

DEPARTMENT OF PARKS AND RECREATION



Anza-Borrego Desert State Park  
Box 299  
Borrego Springs, California 92004

July 11, 1994

SHEEP COUNTERS:

My sincere thanks to all of you for making the 24th annual sheep count a resounding success. You all did a fine job of identification and being patient with the logistics and hot weather. Your willingness to help with all aspects of the count are much appreciated. The lamb count this year is the best ever recorded in the 24 year count. Two good years in a row! We hope this trend can continue.

COUNT SITE	EWE	LAMB	YRLNG		RAM	NO I.D.	TOTAL
			M	F			
1st Grove Palm Canyon	20	6	3	0	8		37
2nd Grove	0	0	0	0	0		0
3rd Grove	0	0	0	0	0		0
4th Grove	0	0	0	0	0		0
Tubb Canyon Guzzler	0	0	0	0	1		1*
Middle Spring	9	7	1	1	7		25
Pinyon Ridge	1	1	0	1	0		3
Upper Hellhole Canyon	0	0	0	0	0		0
Lower Hellhole Canyon	7	3	2	0	4		16
Box Cyn-Lower Willows	3	0	0	0	0		3
Lower Willows	18	12	3	0	0		33
Cougar Canyon	0	0	0	0	0		0
South Fork Sheep Cyn.	0	0	0	0	0		0
North Fork Sheep Cyn.	0	0	0	0	0		0
Salvador Canyon	0	0	0	0	0		0
Monkey Hill	0	0	0	0	0		0
Middle Willows	0	0	0	0	1	1	2
Upper Middle Willows	10	3	1	1	0		15
Upper Willows	0	0	0	0	0		0
Palo Verde/Smoke Tree	4	3	0	0	0		7
Palm Wash Tenajas	0	0	0	0	0		0
Rattlesnake Spring	3	3	0	0	0		6
<b>TOTALS</b>	<b>75</b>	<b>38</b>	<b>10</b>	<b>3</b>	<b>21</b>	<b>1</b>	<b>148</b>

RATIOS RAM:EWE 28:100 LAMB:EWE 51:100 YEARLING:EWE 17:100  
COUNT CONDUCTED JULY 2ND, 3RD, 4TH, 1994.

\*Guzzler sighted 19 sheep which were seen 1st by Middle Spr.

Sincerely,

*Mark C. Jorgensen*  
Mark C. Jorgensen  
Resource Ecologist

# Memorandum

Date : July 15, 1994

To : Bighorn Researchers

From : Department of Parks and Recreation  
Mark C. Jorgensen

Subject: Radio-Collared Bighorn Observed During the July 2-4, 1994 Count.

LOCATION	SEX	COLLAR	TAG	FREQ.
Rattlesnake Spring	ewe	lt. blu	org L # 3	160.380
Lower Willows (upper site)	ewe	blu	L # 6	160.330
	ewe	lt. blu	org L # 5	160.300
	ewe	blu	yel R #10	160.310
	ewe	Red	red L # 4	160.130
	ewe	red	yel R # 1	160.160
	ewe	red	whi R # 2	160.230
Borrego Palm Canyon--1st Grove	ewe	white	red R #14 metal #1624	159.160
	ewe	white	yel L #41	159.700
	ewe	red ?	yel L ?	??
	ewe	blu	red R	160.290
Tubb Canyon--Middle Spring	ewe		red #11	159.500
	ram	white	yel L #39	159.662
Palo Verde/Smoke Tree Area	ewe			160.120
	ewe			160.380
Hellhole Canyon--Lower Site	ewe			159.680
	ewe			159.760
	ewe	w/ lamb		159.800
	ewe	w/ lamb		159.180
	ewe			159.650

The information was taken from individual count sheets. In some cases the identification of ear tags, numbers, and collar colors was incomplete. The information was listed as received except radio frequencies were noted.

Within the count area at the time of the sheep count were thirty collared animals. 20 collared animals were observed on the count, 19 with enough detail and accuracy to be positive identifications. 19 of 30 is a rate of observation of 63%. With a total of 148 sheep observed at the 23 sites a rough population estimate of 203 could be projected for the count zone.

## DEPARTMENT OF PARKS AND RECREATION



Anza-Borrego Desert State Park  
Box 299  
Borrego Springs, California 92004

May 23, 1994

**TO ALL BIGHORN SHEEP COUNTERS: R.S.V.P. BEFORE JUNE 15TH!**

The 24th Annual Desert Bighorn Sheep Count is coming up on the 4th of July weekend and now is the time to sign up!

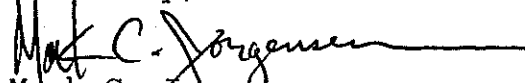
Over thirty bighorn in the north part of the park now have radio collars, so we will know for sure if these sheep are returning to water holes or using more than one count site.

As many of you know, we are in the third year of a cooperative research project involving the Anza-Borrego Desert Natural History Association, Department of Fish & Game, UC Davis, and the San Diego Zoological Society. Our focus is to determine causes for bighorn decline and to get accurate population data. Since November we have documented eleven mountain lion kills of collared bighorn. Information has been gathered by field researchers throughout the year and the annual sheep count will be a key element of this research project.

The count will be held on Saturday, July 2nd thru Monday, July 4th, 1994. We will meet at Borrego Palm Canyon on Friday, July 1st to organize and disperse to the sites. We ask that participants commit for all three days of the count. If you have not been on a sheep count before you must attend an orientation program at the Visitor Center in Borrego Springs Saturday, June 18th at 9AM.

I sincerely hope you can help us with this important bighorn sheep research.

Sincerely,

  
Mark C. Jorgensen  
Resource Ecologist  
Colorado Desert District

**IMPORTANT DATES TO REMEMBER:**

**ORIENTATION:** Saturday, June 18th, 9AM, Visitor Center

**MEET & DISPERSE:** FRI., JULY 1ST, 12-4PM, PALM CANYON  
MAINTENANCE SHOP

**SHEEP COUNT:** SAT, JULY 2ND THRU MONDAY, JULY 4TH (2PM)

**DEPARTMENT OF PARKS AND RECREATION**

Anza-Borrego Desert State Park  
 Box 299  
 Borrego Springs, California 92004

July 11, 1994

## SHEEP COUNTERS:

My sincere thanks to all of you for making the 24th annual sheep count a resounding success. You all did a fine job of identification and being patient with the logistics and hot weather. Your willingness to help with all aspects of the count are much appreciated. The lamb count this year is the best ever recorded in the 24 year count. Two good years in a row! We hope this trend can continue.

