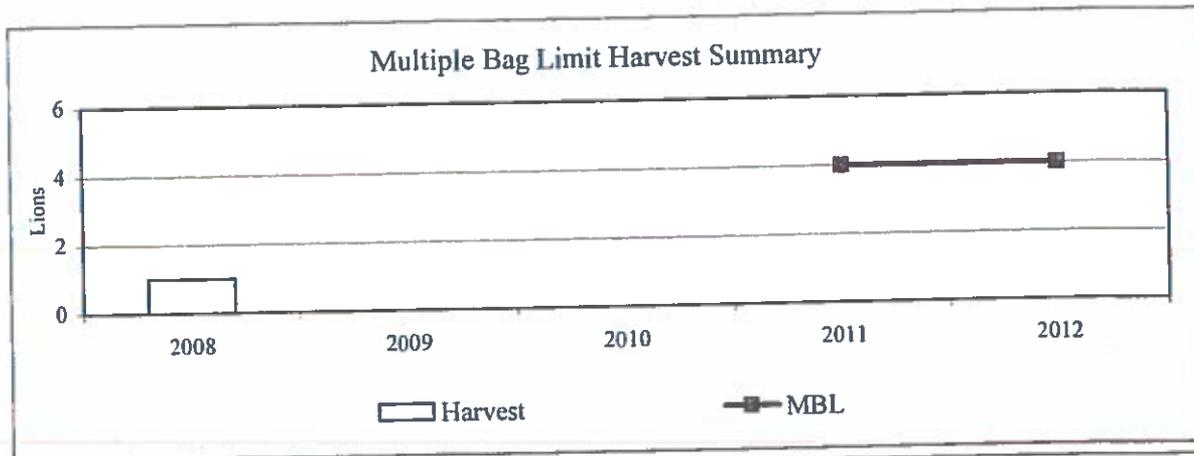
Submitted by: T. Raspiller
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/14/13



Significant Management Issues, Opportunities or Challenges:

Over the past four summers, trail cameras have photo-trapped multiple lions across BMGR. In 2009, two separate females were photo trapped with twin kittens each. In addition, in 2008 several lions were also photo-trapped throughout the Vekol Valley area. Over the past several years, ADOT employees have reported four lion road kills along Interstate 8. A fifth lion road kill was documented along I-8 this year near milepost 133. This was a mature tom that appeared to be heading south from the Maricopa Mountains into GMU 40A.

Biologists within the contracts branch are conducting a BLM funded study looking at the movement corridors of lions on the SDNM. As a part of this project biologists began snaring lions in GMU 39E but the project is currently on hold until further funding can be secured. As a part of the project regional personnel deployed 4 snare sets south of I-8 in GMU 40A. Due to the large amount of illegal activity in this area trap alarms were used at all 4 of the snare locations and they were only open for a short period of time as the alarms began malfunctioning. During the time period we documented 3 different lions near the snare locations but all of the traps were closed at those times.

Over the next year department personnel are looking into developing an adaptive lion management plan for 40A. We are currently uncertain if such a plan can be implemented due to the amount of manpower necessary and the lack of available trap alarms. Regional protocol requires that law enforcement officers provide security escorts for non-commissioned employees in GMU 40A and recommends that officers work in pairs in a large portion of the unit. These requirements greatly increase the amount of manpower necessary to implement such a plan.

Regional Notes:

The multiple bag limit objective was set to temporarily reduce the number of lions to allow the existing bighorn sheep population to recover to sustainable numbers. The harvest objective has never been reached and was implemented in 2005. The dry terrain of the Sonoran Desert makes it very difficult to hunt lions with dogs. Since the multiple bag limit has been implemented the only lion harvested was taken by a predator hunter using calls. The recent implementation of the day long hunting hours has not led to the successful harvest of a lion in the district.

The bag-limit was derived from estimated lion populations based on preferred habitat and incidental observations. A best educated guess was used at the time because time, manpower, and resources were not available to complete track surveys or any other reliable survey method.

In 1993, the department estimated lion densities for GMU 40A ranging from 0 to 16 in about 1030 sq. mi. In 2004, the average lion densities ranged from 7 to 26 in about 1082 sq. mi. Today, game trail cameras has allowed us to easily confirm more than seven lions exist throughout this unit. While photo trapping several solitary lions throughout the unit, two separate females with kittens were also photo trapped. Despite the removal of cattle from the northern half of GMU 40A and a low prey density, based on our deer-javelina and bighorn surveys; lions are still prospering.

The only lion killed in GMU 40A this year was a road-kill along Interstate 8.

Unit(s): 40B

Species: Mountain Lion

Year: 2012/13

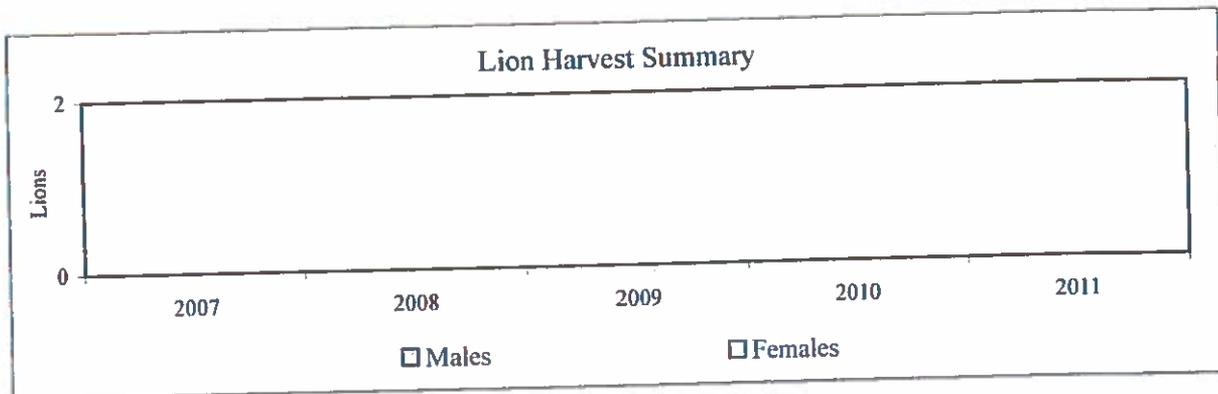
Harvest Summary:

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:

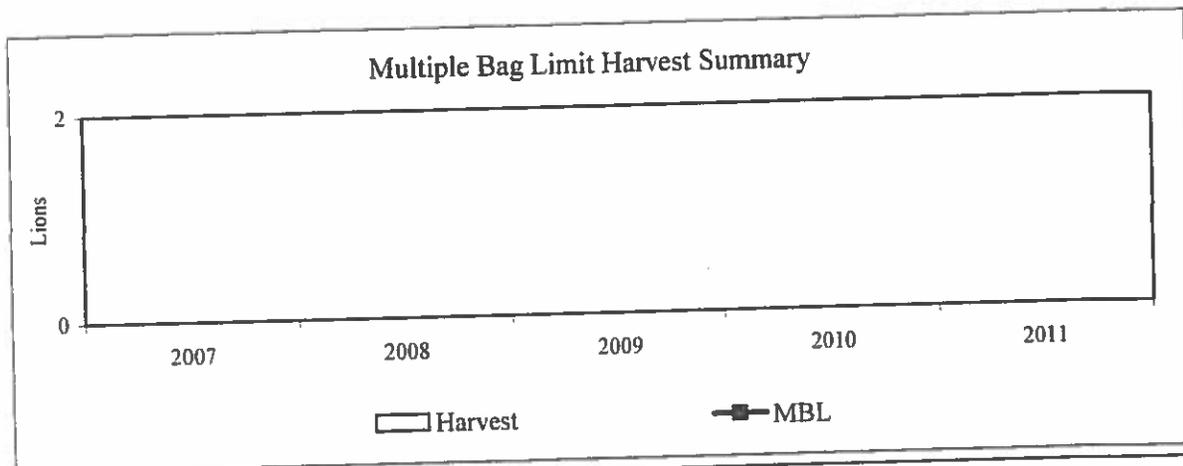
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014	U-40B	None	None

Submitted by: Scott Fischer
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/11/13



Significant Management Issues, Opportunities or Challenges

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.

Recently (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 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 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. Both incidents were confirmed through track identification.

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 15 years there have been three confirmed sightings of a Mountain Lion in the unit. A trail camera survey was conducted in 2002 on a water tank at the southern extent of the Tinajas Altas Mountains near the United States / Mexico border. During that camera survey a lion was positively identified while drinking at the water.

Since that time 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 sites of these reports and several cameras have been placed on waters near the reported areas with no successful capture of lion images until the summer of 2012.

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 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.

It is believed that it is very unlikely a lion will remain in the unit due to lack of a primary prey source. Mule deer do occur in this unit, however are of very low density and overall number. It has been documented that lions do occur occasionally however they are believed to be transitory in nature.

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 going to be put in place to ensure that any effects this lion may cause to the sheep population of the area will be noticed as soon as possible. This will

Unit(s): 40B

Species: Mountain Lion

Year: 2012/13

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. □

Unit(s): 41

Species: Mountain Lion

Year: 2012/13

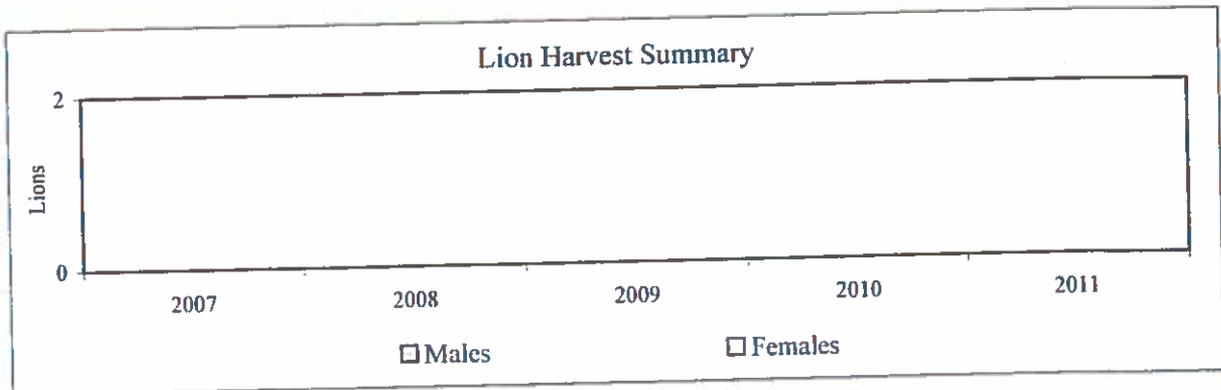
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2007			0		#DIV/0!	#DIV/0!
2008			0		#DIV/0!	#DIV/0!
2009			0		#DIV/0!	#DIV/0!
2010			0		#DIV/0!	#DIV/0!
2011			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
Liberal	July 1, 2013 - June 30, 2014	Unit 41	None	None

Submitted by: D. Urquidez
Wildlife Manager(s)

Amendments & Notes:

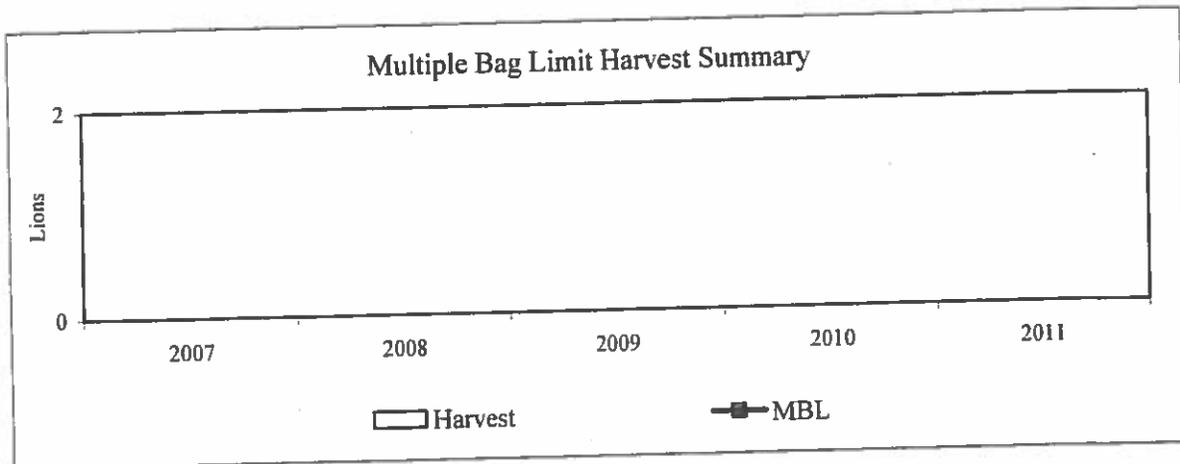
Game Branch Approval:

Date: 3/11/13

Unit(s): 41

Species: Mountain Lion

Year: 2012/13



A formal survey for lions was not completed within GMU 41. The region however accumulates data from sightings, lion kills, and road kills reported to the department. Some hunters and farmers have seen lions within the unit, however there have not been any lions taken in the unit by the general public. Lion prints have been documented by regional biologist along the Gila River adjacent to farm lands, as well.

In the past year, five collared lions were documented killing 6 deer and 12 bighorn sheep within the Kofa Mountain Complex Management Plan area. One lion was found dead shortly after being collared. Three lions were identified as offending lions and lethally removed. Currently, one lion is still at large with one adult ewe kill recorded. An interesting note, regional biologists have documented many lions killing coyotes and badgers periodically. Some lions have preferred bighorn sheep as part of their regular diet.

Previous data from our collared lions coupled with existing mountain lion research tells us lions are increasing the mortality rate to a bighorn sheep population already significantly stressed by the long-term, ongoing drought. Therefore, an ongoing monitoring program continues trapping lions and collaring them in a effort to identify lions that kill bighorn sheep. A multiple-bag limit for GM 41 had been set last year.

At this time, I recommend the lion hunt season remain the same till further information is made available.

Unit(s): 42

Species: Mountain Lion

Year: 2012/13

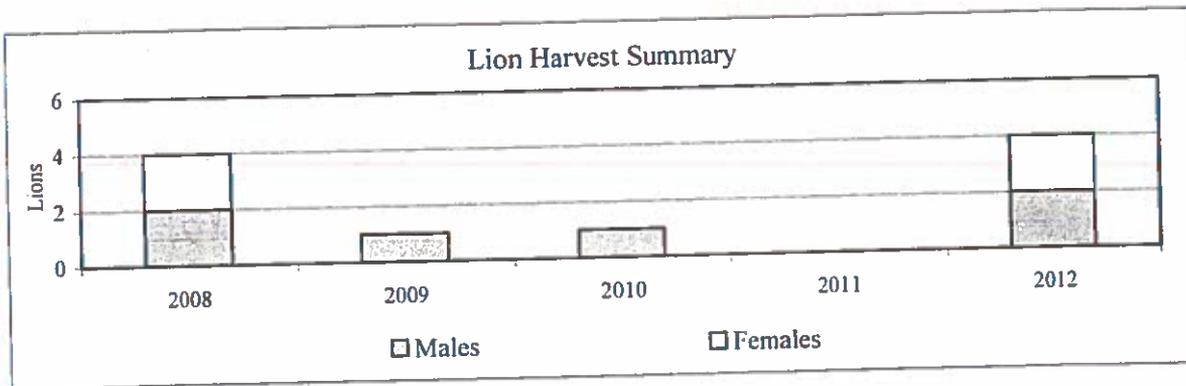
Harvest Summary:

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

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

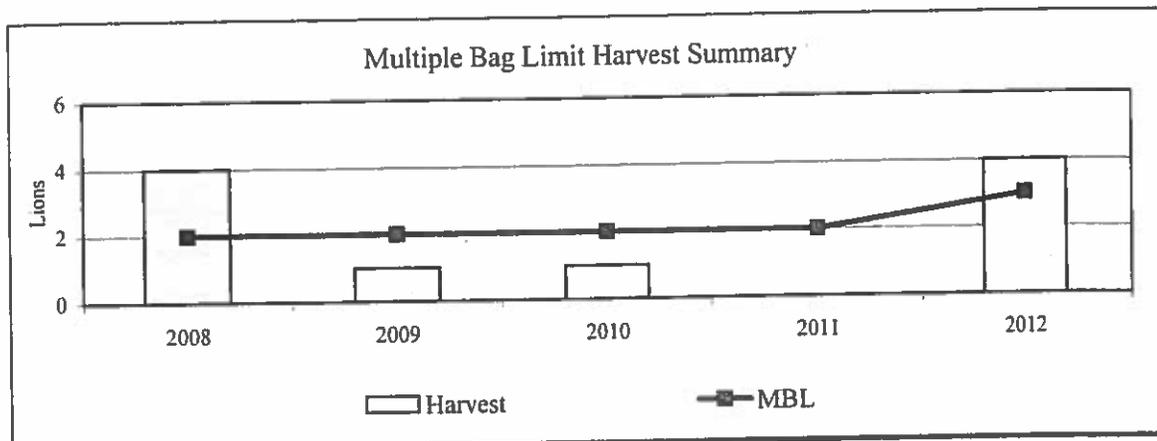
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014	42 Unitwide	None	None

Submitted by: Craig Heath
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/4/13



Significant Management Issues, Opportunities or Challenges:

For the past six years the southern portion of 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 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. Sixty percent of the known transplanted sheep mortalities have been attributed to lion kills (13/22). The most recent lion killed sheep was a 5 year old ewe killed in November of 2012 (ewe#43). Region IV has also initiated an Adaptive Lion Management Plan 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. Lion management efforts should help the ongoing bighorn sheep management goals in the Big Horn and Belmont Mountains.

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: 2012/13

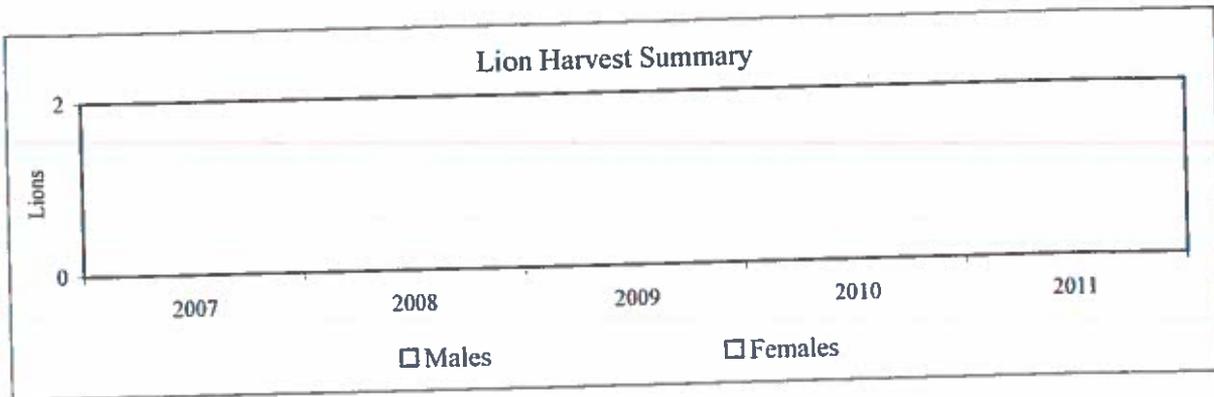
Harvest Summary:

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

Management Considerations:

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Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014	43A	None	None

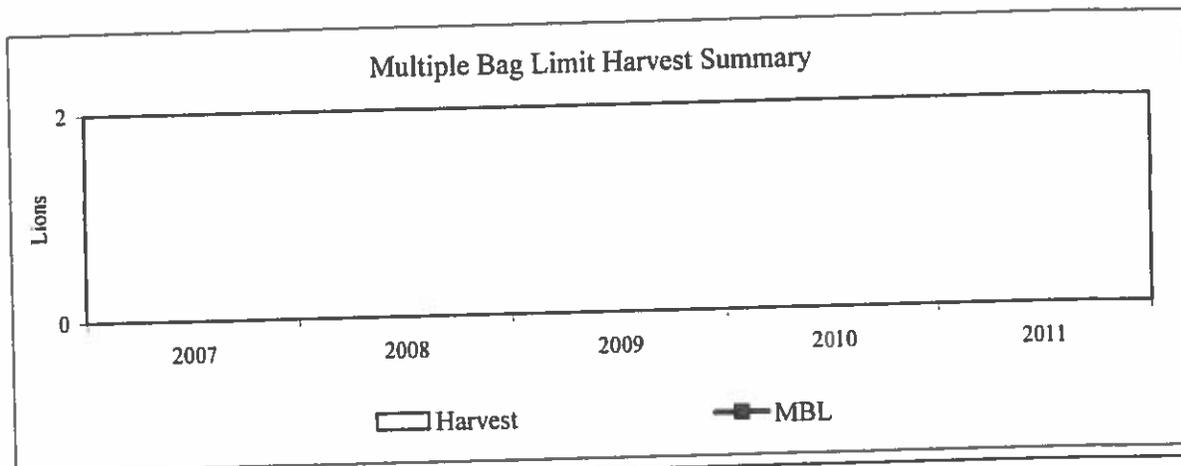
Submitted by: C Shanley
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/14/13



Management Notes:

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. In May of 2012, there was a call received from dispatch regarding a collared mountain lion that was injured in Ehrenberg. A young mountain lion that had been collared by a civilian and tribal member of the CRIT Reservation was retrieved, but subsequently died of trauma injuries consistent with vehicular collision. During the course of the investigation that followed this incident, local farmers and residents of the area stated that mountain lions are regularly observed in the area, mainly in the Spring. There has been one unsubstantiated report of a mountain lion near Quartzite in December 2012.