COUNT SITE	EWE	LAMB	YRLNG		RAM	NO I.D.	TOTAL
			M	F			
1st Grove Palm Canyon	20	6	3	0	8		37
2nd Grove	0	0	0	0	0		0
3rd Grove	0	0	0	0	0		0
4th Grove	0	0	0	0	0		0
Tubb Canyon Guzzler	0	0	0	0	1		1*
Middle Spring	9	7	1	1	7		25
Pinyon Ridge	1	1	0	1	0		3
Upper Hellhole Canyon	0	0	0	0	0		0
Lower Hellhole Canyon	7	3	2	0	4		16
Box Cyn-Lower Willows	3	0	0	0	0		3
Lower Willows	18	12	3	0	0		33
Cougar Canyon	0	0	0	0	0		0
South Fork Sheep Cyn.	0	0	0	0	0		0
North Fork Sheep Cyn.	0	0	0	0	0		0
Salvador Canyon	0	0	0	0	0		0
Monkey Hill	0	0	0	0	0		0
Middle Willows	0	0	0	0	1	1	2
Upper Middle Willows	10	3	1	1	0		15
Upper Willows	0	0	0	0	0		0
Palo Verde/Smoke Tree	4	3	0	0	0		7
Palm Wash Tenajas	0	0	0	0	0		0
Rattlesnake Spring	3	3	0	0	0		6
<b>TOTALS</b>	<b>75</b>	<b>38</b>	<b>10</b>	<b>3</b>	<b>21</b>	<b>1</b>	<b>148</b>

**RATIOS** RAM:EWE 28:100 LAMB:EWE 51:100 YEARLING:EWE 17:100  
 COUNT CONDUCTED JULY 2ND, 3RD, 4TH, 1994.

\*Guzzler sighted 19 sheep which were seen 1st by Middle Spr.

Sincerely,

*Mark C. Jorgensen*  
 Mark C. Jorgensen  
 Resource Ecologist

**DEPARTMENT OF PARKS AND RECREATION**

Anza-Borrego Desert State Park  
 Box 299  
 Borrego Springs, California 92004



July 5, 1993

## SHEEP COUNTERS:

Thanks to all of you for making the 23rd annual sheep count a great success. My sincere thanks to everyone who gave valuable time over the holiday weekend to help the desert bighorn sheep. Your cooperation and willingness to help with all aspects of the count are very much appreciated. The lamb count this year is the best ever recorded in the 23 year count! We hope this trend can continue to help build the population back to healthy numbers.

<u>COUNT SITE</u>	<u>EWE</u>	<u>LAMB</u>	<u>YRLNG</u>		<u>RAM</u>	<u>NO I.D.</u>	<u>TOTAL</u>
			<u>M</u>	<u>F</u>			
Lower Palm Cyn. Trail	2	1	0	0	1		4
1st Grove Palm Canyon	11	5	0	0	0		16
2nd Grove	3	0	0	0	1		4
3rd Grove	4	4	0	2	0		10
4th Grove *	0	0	0	0	0		0*
Tubb Canyon Guzzler	0	0	0	0	1		1
Middle Spring	1	0	0	0	4		5
Pinyon Ridge	5	2	1	1	0		9
Big Spring	0	0	0	0	0		0
Upper Hellhole Canyon	0	0	0	0	0		0
Box Cyn-Lower Willows	8	4	0	0	0		12
Lower Willows	18	9	2	2	13		44
Cougar Canyon	0	0	0	0	0		0
South Fork Sheep Cyn.	0	0	0	0	0	3	3
North Fork Sheep Cyn.	0	0	0	0	0		0
Salvador Canyon	1	0	0	0	0		1
Monkey Hill	0	0	0	0	1		1
Middle Willows	4	2	1	0	2		9
Upper Middle Willows	1	0	0	0	3		4
Upper Willows	2	1	0	0	1		4
Rattlesnake Spring	1	0	0	0	0		1
<u>TOTALS</u>	61	28	4	5	27	3	128

RATIOS RAM:EWE 44:100    LAMB:EWE 46:100    YEARLING:EWE 15:100

\*4th Grove sighted 9 sheep which were seen by 3rd grove team.

Thanks! You did a great job. Hope to see you next year.

Sincerely,

Mark C. Jorgensen  
 Naturalist

## DEPARTMENT OF PARKS AND RECREATION



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Box 299  
Borrego Springs, California 92004

July 5, 1993

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Thanks to all of you for making the 23rd annual sheep count a great success. My sincere thanks to everyone who gave valuable time over the holiday weekend to help the desert bighorn sheep. Your cooperation and willingness to help with all aspects of the count are very much appreciated. The lamb count this year is the best ever recorded in the 23 year count! We hope this trend can continue to help build the population back to healthy numbers.

COUNT SITE	EWE	LAMB	YRLNG		RAM	NO I.D.	TOTAL
			M	F			
Lower Palm Cyn. Trail	2	1	0	0	1		4
1st Grove Palm Canyon	11	5	0	0	0		16
2nd Grove	3	0	0	0	1		4
3rd Grove	4	4	0	2	0		10
4th Grove *	0	0	0	0	0		0*
Tubb Canyon Guzzler	0	0	0	0	1		1
Middle Spring	1	0	0	0	4		5
Pinyon Ridge	5	2	1	1	0		9
Big Spring	0	0	0	0	0		0
Upper Hellhole Canyon	0	0	0	0	0		0
Box Cyn-Lower Willows	8	4	0	0	0		12
Lower Willows	18	9	2	2	13		44
Cougar Canyon	0	0	0	0	0		0
South Fork Sheep Cyn.	0	0	0	0	0	3	3
North Fork Sheep Cyn.	0	0	0	0	0		0
Salvador Canyon	1	0	0	0	0		1
Monkey Hill	0	0	0	0	1		1
Middle Willows	4	2	1	0	2		9
Upper Middle Willows	1	0	0	0	3		4
Upper Willows	2	1	0	0	1		4
Rattlesnake Spring	1	0	0	0	0		1
<b>TOTALS</b>	<b>61</b>	<b>28</b>	<b>4</b>	<b>5</b>	<b>27</b>	<b>3</b>	<b>128</b>

RATIOS RAM:EWE 44:100    LAMB:EWE 46:100    YEARLING:EWE 15:100

\*4th Grove sighted 9 sheep which were seen by 3rd grove team.

Thanks! You did a great job. Hope to see you next year.

Sincerely,

Mark C. Jorgensen

## DEPARTMENT OF PARKS AND RECREATION



Anza-Borrego Desert State Park  
Box 299  
Borrego Springs, California 92004

July 6, 1992

## SHEEP COUNTERS:

We've wrapped up the 22nd annual sheep count and I want to extend my heartfelt thanks to everyone who made this event such a success. Your cooperation and willingness to help with all aspects of the count were very much appreciated. The lamb count this year is the best in six years and the third best ever tabulated in the 22 year count. We hope this is in response to abundant winter rains and resulting forage.

COUNT SITE	EWE	LAMB	YRLNG		RAM	NO I.D.	TOTAL
			M	F			
1st Grove Palm Canyon	14	5	3	0	4		26
2nd Grove	7	2	1	0	1	1	12
3rd Grove	2	1	0	0	2		5
4th Grove	5	4	0	0	2		11
Tubb Canyon Guzzler	0	0	0	0	1		1
Middle Spring	2	0	2	0	1		5
Big Spring	0	0	0	0	0		0
Upper Hellhole Canyon	0	0	0	0	0		0
Maidenhair Falls	0	0	0	0	0		0
Box Cyn-Lower Willows	13	6	0	0	7		26
Lower Willows	6	2	1	0	4		13
Cougar Canyon	1	0	0	0	0		1
South Fork Sheep Cyn.	0	0	0	0	0		0
North Fork Sheep Cyn.	0	0	0	0	0		0
Salvador Canyon	0	0	0	0	0		0
Monkey Hill	0	0	0	0	3		3
Middle Willows	16	5	0	0	15	2	38
Upper Middle Willows	1	1	1	0	0		3
Upper Willows (Dry)	0	0	0	0	0		0
Rattlesnake Spring	0	0	0	0	0		0
Pinyon Ridge	2	0	0	0	2		4
Montezuma Grade	0	0	0	0	1		1
	69	26	8	0	43		<u>TOTAL</u> 149

RATIOS RAM:EWE 62:100    LAMB:EWE 38:100    YEARLING:EWE 12:100

Thanks to each and every one of you volunteers who made this census possible. Your dedication to the bighorn and to Anza-Borrego makes me proud to work with all of you. Thanks!

Sincerely,

*Mark C. Jorgensen*  
Mark C. Jorgensen  
Naturalist

DEPARTMENT OF PARKS AND RECREATION  
 ANZA-BORREGO DESERT STATE PARK  
 BOX 299  
 BORREGO SPRINGS, CA 92004  
 (619) 767-5311



July 7, 1991

NORTHERN SHEEP COUNT--JULY 5, 6, 7, 1991

SHEEP COUNT VOLUNTEERS:

Many thanks to each and every one of you for your dedication and total cooperation in making the 1991 bighorn sheep count a complete success. Sixty-eight volunteers covered nineteen count sites and compiled 130 sightings during three days of hot and humid weather. You'll be glad to know that two hours after your departure, over ¼" of rainfall was recorded in twenty minutes at Park Headquarters. We on the staff of Anza-Borrego Desert State Park are proud of your willingness to help desert wildlife and to give up your holiday weekend to assist the bighorn sheep. We hope you enjoyed a safe and rewarding three days in your park and that you'll consider returning next season---set the dates on your schedule, July 2-5!!

On behalf of the bighorn and the park staff, my thanks to you all for giving so much of your time and hard work. We sincerely hope you came to know yourselves and the desert even better than before!

Sincerely,

*Mark C. Jorgensen*  
 Mark C. Jorgensen  
 Naturalist

SITE	EWES	LAMBS	M F		RAMS	TOTAL
			YEARLINGS			
FIRST GROVE, PALM CANYON	18	4	0	4	2	28
SECOND GROVE	7	2	0	0	1	10
THIRD GROVE	0	0	0	0	1	1
FOURTH GROVE	0	0	0	0	0	0
TUBB CANYON GUZZLER	0	0	0	0	0	0
MIDDLE SPRING	1	0	0	0	1	2
BIG SPRING	0	0	0	0	0	0
HELLHOLE CANYON	0	0	0	0	0	0
BOX CANYON--LOWER WILLOWS	16	5	0	0	4	26 (1 NO I.)
LOWER WILLOWS	6	2	1	1	0	10
MONKEY HILL	1	0	0	0	6	7
MIDDLE WILLOWS	11	3	2	0	2	18
UPPER MIDDLE WILLOWS	9	1	0	0	6	16
UPPER WILLOWS	0	0	0	0	0	0
S. FORK SHEEP CANYON	0	0	0	0	0	0
N. FORK SHEEP CANYON (2 SITES)	0	0	0	0	2	2
COUGAR CANYON	0	0	0	0	0	0
RATTLESNAKE SPRING	8	1	1	0	0	10
<b>TOTALS</b>	<b>77</b>	<b>18</b>	<b>4</b>	<b>5</b>	<b>25</b>	<b>130 (1 NO I.)</b>

RATIOS=EWES:LAMB    EWE:YEARLING  
 100:23            100:12  
 EWE:RAM  
 100:33





DEPARTMENT OF PARKS AND RECREATION  
 ANZA-BORREGO DESERT STATE PARK  
 BOX 299  
 BORREGO SPRINGS, CA 92004  
 (619) 767-5311



July 5, 1990

NORTHERN SHEEP COUNT--JUNE 29, 30, JULY 1, 1990

BIGHORN SHEEP COUNTERS:

We have just completed our twentieth consecutive summer census. You have all performed an invaluable service to California wildlife and on behalf of the staff at Anza-Borrego I extend our heartfelt thanks. It is time to put 20 years worth of data into the mill and see what it tells us about the long term trend of this population. Recently the drought has continued with 1989/90 being the driest ever recorded with 1.73" of rainfall. This effects browse and lamb success. Again we detect a gap in the Cougar-Sheep-Salvador Canyon area for reasons unknown. Rattlesnake Spring was not counted but will be in the next couple of weeks. Weather this year was hot and then humid during the count. Temperatures of 122° and 120° hit just prior to the count. I commend you all for your efforts and appreciate your record of safety and participation. You did great and I hope to see you back real soon.

Sincerely,

*Mark C. Jorgensen*  
 Mark C. Jorgensen, Naturalist

SITE	EWES	LAMBS	M YEARLINGS	F YEARLINGS	RAMS	TOTAL	
FIRST GROVE, PALM CANYON	10	0	0	2	4	16	
SECOND GROVE	0	0	0	0	0	0	
THIRD GROVE	1	1	0	0	0	2	
FOURTH GROVE	11	0	0	0	0	11	
TUBB CANYON GUZZLER	17	2	0	0	6	25	
MIDDLE SPRING	5	2	1	2	1	11	
BIG SPRING	0	0	0	0	0	0	
HELLHOLE CANYON (2 SITES)	4	1	0	0	0	5	
BOX CANYON-LOWER WILLOWS	5	2	0	0	1	8	
LOWER WILLOWS-UPPER SITE	0	0	0	0	0	0	
MONKEY HILL	2	2	0	0	3	7	
MIDDLE WILLOWS	2	1	0	2	2	7	
UPPER MIDDLE WILLOWS	8	3	0	3	9	23	
UPPER WILLOWS (2 NO I.D.)	4	0	0	0	1	7	
S. FORK SHEEP CANYON	0	0	0	0	0	0	
N. FORK SHEEP CANYON (2 SITES)	0	0	0	0	0	0	
COUGAR CANYON	0	0	0	0	0	0	
SALVADOR CANYON	0	0	0	0	0	0	
RATTLESNAKE SPRING	NOT COUNTED--WILL BE COUNTED IN MID-JULY						
TOTALS===	NO I.D.=2	69	14	1	9	27	122
RATIOS===		EWES:LAMB	EWES:YEARLING	EWES:RAM			
		100:20	100:14	100:39			

DEPARTMENT OF PARKS AND RECREATION  
 ANZA-BORREGO DESERT STATE PARK  
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JULY 6, 1989

NORTHERN SHEEP COUNT---JULY 1-3, 1989

SHEEP COUNTERS:

The data from the 19th Annual Sheep Count has been compiled and is encouraging in several areas. Although the lamb count is one of the lowest, the count of ewes and yearlings is healthy and the distribution of sheep throughout the western canyons appears more widespread than in recent times. The drought of '87-'89 most likely accounts for few lambs surviving until census time. The count for Middle and Upper Willows has come back up and bighorn were sighted in Salvador and Sheep Canyons once again. Let's hope for rainfall in the coming months and see what next spring and summer bring to the desert.