It is recommended that 43A should continue to be managed under the liberal season with a bag limit of 3 lions.

Unit(s): U43B

Species: Mountain Lion

Year: 2012/13

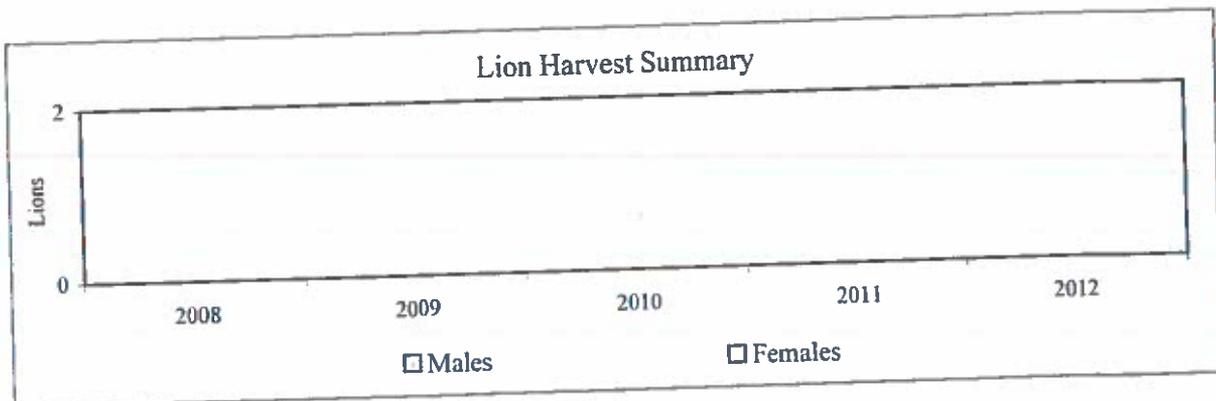
Harvest Summary:

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

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

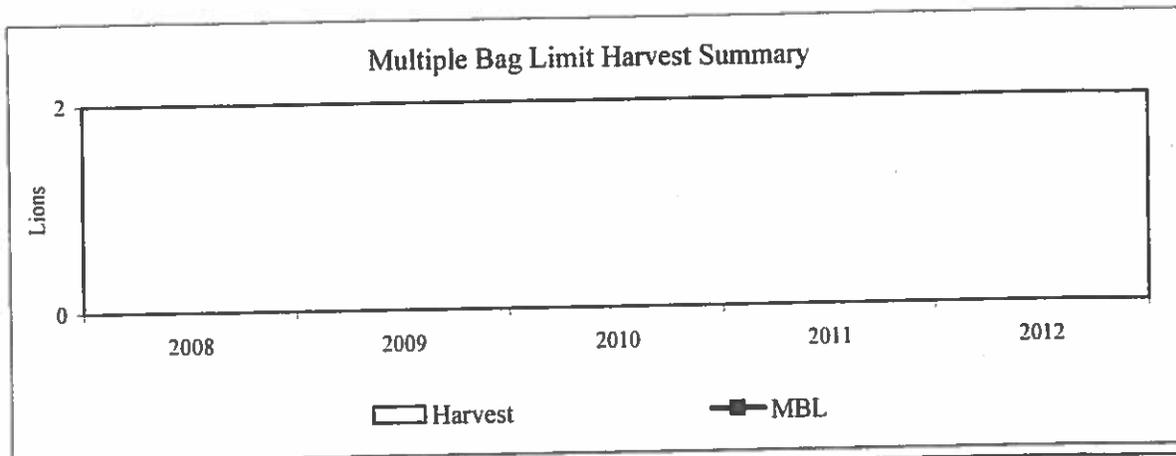
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014	43B	None	None

Submitted by: A. Nemlowill
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/11/13



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

Mountain lions are occasionally present in U43B; however, it is not believed that there is a stable resident population of significant size. In the summer 2011, a mountain lion was photographed on catchment 534 in close proximity to the Chocolate Mountains. Two additional cameras were deployed in the Trigo Mountains and on Mohave Peak for the Summer-Winter 2011, and periodically in the Trigo Mountains in 2012. No lions were photographed at these water developments.

In 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 collard 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 2012.

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 lion 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.

Unit(s): 44A

Species: Mountain Lion

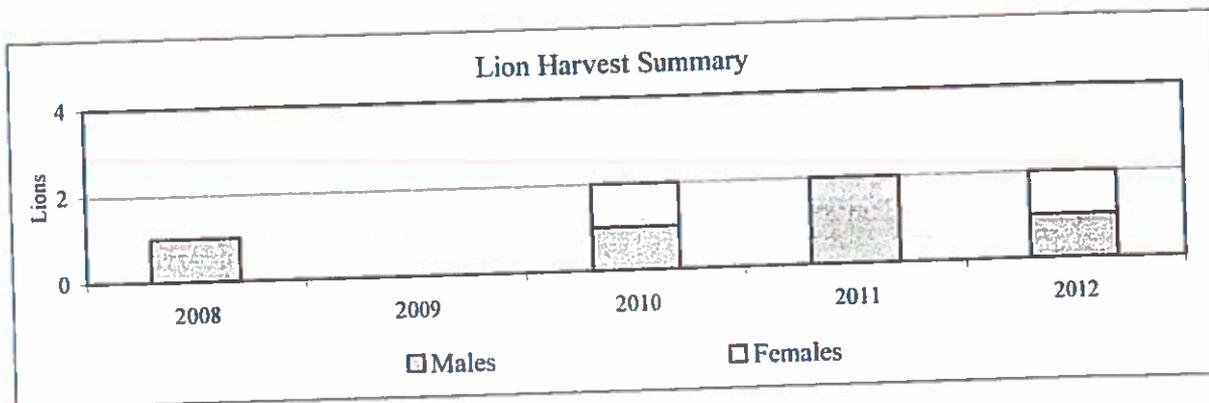
Year: 2012/13

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	1	0	1	N/A	#VALUE!	#VALUE!
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			
2-Year Mean					0%	NO

Management Considerations:

*Continue Single Unit Management
*No Female Harvest Limit Indicated



Hunt Recommendation:

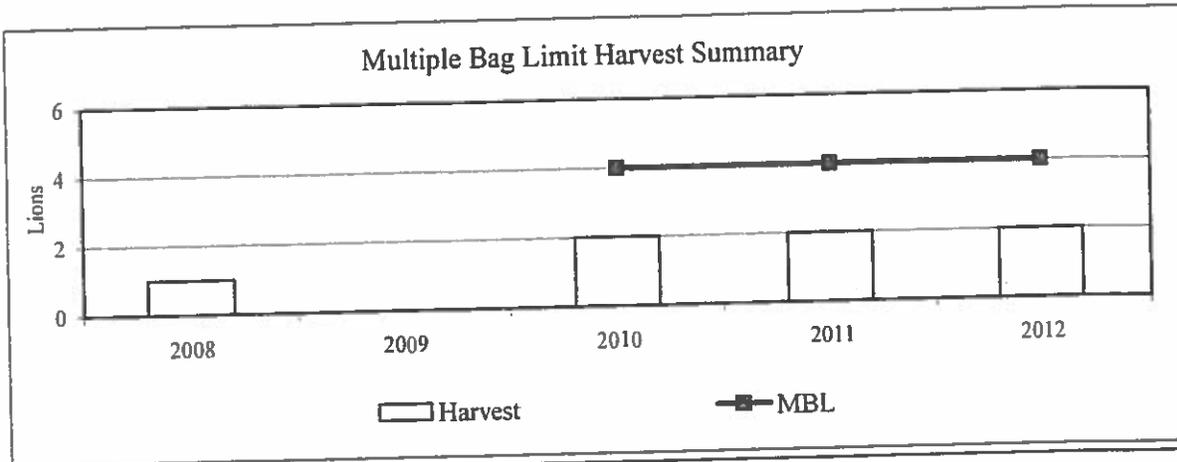
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014	Unit 44A	None	None

Submitted by: S. Kohnke & C. Herbert
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/4/13



This recommendation covers mountain lion management activities for:

Calendar Year 2012

Survey Notes/Occurrence Records

-No mountain lions were observed during aerial surveys.

-Five mountain lions were 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

-RM04 killed a bighorn sheep on 12/25/12 in the Robson's Block of the Harcuvar Mountains but lethal removal will not occur until 2013.

-An uncollared mountain lion was photographed at Walt Collins Catchment on 12/5/12; the sex and age is unknown.

-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.

Hunt/Mortality Notes

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. Zero of the collared mountain lions, as part of the ALMP, died or were lethally removed from unit 44A in 2012. In the last six years eight 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.

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 sheep ewes.

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.