Weather was perfect this year with temperatures between 111° & 118°. Sixty counters stayed the entire time without problems or injury. I thank you all for your great efforts. You did a wonderful job.

Sincerely,

*Mark C. Jorgensen*  
 Mark C. Jorgensen  
 Naturalist

SITE	EWES	LAMBS	YEARLINGS		RAMS	TOTAL	
			M	F			
FIRST GROVE--PALM CANYON	5	0	0	1	1	7	
SECOND GROVE	12	0	0	0	1	13	
THIRD GROVE	5	0	7	3	2	17	
FOURTH GROVE	6	0	1	1	0	8	
TUBB CANYON GUZZLER	0	0	0	0	1	1	
MIDDLE SPRING	19	2	1	4	7	33	
BIG SPRING	0	0	0	0	0	0	
HELLHOLE CANYON (TWO SITES)	1	1	2	1	2	7	
BOX CANYON (LOWER WILLOWS)	1	0	0	0	1	2	
LOWER WILLOWS	4	0	0	0	3	7	
MONKEY HILL (1 NO I.D.)	4	0	0	0	1	6	
MIDDLE WILLOWS (1 NO I.D.)	9	0	2	3	1	16	
UPPER MIDDLE WILLOWS	7	2	1	1	0	11	
UPPER WILLOWS	7	1	0	0	2	10	
SOUTH FORK SHEEP CANYON	0	0	0	0	0	0	
NORTH FORK SHEEP CANYON (2 SITES)	3	0	0	1	1	5	
COUGAR CANYON	0	0	0	0	2	2	
SALVADOR CANYON	1	0	0	0	3	4	
RATTLESNAKE SPRING	15	5	2	1	2	25	
TOTALS	(NO I.D.=2)	99	11	16	16	30	174
			(32)				
RATIOS	EWE:LAMB	EWE:YEARLING	EWE:RAM				
	100:11	100:32	100:30				

## DEPARTMENT OF PARKS AND RECREATION

Anza-Borrego Desert State Park

Box 299

Borrego Springs, CA 92004



July 18, 1988

Summary of Helicopter survey of the south end of the Santa Rosas

Time	Location	Rams	Ewes	Yearlings	Lambs
0620	Palo Verde Canyon 2,300'		1		1
0745	Peak NE of Rattlesnake		1		
0747	NE of Rattle- snake at 4,200'		2		3
0803	West Side of Santa Rosas @ 4,500'		7		4
Total			11		8

Nineteen animals sighted in 1hr. 50 min. of flying time. Areas checked were: Palo Verde Canyon  
Palm Wash Tinaja  
Rattlesnake Spring  
Limestone Spring  
Slopes West of Villager Peak

Rattlesnake Spring was in poor shape and was dug out with a shovel, but needs more work this summer. No sign was visible from the air around Limestone Spring and water situation there was not determined since the winds precluded us from getting low enough to see the water level in the guzzler box. This flight was done in conjunction with another project so flight time was limited. Follow up of last springs aerial vaccination was our prime motive on this cursory flight.

*Mark C. Jorgensen*  
Mark C. Jorgensen  
Naturalist

DEPARTMENT OF PARKS AND RECREATION

ANZA-BORREGO DESERT STATE PARK  
 BOX 299  
 BORREGO SPRINGS, CA 92004  
 619 767-5311



JULY 4, 1988

NORTHERN SHEEP COUNT---JULY 2-4, 1988

SHEEP COUNTERS:

Thanks for making the 1988 bighorn sheep census at Anza-Borrego a success and a smooth running operation. Everyone moved in to and out of their count sites without a hitch--even though the new bypass road at Lower Willows provided a challenge to many vehicles. The count total is the third lowest ever, though not as bad as last year. Rattlesnake Spring has not been counted yet, so that should add from 10 to 30 more to our total. Yearlings are looking healthy with a ewe:yearling ratio of 100:22. The count at Middle Willows was the lowest ever at 5, and the Salvador /Sheep Canyon area continues to be a void for bighorn. More questions for us to investigate!

We at the park sincerely appreciate the effort and dedication all of you continue to show and we look forward to seeing you in the future.

Sincerely,

*Mark C. Jorgensen*  
 Mark C. Jorgensen

SITE	EWES	LAMBS	M YEARLINGS	F YEARLINGS	RAMS	TOTAL
FIRST GROVE--PALM CANYON	6	1	-	1	2	10
SECOND GROVE	18	-	- 1	-	1	20
THIRD GROVE	4	1	2	-	3	10
FOURTH GROVE	3	-	-	-	-	3
TUBB CANYON GUZZLER	-	-	-	-	-	0
MIDDLE SPRING	16	5	5	3	11	40
BIG SPRING	-	-	-	-	-	0
HELLHOLE CANYON	4	1	-	-	3	8
BOX CANYON--LOWER WILLOWS	1	1	-	-	2	4
LOWER WILLOWS	13	6	- 2	-	-	21
MONKEY HILL	-	-	-	-	-	0
MIDDLE WILLOWS	1	1 (F)	-	-	-	2
UPPER MIDDLE WILLOWS	2	-	- 1	-	-	3
UPPER WILLOWS	-	-	-	-	-	2 (No I.
S. FORK SHEEP CANYON	-	-	-	-	-	0
N. FORK SHEEP CANYON	-	-	-	-	-	0
COUGAR CANYON	-	-	-	-	3	3
SALVADOR CANYON	-	-	-	-	-	0
<i>RATTLESNAKE (HELICOPTER 7/18/88)</i>	<i>11</i>	<i>8</i>				
TOTALS	68	16	15	25	25	126
	<i>79</i>	<i>24</i>	<i>15</i>	<i>25</i>	<i>25</i>	<i>145</i>
RATIOS	EWES : LAMB	EWES : YEARLING	EWES : RAM			
	<del>100 : 24</del>	<del>100 : 22</del>	<del>100 : 37</del>			
	<i>100 : 30</i>	<i>100 : 19</i>	<i>100 : 32</i>			

DEPARTMENT OF PARKS AND RECREATION  
ANZA-BORREGO DESERT STATE PARK  
P.O. BOX 299  
BORREGO SPRINGS, CA 92004



July 8, 1987

Northern Sheep Count---July 3-5, 1987

SHEEP COUNT PARTICIPANTS:

The results are in from the 17th Annual Bighorn Sheep Count. Everyone made it back to civilization without injury and many counters claim they'll be back for more next year. The total number of sheep is the second lowest in the count history but the ratios of lambs to ewes and yearlings to ewes is not as poor as some of us suspected might be the case this year.

Some sites were blanked as is usually the case during the census, but this year such hot spots as Tubb Canyon, Upper Middle Willows, Palm Canyon's First Grove, and Salvador came up with "zeros". Palm Canyon and Middle Willows combined for 82 of the 119 sightings. This year we are finding some of the traditional concentration areas are being abandoned and the sheep seem to be spreading out or diminishing. Possible areas for us to explore are the drought situation this year--the first one in over ten years, the spread of exotic viruses, what effect feral cattle removal may have on sheep habitat in the future, and what effect placement of sheep guzzlers may have on sheep numbers in the Vallecito Mountains. There is still a lot of work to do!! Counters in Upper North Fork of Sheep Canyon had a rare chance to view an adult cougar for quite awhile and everyone from the Coyote Canyon region saw a nice ram overlooking Lower Willows on their ride back to civilization on Sunday. Thanks to you all for your dedication and patience--hope to see you for the next count!

Sincerely, *Mark C. Jorgensen* Mark C. Jorgensen

SITE	EWES	LAMBS	YEARLINGS	RAMS	TOTAL
Lower Palm Cyn. Trail	0	0	0	0	0
First Grove-Palm Canyon	0	0	0	0	0
Second Grove	10	7	0	4	21
Third Grove	5	0	1	3	9
Fourth Grove	1	1	0	2	4
Tubb Canyon Guzzler	0	0	0	0	0
Middle Spring	0	0	0	0	0
Big Spring	0	0	0	0	0
Lower Hellhole	4	2	1	2	9
Upper Hellhole	0	0	0	0	0
Box Canyon-Lower Willows	1	0	0	2	3
Lower Willows	1	0	0	1	2
Monkey Hill	6	1	0	1	8
Middle Willows	27	8	6	7	48
Upper Middle Willows	0	0	0	0	0
Upper Willows	2	0	0	1	3
South Fork Sheep Canyon	0	0	0	2	2
North Fork Sheep Canyon	0	0	0	0	0
Upper N. Fk. Sheep Cyn.	0	0	0	1	1
Cougar Canyon	0	0	0	1	1
Deering Canyon	0	0	0	0	0
Salvador Canyon	0	0	0	0	0
Rattlesnake Spring	5	1	1	1	8
TOTALS	62	20	9	28	119

## DEPARTMENT OF PARKS AND RECREATION

Anza-Borrego Desert State Park  
P.O. Box 299  
Borrego Springs, CA 92004



July 12, 1986

NORTHERN SHEEP COUNT---July 4-6, 1986

## SHEEP COUNTERS &amp; FRIENDS!!

Thanks! Thanks! and more Thanks! You folks did a great job! The 1986 Sheep Count is in the books and the results show some data we can be happy with. The lamb and yearling figures are the best in over a decade and the overall count total hit right on the mean for the sixteen years of censusing here in Anza-Borrego.

The weather started off cool and windy and the first day counts were poor. You all became experts at keeping a tarp up in a twenty mile an hour breeze! Seven of us became experts with the Stokes Litter when we had to respond to the first injury ever on a sheep count. George McDaniel broke two bones in his ankle and is resting fine in a cast right now. He hung in there amidst hours of sun, boulder hopping, jesting assaults, and sick stories to be driven out to the Scripps Clinic. He'll be back next year--you don't get out of a sheep count so easily! George did get to see a bighorn from his vehicle seat on the way out of Coyote Canyon!

Thanks to the many of you who happily assisted with the 1986 Sheep Count. I'm proud to work with such dedicated people and look forward to seeing you all in 1987.

Sincerely,

*Mark C. Jorgensen*  
Mark C. Jorgensen

SITE	EWES	LAMBS	YEARLINGS	RAMS	NO I.D.	TOTAL
First Grove-Palm Canyon	1	1	1	2	0	5
Second Grove	7	0	0	5	0	12
Third Grove	2	0	0	0	0	2
Fourth Grove	9	7	3	0	0	19
Tubb Canyon Guzzler	11	2	2	7	1	23
Middle Spring	6	5	1	8	0	20
Big Spring	0	0	0	0	0	0
Hellhole-Maidenhair Falls	0	0	0	0	0	0
Upper Hellhole Overlook	0	0	0	0	0	0
Ridge Betw. Culp & Dry Cyn	0	0	0	0	0	0
Box Canyon	2	1	0	2	0	5
Lower Willows	3	2	0	2	0	7
Monkey Hill	0	0	0	0	0	0
Middle Willows	18	4	4	13	1	40
Upper Middle Willows	2	0	0	1	1	4
Upper Willows	0	0	0	0	0	0
South Fork Sheep Canyon	0	0	0	0	0	0
Upper North Fork Sheep	0	0	0	0	0	0
Lower North Fork Sheep	0	0	0	0	0	0
Cougar Canyon	0	0	0	1	0	1
Deering Canyon	0	0	0	0	0	0
Salvador Canyon* (*2 days)	0	0	0	0	0	0
Rattlesnake Spring	13	7	7	3	0	30
TOTALS:	74	29	18	44	3	168

EWES : LAMBS

100 : 39

EWES : YEARLINGS

100 : 24

EWES : RAMS

100 : 59

## DEPARTMENT OF PARKS AND RECREATION

Anza-Borrego Desert State Park  
P.O. Box 428  
Borrego Springs, CA 92004



July 18, 1985

Sheep Count Enthusiasts!

NORTHERN SHEEP COUNT--July 12-14, 1985

We put together a great census for the summer of 1985, with the best results in six years. You all made it possible and you receive the heartfelt thanks of the state park staff here at Anza-Borrego.

The weather was superb for census work--117° and very dry. This meant the sheep had to venture into the deep canyons for water and we had a good chance of spotting them this year. Thanks to all of you who stuck it out for the three loooong days of heat, boredom, and moments of excitement to make this the successful count it was. We had more counters than ever on the roster and we also had the highest rate of bailouts. We lost count sites in a few canyons but those of you who stayed did an admirable job and I thank you very much. I'm proud to send this years results to you.

Hope to see you again next year. Thanks Again.

*Mark C. Jorgensen*  
Mark C. Jorgensen

SITE	EWES	LAMBS	YEARLINGS	RAMS	NO I.D.	TOTAL
First Grove-Palm Canyon	31	4	0	4	0	39
Second Grove	6	2	0	0	1	9
Third Grove	0	0	0	0	0	0
Fourth Grove	5	2	0	0	0	7
Big Spring	0	0	0	0	0	0
Middle Spring	5	1	1	5	0	12
Tub Canyon Guzzler	9	1	7	7	1	25
Tub Cyn Pipe Outfall	7	1	1	4	0	13
Hellhole Overlook	0	0	0	0	0	0
Upper Hellhole**	**Counters at site two days					0
Maidenhair Falls*	NOT COUNTED---LEFT EARLY					
West Side St. Rosas	4	2	0	1	0	7
Box Canyon-Lower Willows	2	0	0	11	0	13
Lower Willows	2	2	0	5	0	9
Monkey Hill**	**Counters at site two days					0
Middle Willows	14	2	0	6	0	22
Upper Middle Willows	5	1	0	2	0	8
Upper Willows	2	1	0	0	0	3
S. Fork Sheep Canyon	2	0	0	1	0	3
N. Fk. Sheep Cyn. Upper	0	0	0	1	0	1
N. Fk. Sheep Cyn. Lower	0	0	0	0	0	0
Cougar Canyon	0	0	0	4	0	4
Deering & Indian	DRY----NOT COUNTED					
Salvador Canyon, Upper**	**Counters at site two days					0
Salvador Canyon, Lower	0	0	0	5	0	5
Rattlesnake Spring	9	4	6	0	0	19
TOTALS:	103	23	15	56	2	199

EWES : LAMBS

100 : 22

EWES : YEARLINGS

100 : 15

EWES : RAMS

100 : 54

July 11, 1984

Dear Sheep Count Volunteer:

The data has been gathered and compiled from the recent count in the north sector of Anza-Borrego. This data is essential for sound management decisions that affect the preservation of bighorn sheep within the park. We are pleased to provide you with the results from this year's count.