Unit(s): 44B

Species: Mountain Lion

Year: 2012/13

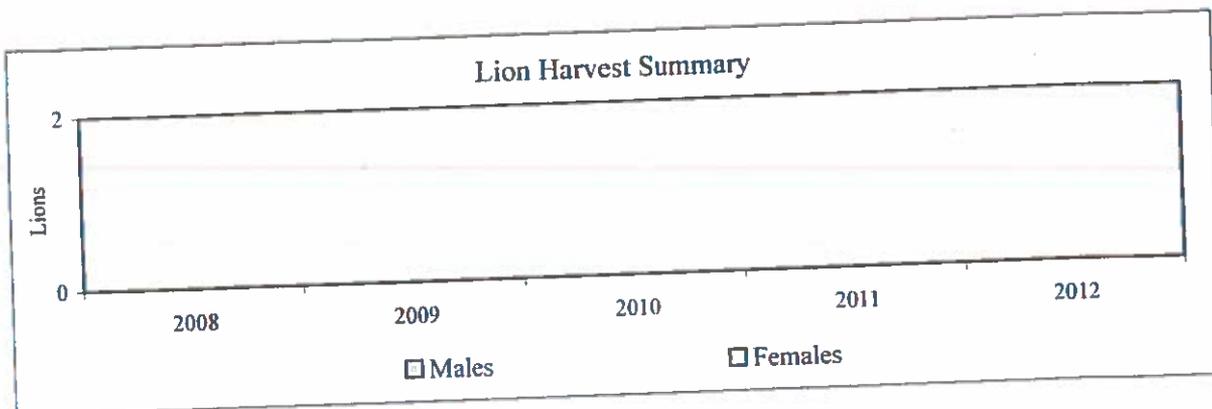
Harvest Summary:

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

Management Considerations:

#DIV/0!

#DIV/0!



Hunt Recommendation:

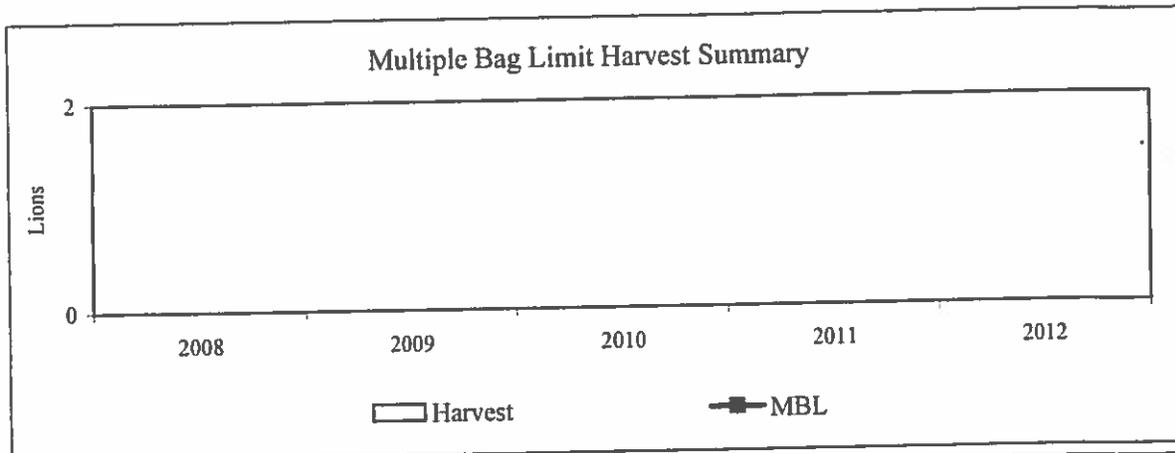
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Liberal	July 1, 2013 - June 30, 2014	44B	None	None

Submitted by: D. PFLEGER
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/13/13



Significant Management Issues, Opportunities or Challenges:

There has been no reported sport harvest of Mountain Lion in unit 44B in the past 5 years.

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. On 2/20/12 a mountain lion (male) KM06 was captured and collared in the New Water Mountains (GMU 44BS). The lion was lethally removed on 4/13/2012 after verifying predation on two bighorn sheep.

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: 2012-13

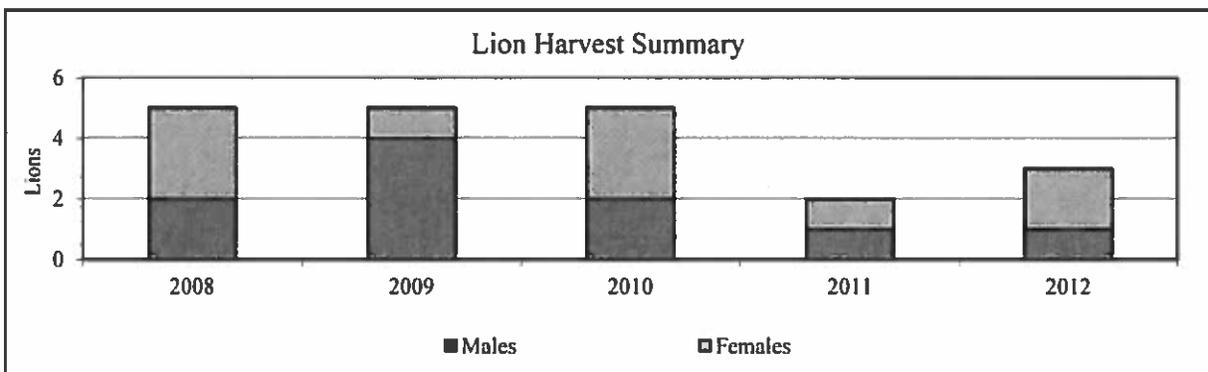
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	2	3	5	3	60%	YES
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			
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, 2013 - June 30, 2014		None	None
Multiple Bag Limit (MBL)	July 1, 2013 - June 30, 2014	Unit 28 South of Highway 70	8	None

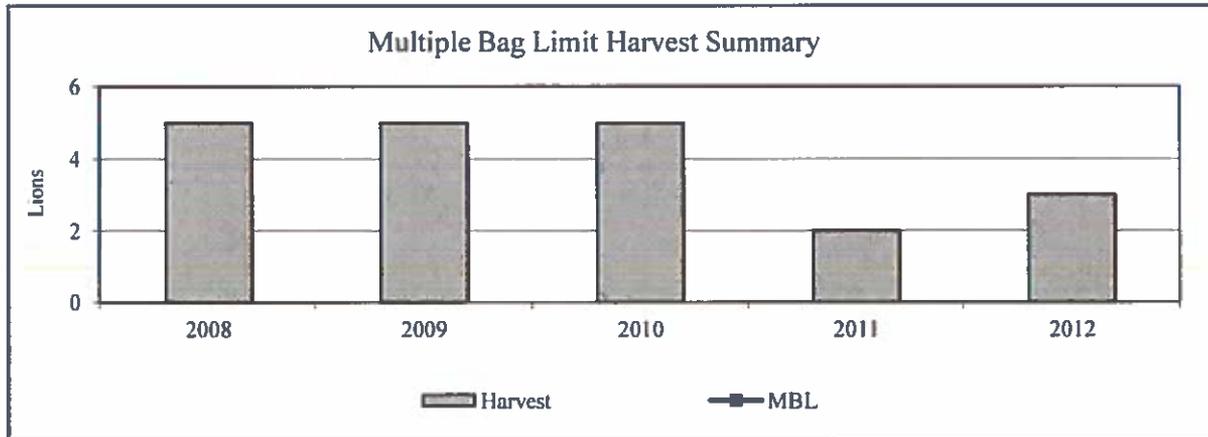
Submitted by: Matt Peltó
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/5/13



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 from one ranch in the area. This ranch has confirmed that at least 8 head of cattle have been lost to lions in the past 1.5 years. This figure is very conservative because the area is rough and depredated cattle are usually not found soon enough to determine the cause of death. Another number from the same ranch is that Wildlife Services has made 12-15 trips to the ranch in the last 1.5 years to track/remove lions. Unit 28 had 3 sport harvest and 9 depredation harvest lions during 2012. These harvest numbers are below the 5-year average of 4 for sport harvest and the 10-year average of 11 depredation harvested lions. In 2012 one unit (Unit 32 with 9) had the same number of depredations and only one unit (Unit 31 with 13) had a higher depredation harvest than Unit 28. The depredation harvest in Unit 28 suggests that there is additional opportunity for sport harvest.

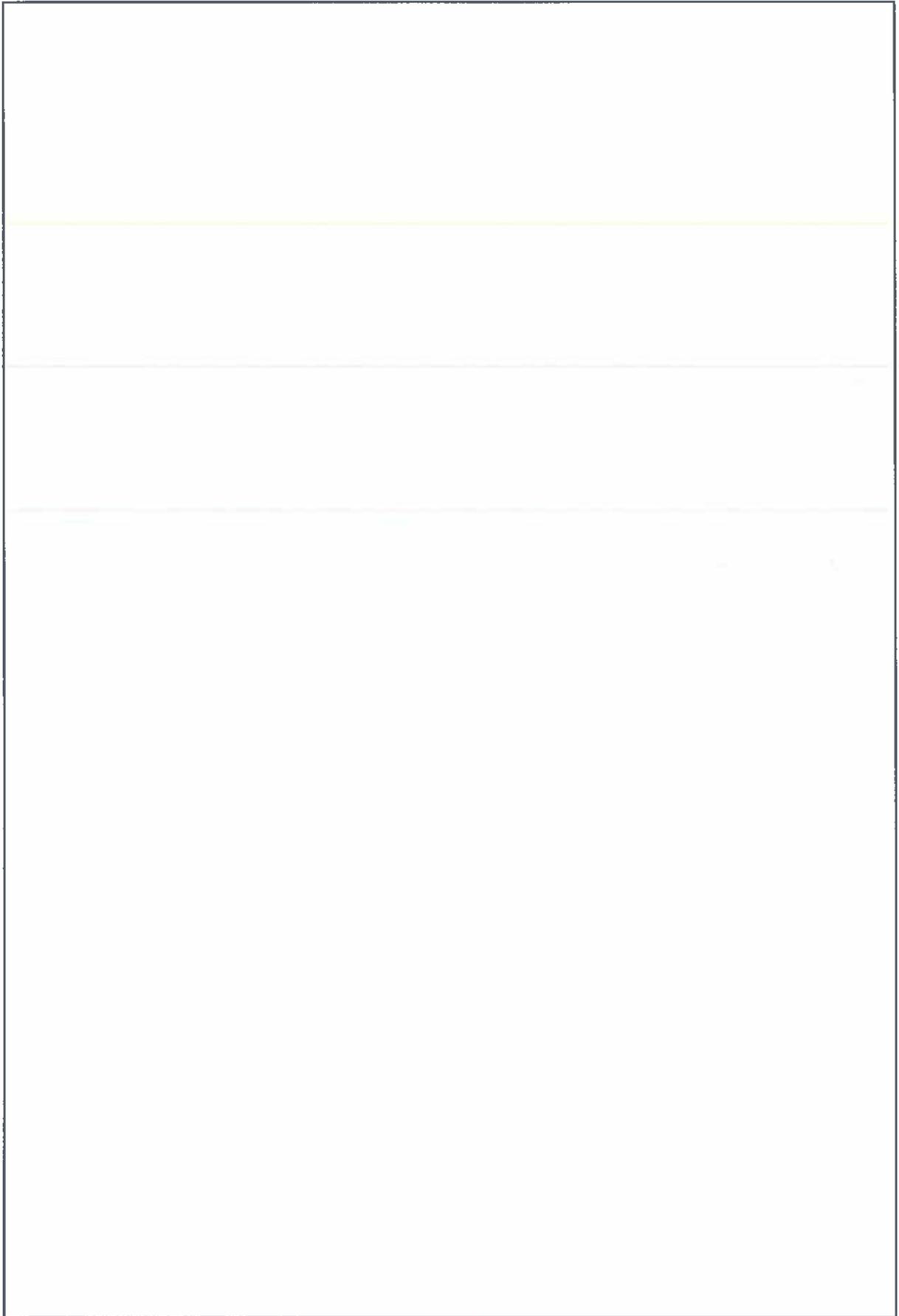
There are currently 2 trail cameras set up in this area in an attempt to capture data on desert bighorn sheep. One of these cameras has captured photos of several lions in sheep habitat. The 2012 sheep hunter reporting seeing a lion on Orange Butte and reported getting several trail camera pictures of 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 added 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: 2012/13

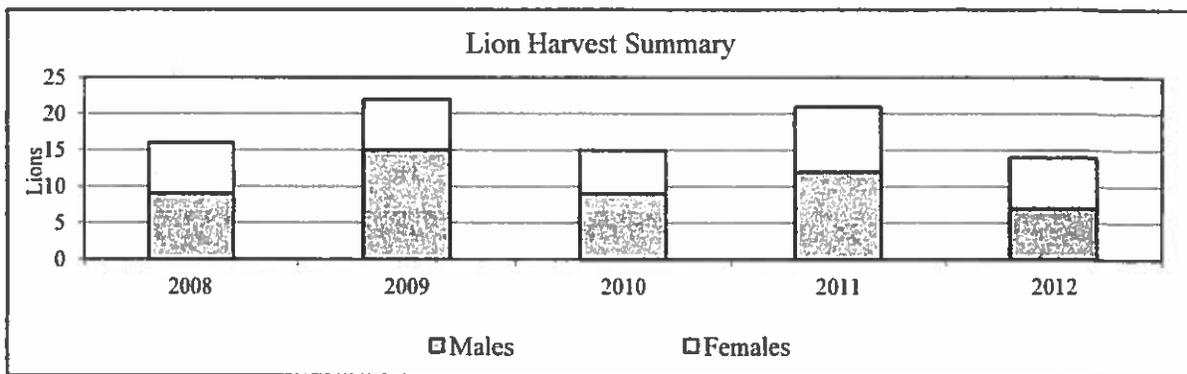
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	9	7	16	6	38%	YES
2009	15	7	22	5	23%	NO
2010	9	6	15	3	20%	NO
2011	12	9	21		0%	NO
2012	7	7	14			
2-Year Mean					8%	NO

Management Considerations:

*Continue Single Unit Management

*No Female Harvest Limit Indicated



Hunt Recommendation:

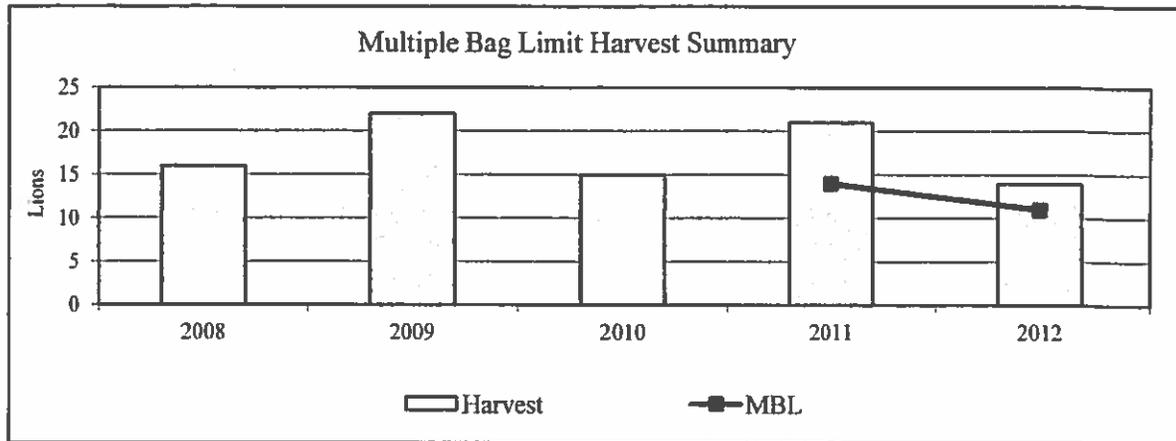
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Multiple Bag Limit (MBL)	July 1, 2012 - June 30, 2013	Aravaipa-Galiuro Mountains Management Area	20	None

Submitted by: J. Bacorn
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/5/13



GMU 31-32 Mountain Lion-Significant Management Issues, Opportunities or Challenges:

Mountain Lion Harvests

There were 14 lions recorded as sport harvests in GMU 31-32 in 2012, 4 from GMU 31 and 10 from GMU 32. The 5-year and 10-year average sport harvests are 17 and 16 lions, respectively (Table 1). Lions are also removed from GMU 31-32 under depredation laws authorized through ARS 17-302. From 2003-2007, 34% of the statewide depredation lions occurred in GMU 31-32 (Mountain Lion and Bear Conservation Strategies Report). In 2012, 22 depredation lions were removed from GMU 31-32. The 5-year and 10-year average number of depredation lions removed from GMU 31-32 are 18 lions (Table 1).

A total of 36 lions were removed from GMU 31-32, the 5-year and 10-year averages are 35 and 33 (sport harvest and depredation). Total mountain lion removal, have been variable within GMU 31-32, with highs in 1988 and 2008 (Table 1 and Figure 1). Note the sport harvest and depredation removal appear to have an inverse relationship especially within the last 6 years (Figure 1).

A mountain lion Multiple Bag Limit (MBL) was established for GMU 31-32 in July of 2011. The MBL is established from July through June instead of a calendar year, therefore within a calendar year, there could be two MBL seasons. In 2011, 14 mountain lions were taken within the MBL area and in 2012, 11 mountain lions were taken within the MBL (table 1). Although a MBL was established, the sport harvest decreased in 2012 from the previous year and below the 5 and 10 year averages. During the same time period, the depredation take increased from the previous year and from the 5 and 10 year averages (table 1).

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 12 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 bighorn sheep population. The MBL Area included the entire area of both GMU 31 and 32. The lion MBL was established at 20 lions. This MBL structure was opened in June of 2011 and the MBL of 20 lions was reached in late January of 2012. Although the average number of lions harvested in all of GMUs 31 and 32 did not increase, there was a much more focused harvest around the habitat occupied by bighorn sheep in Aravaipa Canyon (about 12 removed compared to only a few in past years).

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. This new MBL area encompasses Desert Bighorn Sheep 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 Bighorn Sheep 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. With the knowledge that depredation lions are also taken within the Aravaipa-Galiuro MBL Area, the lion MBL was kept at 20 lions.

Recommendation

Continue the mountain lion MBL of 20 lions within the established Aravaipa-Galiuro MBL Area.

Also recommend that the Mountain Lion MBL not be continued indefinitely, it is intended to be used as a temporary management action to increase the bighorn sheep population. However, keep the structure in place for a minimum of 3 years (beginning 2011) to properly assess the effectiveness of the current MBL structure. The following management objectives will be evaluated after 2 survey cycles:

- A measureable increase in observed total population numbers of Desert Bighorn Sheep, and/or
- A measureable increase in observed lamb:ewe ratio, and/or
- 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.

The Department will continue to work with Sportsmen, other conservationists and landowners to accomplish the objectives listed above.

GMU 31/32 Mountain Lion

Table 1.

YEAR	Mountain Lion Sport Harvest and Depredation GMU 31-32						Total 31/32	31/32 MBL
	SPORT 31	DEPREDATION 31	SPORT 32	DEPREDATION 32	SPORT 31/32	DEPRED 31/32		
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	14
2012	4	13	10	9	14	22	36	11
5 yr ave	5	9	13	9	17	18	35	
10 yr Ave	5	10	10	8	16	18	33	
Total	96	181	186	135	282	316	598	25

Figure 1.

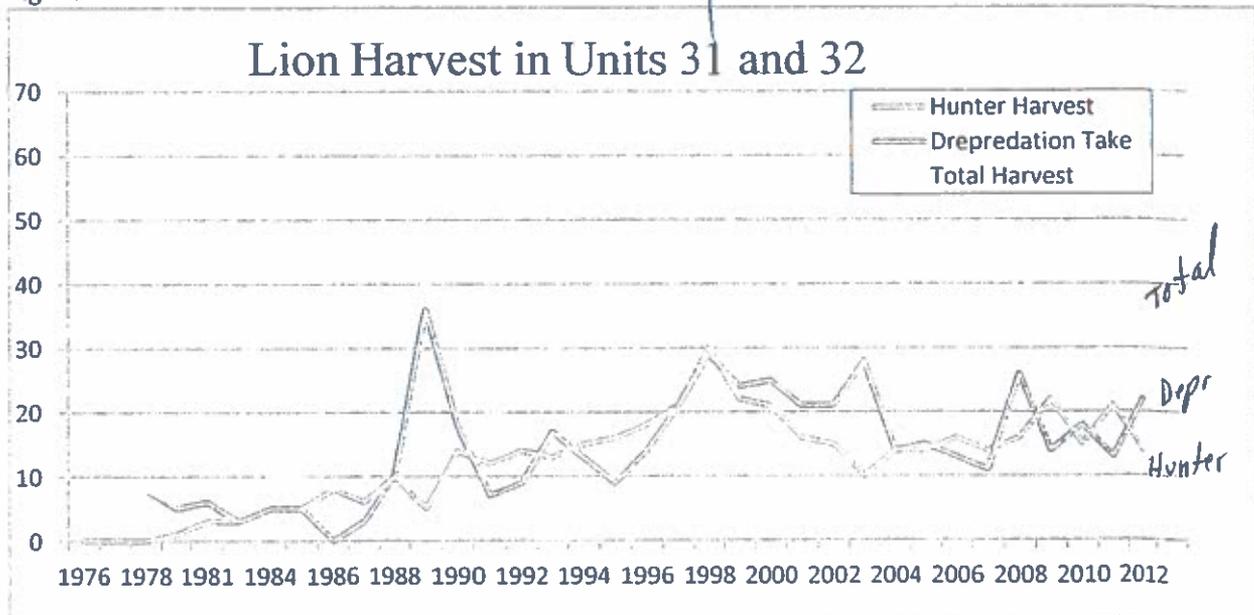


Figure 3.