Thank you for donating your effort and time to the desert bighorn. We appreciate the sacrifices that you have made in order to participate in the sheep count. Be assured that your efforts have been worthwhile and your time well spent.

We look forward to seeing you again.

Our sincere thanks,

Anza-Borrego Staff

NORTH COUNT - June 29, 30 and July 1, 1984

Site Location	Ewes	Lambs	Yearlings	Rams	No I.D.	Total
Lower Borrego Palm Canyon	6	0	0	1	0	7
1st Grove } 2nd Grove }	5	1	0	3	0	9
3rd Grove	10	1	0	3	1	15
4th Grove	0	0	0	1	1	2
Tubb Canyon Drinker	7	0	4	3	0	14
Middle Spring	10	5	3	4	1	23
Lower Hellhole	1	1	0	2	0	4
Maidenhair	0	0	0	0	0	0
Upper Hellhole	0	0	0	0	0	0
Flat Cat	0	0	0	0	0	0
Big Spring	0	0	0	0	0	0
Lower - Lower Willows	9	0	1	8	0	18
Upper - Lower Willows	2	1	0	1	0	4
Ram Cove	1	1	1	1	0	4
Lower - Middle Willows	1	0	0	1	0	2
Upper - Middle Willows	5	3	2	1	0	11
Upper Willows	4	4	0	1	0	9
Salvador (2 sites)	0	0	0	2	0	2
Sheep Canyon South Fork	0	0	0	0	0	0
Sheep Canyon N. Fork Upper	1	0	0	1	0	2
Sheep Canyon N. Fork Lower	0	0	0	0	0	0
Deering	0	0	0	0	0	0
Cougar	0	0	0	0	0	0
Rattlesnake	4	0	0	1	0	5
<b>TOTALS:</b>	<b>66</b>	<b>17</b>	<b>11</b>	<b>34</b>	<b>3</b>	<b>131</b>

Ewes : Lambs  
100 : 26

Ewes : Yearlings  
100 : 16

Ewes : Rams  
100 : 52



## ANZA-BORREGO DESERT STATE PARK

## NORTH SHEEP COUNT

JULY 22-24, 1983

SITE	RAMS	EWES	LAMBS	YEARLINGS	UNIDENTIFIED	TOTAL
Big Spring	-	-	-	-	-	0
Middle Spring	1	1	-	-	-	2
Tubb Canyon Guzzler	2	3	-	3	1	9
Hellhole Canyon (4 sites)	-	-	-	-	-	0
Borrego Palm Canyon #1	1	10	5	1	-	17
Borrego Palm Canyon #2	-	7	1	1	-	9
Borrego Palm Canyon #3	1	7	1	4	-	13
Borrego Palm Canyon #4	1	2	-	-	-	3
Lower Willows (lower site)	-	3	-	-	-	3
Lower Willows (upper site)	4	8	-	1	-	13
Deering Canyon	-	-	-	-	-	0
Cougar Canyon	-	-	-	1	-	1
Sheep Canyon (South Fork)	-	-	-	-	-	0
Sheep Canyon (North Fork #1)	-	-	-	-	-	0
Sheep Canyon (North Fork #2)	-	-	-	-	-	0
Salvador Canyon #1	1	-	-	-	-	1
Salvador Canyon #2	-	-	-	-	-	0
Monkey Hill	1	-	-	-	-	1
Middle Willows (2 sites)	4	14	4	-	3	25
Upper Willows	-	4	1	-	-	5
Rattlesnake Spring	4	6	3	1	-	14
<b>TOTAL</b>	<b>20</b>	<b>65</b>	<b>15</b>	<b>12</b>	<b>4</b>	<b>116</b>

AGE AND SEX RATIOSRams: 100 Ewes

30

Lambs: 100 Ewes

23

Yearlings: 100 Ewes

18

Over 15 inches of rain in 1982-1983  
 Water abundant throughout range.

July 11, 1982

Dear Sheep Count Participant:

The information has been gathered and compiled for the sheep counts held in the northern and southern sectors of Anza-Borrego during June and July of 1982. This data is essential for sound management decisions that affect the preservation of bighorn sheep within the park. We are pleased to enclose the results from this year's counts.

Thank you for donating your effort and time to the desert bighorn. We appreciate the sacrifices that you have made in order to participate in the sheep counts. Be assured that your efforts have been worthwhile and your time well spent.

We look forward to seeing you again.

Our sincere thanks,

Anza-Borrego Staff

DESERT BIGHORN CENSUS  
Anza-Borrego Desert State Park  
South Count - June 25, 26, 27, 1982

Site Location	Rams	Ewes	Lambs	Yearlings	No. I.D.	Total
Diablo	3	5	2	0	0	10
Blackwater	1	2	2	0	0	5
Carrizo Gorge	0	1	0	0	0	1
4 Frogs	1	6	1	3	0	11
Cimmaron	0	8	6	0	0	14
Jacumba Jim Lower	2	7	0	0	0	9
Jacumba Jim Upper	0	0	0	0	0	0
Carrizo Palms	0	0	0	0	0	0
Macho	0	0	0	0	0	0
<b>TOTAL</b>	<b>7</b>	<b>29</b>	<b>11</b>	<b>3</b>		<b>50</b>

Rams:Ewes  
24 : 100

Lambs:Ewes  
37.4 : 100

Yearlings:Ewes  
10 : 100

NORTH Count - July 3-5, 1982

Site Location	Rams	Ewes	Lambs	Yearlings	No I.D.	Total
Rattlesnake	4	21	9	5	0	39
Upper Willows	0	0	0	0	1	1
Upper Middle Willows	0	2	2	0	0	4
Middle Willows	0	23	2	2	0	27
Monkey Hill	0	0	0	0	1	1
Salvador	3	6	1	0	0	10
N. Fo. Sheep Upper	0	0	0	0	0	0
N. Fo. Sheep Lower	0	0	0	0	0	0
S. Fo. Sheep	0	0	0	0	0	0
Cougar	0	1	1	0	0	2
Deering	1	1	0	1	0	3
Indian	0	0	0	0	0	0
Lower Willows	0	2	0	0	0	2
Box Canyon	1	0	0	0	0	1
1st Palm Cyn Grove	2	5	3	1	0	11
2nd Palm Cyn Grove	0	2	1	1	0	4
3rd Palm Cyn Grove	1	9	4	0	0	14
4th Palm Cyn Grove	not	counted				0
Hellhole	0	1	0	1	0	2
Hellhole Maidenhair	0	0	0	0	0	0
Hellhole upper	0	0	0	0	0	0
Hellhole Pena Spring	1	0	0	0	1	2
Montezuma Grade	7	3	2	1	0	13
Tubb Cyn	2	0	0	0	0	2
Big Spring	0	0	0	0	0	0
Yaqui Pass	0	2	0	0	0	2
<b>TOTAL</b>	<b>22</b>	<b>78</b>	<b>25</b>	<b>12</b>	<b>3</b>	<b>140</b>