AVERAGED PRECIPITATION FOR WILLCOX-BENSON-CASCABEL-SAFFORD												GMU 32		
SUMMARY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	% AVE
YEAR														
Ave	1.04	0.89	0.68	0.26	0.30	0.41	2.41	2.57	1.39	1.28	0.63	1.06	12.92	
2004	0.95	0.75	1.65	1.53	0.00	0.15	2.09	2.39	0.97	0.48	0.71	0.72	12.36	96%
2005	1.71	1.84	0.20	0.25	0.45	0.00	1.85	2.19	0.09	0.26	0.00	0.16	9.78	76%
2006	0.16	0.01	0.25	0.00	0.04	0.50	4.16	2.36	1.74	0.82	0.01	0.32	10.67	83%
2007	0.94	0.32	1.29	0.21	0.26	0.30	3.24	3.15	0.79	0.45	0.35	1.09	12.38	96%
2008	0.44	0.49	0.06	0.00	0.49	0.17	3.90	1.98	1.50	0.17	0.36	0.57	10.11	78%
2009	0.54	0.29	0.35	0.12	0.50	0.65	1.76	1.46	0.62	0.15	0.26	0.46	7.14	55%
2010	2.19	1.53	0.44	0.21	0.01	0.02	2.95	3.89	0.39	0.43	0.00	0.56	12.62	98%
2011	0.06	0.30	0.01	0.04	0.00	0.10	2.51	2.22	1.43	0.07	0.29	1.16	9.59	74%
2012	0.94	0.26	0.27	0.08	0.14	0.21	3.84	1.75	1.05	0.01	0.17	1.19	9.20	71%
2013														

Figure 4

Winter Rains October-March						6 Mo	
	Oct-Dec	Jan-Mar	% ave	% ave			
Ave	2.98	2.61	64%	143%	5.59	5.65	101%
2004/05	1.91	3.74	14%	16%	0.83	0.83	15%
2005/06	0.41	2.55	39%	98%	3.70	3.70	66%
2006/07	1.15	0.98	63%	38%	2.86	2.86	66%
2007/08	1.88	1.18	37%	45%	2.27	2.27	41%
2008/09	1.10	4.17	29%	160%	5.03	5.03	90%
2009/10	0.86	0.37	33%	14%	1.35	1.35	24%
2010/11	0.98	1.47	51%	56%	2.99	2.99	54%
2011/12	1.52						
2012/13							
Ave					3.10	3.10	55%

Figure 5

Summer Rains April-September						6 Mo	
	Apr-Jun	Jul-Sep	% ave	% ave			
Ave	0.97	6.36	71%	78%	7.34	7.34	77%
2005	0.69	4.93	56%	130%	8.81	8.81	120%
2006	0.55	7.18	79%	113%	7.95	7.95	108%
2007	0.77	7.38	67%	116%	8.03	8.03	109%
2008	0.65	3.84	130%	60%	5.10	5.10	70%
2009	1.27	7.23	24%	114%	7.47	7.47	102%
2010	0.24	6.16	15%	97%	6.30	6.30	86%
2011	0.14	6.64	44%	104%	7.06	7.06	96%
2012	0.43						
2013							
Ave					7.04	7.04	96%

Unit(s): **20B** Species: Mountain Lion

Year: **2013/14**

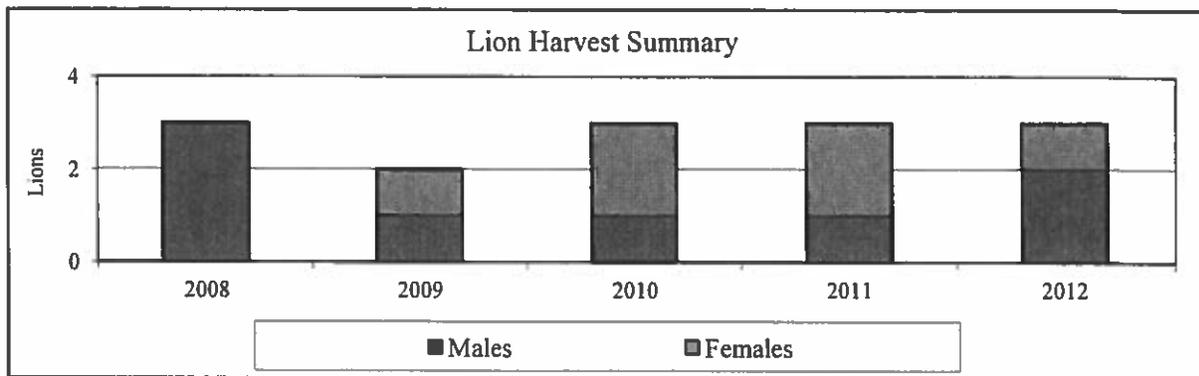
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (>3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	3	0	3	0	0%	NO
2009	1	1	2	0	0%	NO
2010	1	2	3	1	33%	NO
2011	1	2	3	2	67%	YES
2012	2	1	3			
2-Year Mean					50%	YES

Management Considerations:

*Evaluate Adjacent Unit Zone Management

*Consider Female Harvest Limit

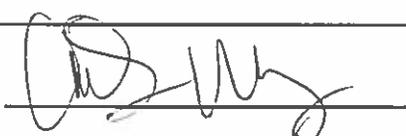


Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1 2013- June 30 2014	Unit 20B - Unitwide	None	None

Submitted by: R. BABEL
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:  Date: 3/7/13

Management Notes:

Mountain Lion Recommendation – Unit 20B

Submitted by: R. Babel

Open Season Dates: July 1, 2013 – June 30, 2014

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: Season Dates

Three (3) mountain lions were reported by sport harvest in 2012. The harvest comprised of 2 male lions and 1 female lion. The estimated age of the female taken was one year old and will lower the average percent of adult females taken that are greater than three years old.

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	-

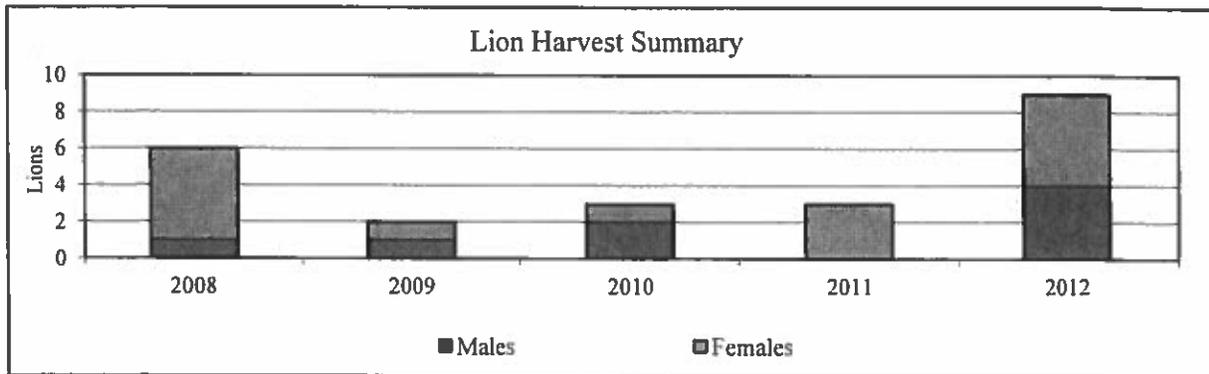
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	1	5	6	1	17%	NO
2009	1	1	2	1	50%	YES
2010	2	1	3	1	33%	NO
2011	0	3	3	1	33%	NO
2012	4	5	9			
2-Year Mean					33%	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		Unit 21 - Unitwide	None	None

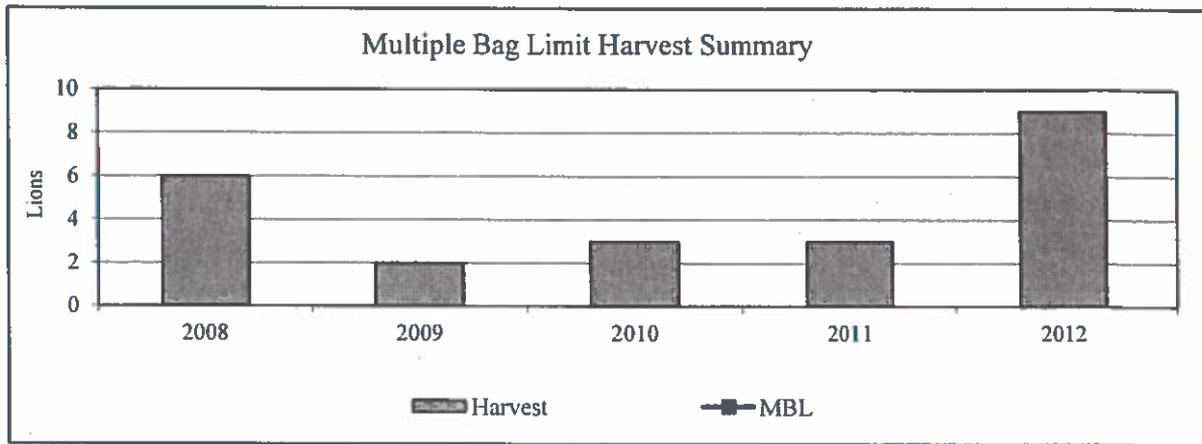
Submitted by: Kyle Cooper
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

[Handwritten Signature]

Date: 3/7/13



Significant Management Issues, Opportunities or Challenges:

Regional Notes:

This year the lion harvest increased in Unit 21. There is no reason to reduce the season at this time. I believe the lion population is healthy and supports the current hunt season.