Rams:Ewes  
28 : 100

Lambs:Ewes  
32 : 100

Yearlings:Ewes  
15 : 100



SOUTH SHEEP COUNT

July 11-14, 1980

<u>SITE LOCATIONS</u>	<u>RAMS</u>	<u>EWES</u>	<u>LAMBS</u>	<u>YEARLINGS</u>	<u>UNIDENTIFIED</u>	<u>TOTAL</u>
Diablo Spring	1	2	-	1	-	4
Blackwater Spring	2	-	-	-	-	2
Carrizo Gorge	3	4	-	-	-	7
Lower Carrizo	-	7	3	-	-	10
Four Frogs Spring	-	-	-	-	-	-
Cimaron Spring	-	1	-	-	-	1
Jacumba Jim Upper	6	3	-	-	-	9
Jacumba Jim Middle	1	8	-	-	-	9
Jacumba Jim Lower	-	6	-	-	-	6
Rockhouse Canyon	2	-	-	-	-	2
Carrizo Palms	-	-	-	-	-	-
Carrizo Palms Wash	-	1	1	-	-	2
<b>TOTAL</b>	<b>15</b>	<b>32</b>	<b>4</b>	<b>1</b>	<b>-</b>	<b>52</b>

AGE AND SEX RATIOS

<u>Rams/100 Ewes</u>	<u>Lambs/100 Ewes</u>	<u>Yearlings/100 Ewes</u>
47	13	3

NORTH SHEEP COUNT

July 4-6, 1930

SITE LOCATIONS	RAMS	EWES	LAMBS	YEARLINGS	UNIDENTIFIED	TOTAL
Borrogo Palm Canyon 1st Grove	-	1	-	1	-	2
Borrogo Palm Canyon 2nd Grove	-	2	1	1	-	4
Borrogo Palm Canyon 3rd Grove	2	-	-	-	-	2
Borrogo Palm Canyon 4th Grove	1	-	-	-	2	3
Hellhole Canyon Upper	2	-	-	-	-	2
Hellhole Canyon Middle	-	-	-	-	-	-
Hellhole Canyon Lower	-	-	-	-	-	-
Tubb Canyon Upper	6	6	-	-	-	12
Tubb Canyon Lower	11	11	-	-	2	24
Rattlesnake Spring	2	15	8	5	-	30
Palo Verde Spring	-	6	3	-	-	9
Lower Willows Middle	3	-	-	-	-	3
Lower Willows Lower	-	-	-	-	-	-
Middle Willows Upper**	3	16	1	-	1	21
Middle Willows Lower**	2	5	-	-	-	7
Monkey Hill**	1	2	-	-	-	3
Salvador South Fork*	-	-	-	-	-	-
Salvador Middle Fork*	-	-	-	-	-	-
Salvador Spring*	-	-	-	-	-	-
Sheep Canyon South*	-	-	-	-	-	-
Sheep Canyon Upper*	-	-	-	-	-	-
Sheep Canyon Middle*	2	2	-	-	-	4
Sheep Canyon Lower*	-	-	-	-	-	-
Cougar Canyon Upper**	1	3	1	-	-	5
Cougar Canyon Lower**	-	-	-	-	-	-
Indian Canyon**	-	-	-	-	-	-
Deering Canyon**	-	-	-	-	-	-
<b>TOTAL</b>	<b>7</b>	<b>36</b>	<b>69</b>	<b>14</b>	<b>5</b>	<b>131</b>

\*Evacuated the morning of 8/4/80 due to fire.

\*\*Evacuated the morning of 10/5/80 due to fire.

AGE AND SEX RATIOS

Rams/100 Ewes

52

Lambs/100 Ewes

20

Yearlings/100 Ewes

10

DESERT BIGHORN CENSUS FOR THE NORTHERN SECTOR  
 ANZA-BORREGO DESERT STATE PARK  
 (JULY 7 thru JULY 9, 1979)

SITE	RAM	EWE	LAMB	YEARLING	UNIDENTIFIED	TOTAL
Upper Middle Willows	6	9	2	0	0	17
Middle Willows	11	23	3	3	0	40
Monkey Hill	1	1	0	0	0	2
Upper Salvador	1	10	0	0	0	11
Lower Salvador	6	0	0	0	1	7
Lower Sheep Canyon	4	9	2	4	1	20
North Fork Sheep Canyon	1	15	6	0	0	22
South Fork Sheep Canyon	6	5	4	4	0	19
Cougar Canyon	0	0	0	0	0	0
Deering Canyon	0	1	0	0	0	1
Lower Willows	1	11	0	1	0	13
Box Canyon	0	0	0	0	0	0
4th Grove Borrego Palm Canyon	2	13	3	2	0	20
3rd Grove Borrego Palm Canyon	1	5	0	0	1	7
2nd Grove Borrego Palm Canyon	1	6	0	0	1	8
1st Grove Borrego Palm Canyon	0	0	0	0	2	2
Upper Hellhole	6	3	1	0	0	10
Lower Hellhole	0	0	0	0	0	0
Big Spring	1	0	0	0	0	1
Middle Springs	8	16	1	1	3	29
Rattlesnake Spring	18	24	14	1	0	57
Montezuma Grade	0	1	0	1	0	2
TOTAL	74	154	36	17	9	288

AGE AND SEX RATIOS

<u>Ram:Ewe</u>	<u>Lamb:Ewe</u>	<u>Yearling:Ewe</u>
49 : 100	24 : 100	11 : 100

## DEPARTMENT OF PARKS AND RECREATION

REVIEW OF SHEEP COUNT DATA FOR 1978--NORTH COUNT

(Attempt to recover data from original site sheets and categorize by count site to conform with other years)

SITE	EWES	LAMBS	YEARLINGS		RAMS	NO I.D.	TOTAL
			M	F			
PALM CYN. 3RD	5	2	2	0	2		11
PALM CYN. 4TH	1	1	1	0	5		8
MIDDLE S. TUBB	15	0	0	0	7	2	24
BIG SPR. TUBB	0	0	0	0	3		3
HELLHOLE CYN.	5	0	0	0	4		9
LOWER WILLOWS	5	0	1	0	7		13
MONKEY HILL	0	0	1	2	7		10
MIDDLE WILLOWS	23	2	1	1	13	4	44
S. FK. SHEEP	1	0	0	0	1		2
N. FK. SHEEP	6	0	0	1	7		14
COUGAR CANYON	0	0	1	0	3		4
INDIAN/DEERING	0	0	0	0	0		0
SALVADOR CYN.	2	0	0	0	4		6
RATTLESNAKE	17	7		2	13		39
<b>TOTAL</b>	<b>80</b>	<b>12</b>	<b>13</b>		<b>76</b>	<b>6</b>	<b>187</b>

RATIOSLAMB:EWEYEARLING:EWERAM:EWE

15:100

16:100

95:100

DATA ORIGINALLY REPORTED IN 1978 TALLY SHOWED TOTAL OF 199,  
BUT REVIEW SHOWS TOTAL OF 12 REPEAT ANIMALS FOR TOTAL OF 187.