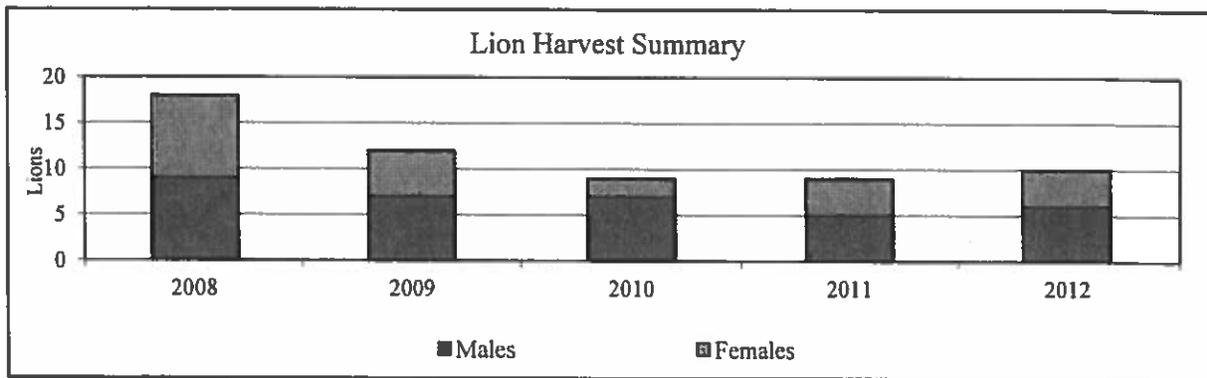
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	9	9	18	3	17%	NO
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			
2-Year Mean					17%	NO

Management Considerations:

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

What was out of MBC (IF.)



Hunt Recommendation:

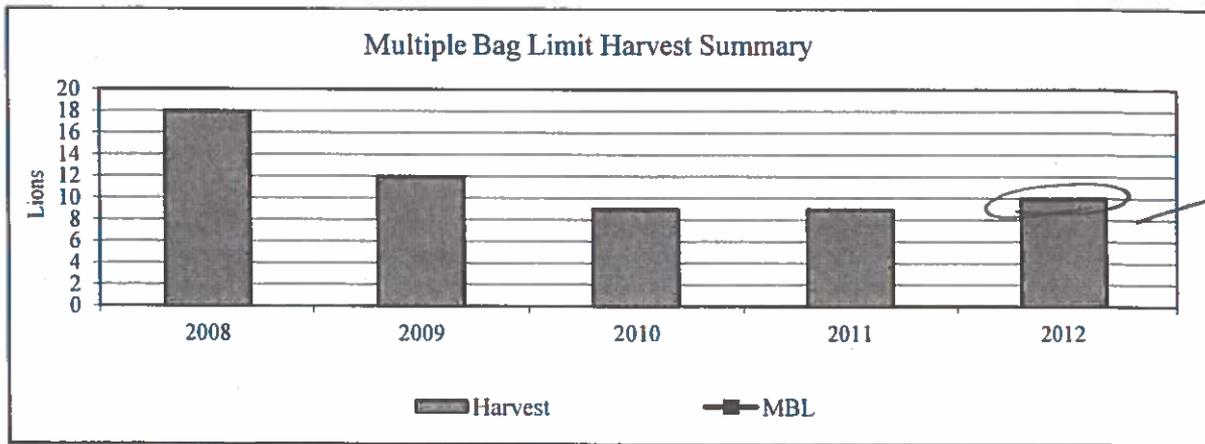
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2013 - June 30, 2014	Unit 22 - Unitwide	None	None
Multiple Bag Limit (MBL)	July 1, 2013 - June 30, 2014	Unit 22S (South of Hwy 87 and FR 143, West of Hwy	12	None

Submitted by: John Dickson
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval: _____

Date: _____



1
MBC

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 (6 male and 4 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.

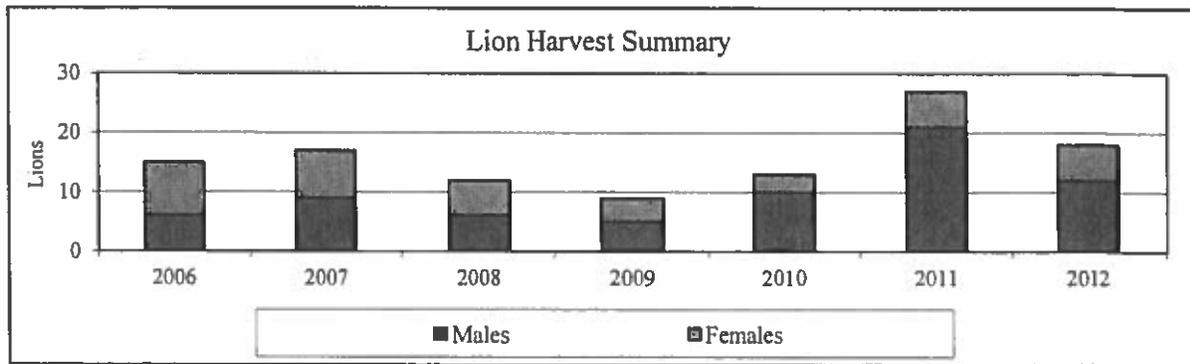
The General Daylong Shooting Hours (Multiple Bag Limit) hunt structure shall also remain unchanged, as Unit 22 will continue to be a potential source herd for future bighorn sheep translocation efforts within the State.

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (>3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2006	6	9	15	1	7%	NO
2007	9	8	17	3	18%	NO
2008	6	6	12	2	17%	NO
2009	5	4	9	3	33%	NO
2010	10	3	13	3	23%	NO
2011	21	6	27			
2012	12	6	18			
2-Year Mean					28%	NO

Management Considerations:

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

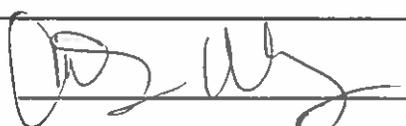


Hunt Recommendation:

Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July, 1, 2013 - June 30, 2014	Unit 23 - Unitwide	None	None

Submitted by: Dave Daniels
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:  Date: 3/7/13

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, 12 (2008), 9 (2009), 13 (2010), 27(2011) and 18(2012).

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

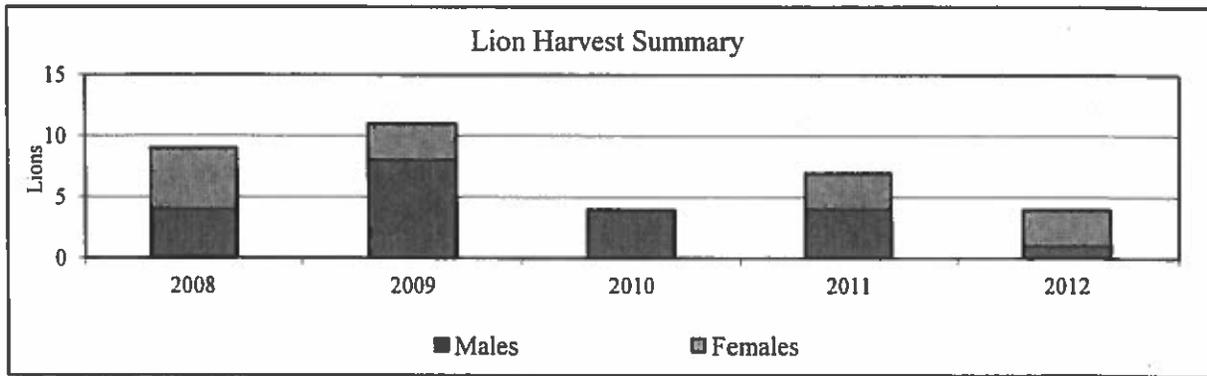
Conclusion: The mountain lion population in Unit 23 appears to be stable and healthy. The lion harvest does not appear to need more restrictions on harvest at this time. This year's harvest included 6 female and 12 male lions. Field observations include recognition that more mountain lions are killed during periods of snow, as hunters utilizing hounds are more predominant and successful. No change from the current hunt structure is recommended.

Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	4	5	9	3	33%	NO
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			
2-Year Mean					0%	NO

Management Considerations:

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



Hunt Recommendation:

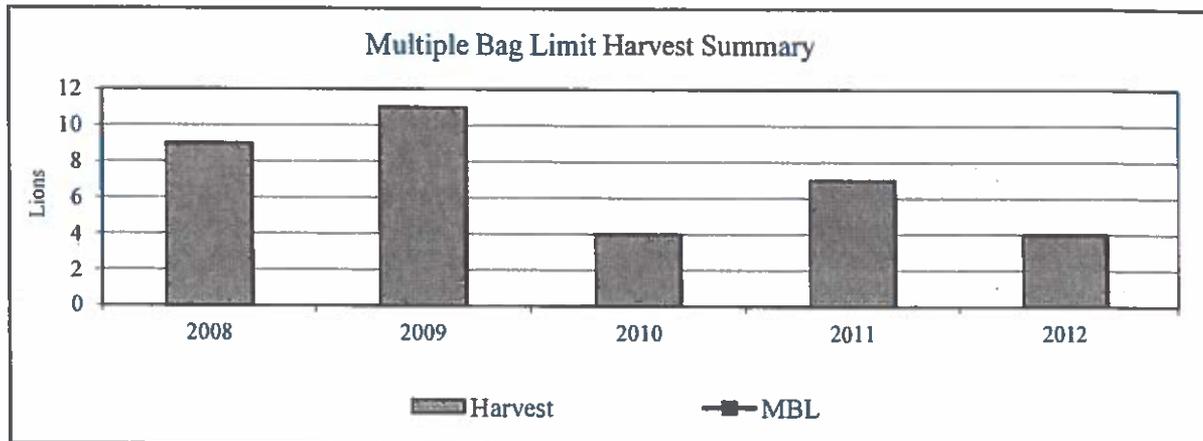
Season Type	Season Dates	Open Areas	MBL Target	Female Limit
Standard	July 1, 2013-June 30, 2014	Unit 24A - Unitwide	None	None

Submitted by: Danny Rodriguez
Wildlife Manager(s)

Amendments & Notes:

Game Branch Approval:

Date: 3/7/13

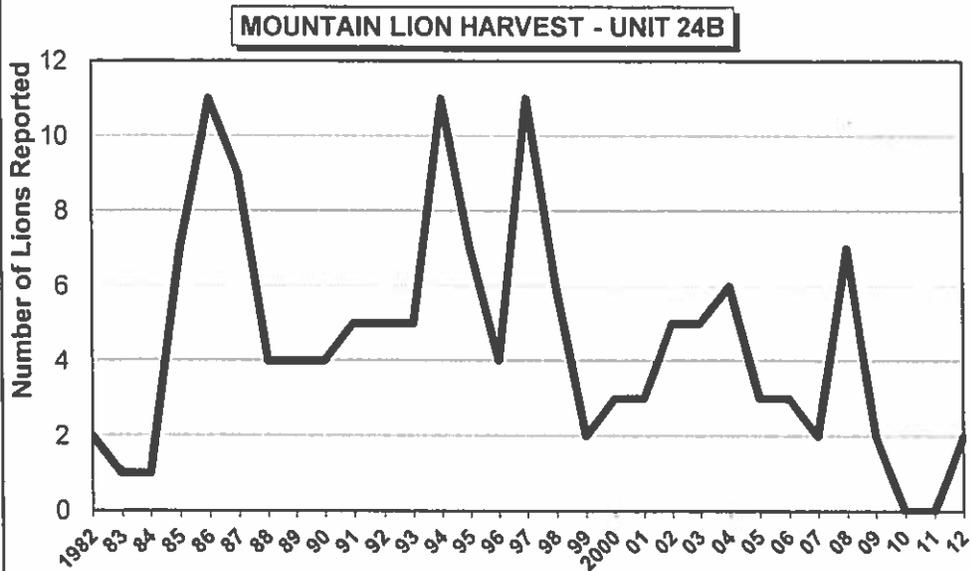
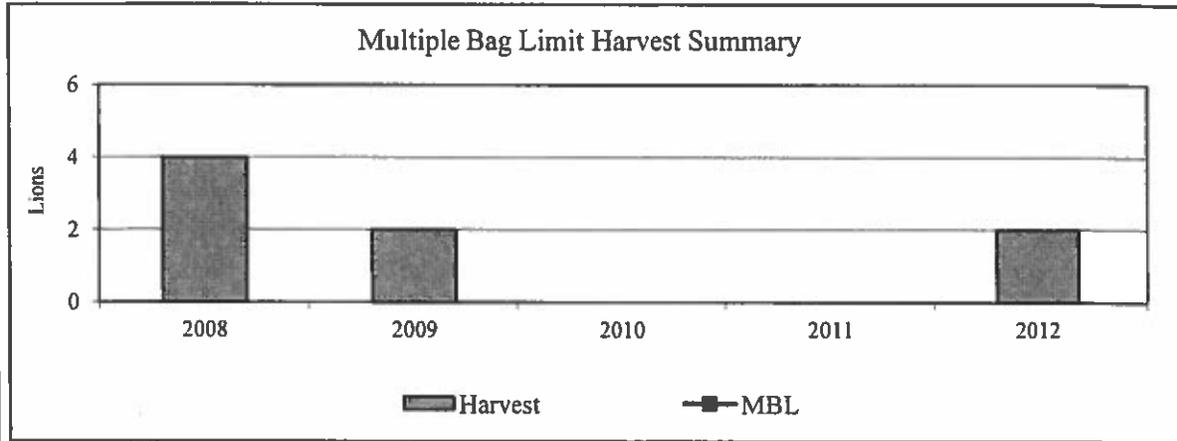


For 2012, a total of 4 lions were reported as sport harvested, of which 1 was male and 3 were females; For 2011, a total of 7 lions were sport harvested, of which 4 were males and 3 were females. There was also 1 road-killed male; for 2010, a total of 4 lions were harvested, of which all were males;

For 2009, a total of 11 lions were reported as sport harvest of which, 8 were males and 3 were females; in 2008, 4 males and 5 females were reported as sport harvest for a total of 9. In 2007, 8 males and 3 female lions were reported as sport harvest.

For 2010, the oldest male harvested was 10 and the youngest was 1 with an average age of 4. There was no tooth data available for females harvested in 2010; For 2009, the oldest male harvested was 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; Of the 9 lions harvested in 2008, tooth data was only available for 4 of them. The average age for lions harvested was 4 years old for males and 4.5 years old for females; The average age for lions harvested in 2007 is 2 years old for males and 3.5 years old for females; The average age for lions harvested in 2006 was 3 years old for males and 2 years old for females; In 2005, one lion was aged 3-4 years, one at 2-3 years, and two lions were 1-2 years old.

The unit is comprised of ~810 square miles, with ~650 square miles classified as medium lion density and ~160 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 24B continues to maintain a viable lion population. Although lion route surveys were discontinued in the Region in 1999, lion tracks and scats are observed throughout the unit, and reports of lion sightings are also common. Ranchers, hunters, and AGFD personnel commonly report lion sign and activity within the unit.

Unit(s): 37B Species: Mountain Lion

Year: 2012/13

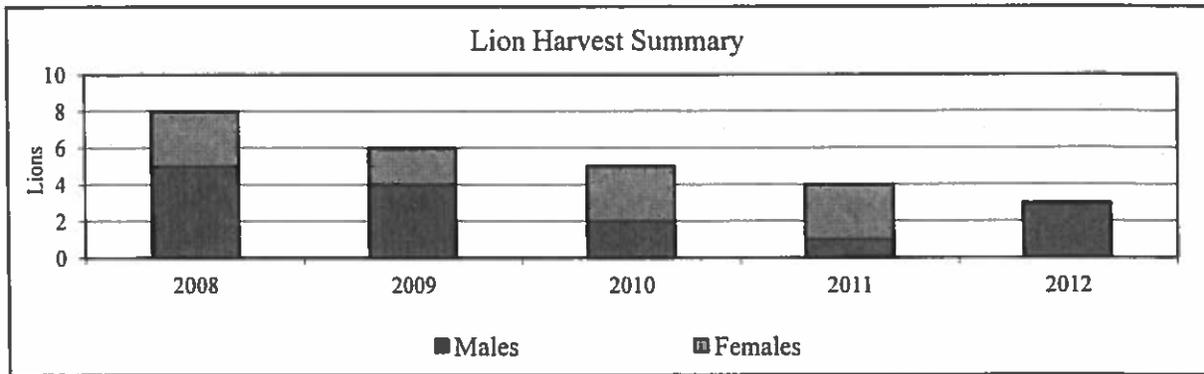
Harvest Summary:

Year	Male Harvest	Female Harvest	Total Harvest	Adult ♀ (≥3 yrs)	% Adult ♀ in Harvest	Adult ♀ Exceed 35% of Harvest?
2008	5	3	8	2	25%	NO
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			
2-Year Mean					11%	NO

*MBL
1 Male*

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 37B	None	None
Multiple Bag Limit (MBL)	July 1, 2013 - June 30, 2014	Unit 37B - North of the Gila River	4	None

Submitted by: Kriselle Colvin
Wildlife Manager(s)

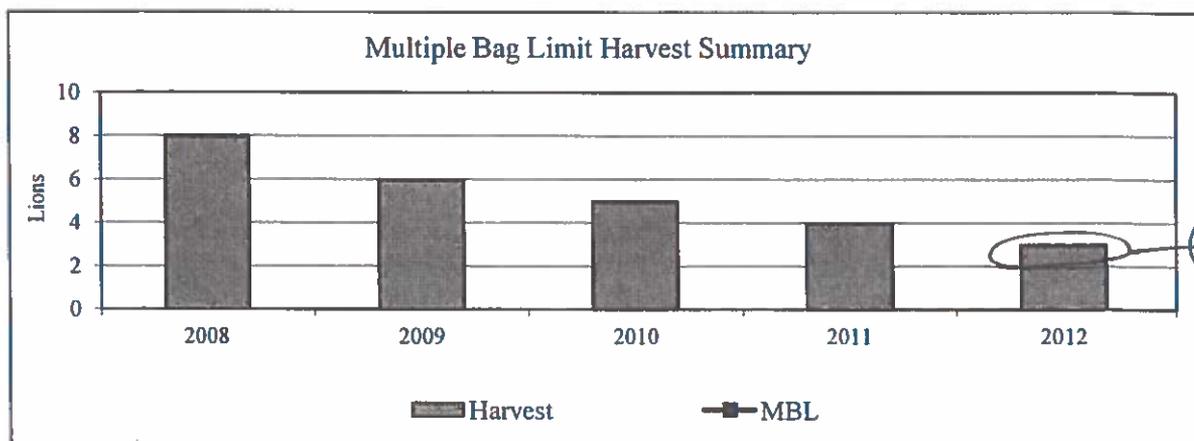
Amendments & Notes:

Game Branch Approval: _____

3/7/13

Date: _____

[Signature]

Regional Notes:

A total of 3 Mountain lions (3 male) were harvested from Unit 37B in 2012. 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.

The MBL will run in conjunction with the Statewide Comprehensive Game Management Plan currently being developed by the Game Branch as well as a Management Focus Area Plan and Predation Management Plan for GMU 37B. These plans are also currently being developed.

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.

Not much is known about the historical bighorn sheep population in the Mineral Mountains. There were anecdotal observations of sheep consistently for generations as well as sightings and photographs of sheep in the area. Most notably a group of sheep was photographed on Picketpost Mountain in July 2001. These observations coupled with the habitat assessment made it an ideal place to establish a robust population of desert bighorn sheep. In November of 2003 the first transplant of 30 sheep was done. These sheep were from several sources; 13 from Trigo Mountain, 11 from the Plomosas and 5 from the New Waters and 1 from the Chocolates. Eleven of these sheep were outfitted with radio telemetry collars. The collars were monitored at an intensive level for 2 years.

In 2007, 10 more sheep were transplanted, these were from the Trigo Mountains. Four of these sheep were outfitted with radio collars. These collars were monitored at a standard intensity level for one year at which point false mortality signal malfunctions made telemetry monitoring difficult. 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 Units 22 and 24B, 15 sheep from each unit. Ten of the sheep were outfitted with radio telemetry collars and 10 were outfitted with GPS collars (built by Telonics with Satellite service through Argos). The GPS collars also having a standard telemetry component. These collars have been and will continue to be monitored intensively for 2 years from the release. In addition the GPS collar data is uploaded from the collars once a week and checked by the wildlife manager weekly for mortalities and movement data. The GPS collars are programmed to come off in November of 2012. Since the release there have been 5 mortalities on collared bighorns 2 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 a more proactive lion management plan. As we only have 15 remaining collared sheep in this population there is concern that other mortalities are not being accounted for and that mountain lions could be affecting this bighorn herd to a greater degree than realized.

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 in the area.

Since the 2010 release of 30 more sheep into the Mineral Mountains there has been growing interest in the health and longevity of this bighorn herd from within the department, the Arizona Desert Bighorn Sheep Society, the Bureau of Land Management and many recreational groups who enjoy seeing the sheep as they pass through Box Canyon.

The final transplant for the project was completed in November 2012, 30 sheep were moved from Units 22/24B; 26 from Unit 22 and 4 from Unit 24B. Ten of those sheep were outfitted with Lotek GPS collars which are being monitored for movement and mortality. This final transplant brings the total number of sheep transplanted for the project to 100.