7-24-92  
Dorgan

## DEPARTMENT OF PARKS AND RECREATION

REVIEW OF SHEEP COUNT DATA FOR 1978--SOUTH COUNT

(Attempt to recover data from original site sheets and categorize by count site to conform with other years)

SITE	EWES	LAMBS	YEARLINGS		RAMS	NO I.D.	TOTAL
			M	F			
CARRIZO GORGE	1	0	0	0	1		2
CARRIZO CANYON	2	0	0	0	0		2
CARRIZO PALMS	7	0	0	0	0		7
BLACKWATER SPR.	7	0	1	0	1	1	10
CIMARRON SPR.	5	0	2	2	5		14
JACUMBA JIM S.	25	0	0	0	4		29
ROCKHOUSE CYN.	0	0	0	0	2		2
<b>TOTALS</b>	<b>47</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>13</b>	<b>1</b>	<b>66</b>

DATA ORIGINALLY REPORTED IN 1978 TALLY SHOWED TOTAL OF 70,  
BUT REVIEW SHOWS SEVEN REPEAT ANIMALS, FOR A TOTAL OF 66.

<u>RATIOS</u>	<u>LAMB:EWE</u>	<u>YEARLING:EWE</u>	<u>RAM:EWE</u>
	0:100	11:100	26:100





BIGHORN CENSUS FOR THE NORTHERN SECTOR

of

ANZA-BORRERO DESERT STATE PARK

(July 14-17, 1978)

<u>TOTAL</u>	<u>RAM</u>	<u>EWE</u>	<u>LAMB</u>	<u>YEARLING</u>	<u>UNIDENTIFIED</u>
199	79	86	14	16	4

AGE & SEX RATIOS FOR NORTHERN SECTOR OF PARK

<u>RAM:EWE</u>	<u>LAMB:EWE</u>	<u>YEARLING:EWE</u>
92:100	16:100	19:100

BIGHORN CENSUS FOR THE SOUTHERN SECTOR

of

ANZA-BORRERO DESERT STATE PARK

(July 7-10, 1978)

<u>TOTAL</u>	<u>RAM</u>	<u>EWE</u>	<u>LAMB</u>	<u>YEARLING</u>	<u>UNIDENTIFIED</u>
70	17	47	0	5	1

AGE & SEX RATIOS FOR SOUTHERN SECTOR OF PARK

<u>RAM:EWE</u>	<u>LAMB:EWE</u>	<u>YEARLING:EWE</u>
36:100	0:100	11:100

1975 TOTAL - SOUTH  
122, 14 rams, 76 ewes,  
7 yearlings, 15 lambs.

1976 TOTAL - SOUTH  
138, 19 rams, 95 ewes,  
7 yearlings, 9 lambs.

1977 TOTAL - SOUTH  
84, 20 rams, 59 ewes,  
2 yearlings, 1 lamb.

TOTAL - NORTH  
196, 36 rams, 92 ewes,  
28 yearlings, 31 lambs.

TOTAL - NORTH  
134, 37 rams, 72 ewes,  
7 yearlings, 13 lambs.

TOTAL - NORTH  
128, 33 rams, 81 ewes,  
10 yearlings, 4 lambs.

DESERT BIGHORN CENSUS FOR THE SOUTHERN SECTOR

of

ANZA-BORREGO DESERT STATE PARK

(July 2-4, 1977)

COUNT

<u>LOCATION</u>	<u>RAM</u>	<u>EWE</u>	<u>LAMB</u>	<u>YEARLING</u>	<u>UNIDENTIFIED</u>	<u>TOTAL</u>
Grapevine Spring	0	0	0	0	0	0
Jacumba Jim Spring	6	15	0	0	0	21
Cimaron Spring	6	15	1	1	0	23
Four Frogs Spring	3	3	0	0	0	6
Blackwater Spring	3	14	0	0	0	17
Diablo Spring	2	5	0	0	0	7
Carrizo Palms	0	7	0	1	2	10
Carrizo Canyon*	0	0	0	0	0	0
Carrizo Canyon*	0	0	0	0	0	0
TOTALS	20	59	1	2	2	84

AGE & SEX RATIOS FOR SOUTHERN SECTOR

<u>RAM:EWE</u>	<u>LAMB EWE</u>	<u>YEARLING:EWE</u>
34:100	2:100	3:100

Note: \*These two locations were counted due to surface water present as a result of the heavy rains during September, 1976.

DESERT BIGHORN CENSUS FOR THE NORTHERN SECTOR

of

ANZA-BORREGO DESERT STATE PARK

(July 9-11, 1977)

COUNT

<u>LOCATION</u>	<u>RAM</u>	<u>EWE</u>	<u>LAMB</u>	<u>YEARLING</u>	<u>UNIDENTIFIED</u>	<u>TOTAL</u>
Big Spring	0	0	0	0	0	0
Middle Spring	5	1	0	1	0	7
Hellhole Canyon	2	5	0	0	0	7
First Palm Grove, BPC	0	0	0	0	0	0
Second Palm Grove, BPC	Not Counted*					
Third Palm Grove, BPC	1	1	0	0	0	2
Fourth Palm Grove, BPC )	3	0	0	1	0	4
Fifth Palm Grove, BPC						
Lower Willows	1	6	0	0	0	7
Berris Bowl	1	3	0	0	0	4
Cougar Canyon	3	20	0	6	0	29
South Fork Sheep Canyon	2	5	0	0	0	7
North Fork Sheep Canyon**	0	4	0	0	0	4
Salvador Canyon	1	2	0	0	0	3
Middle Willows )	10	13	3	1	0	27
Monkey Hill						
Rattlesnake Spring	4	21	1	1	0	27
TOTALS	33	81	4	10	0	128

AGE & SEX RATIOS FOR NORTHERN SECTOR

RAM:EWE

41:100

LAMB:EWE

5:100

YEARLING:EWE

12:100

Note: \*This area was not counted due to a large group of hikers present for the duration of the count.

\*\*This area was counted for only 1½ total census days due to a mixup with the counting team.

DESERT BIGHORN CENSUS FOR THE SOUTHERN SECTOR

cf

ANZA-BORREGO DESERT STATE PARK

(June 25-27, 1976)

COUNT

<u>LOCATION</u>	<u>RAM</u>	<u>EWE</u>	<u>LAMB</u>	<u>YEARLING</u>	<u>UNIDENTIFIED</u>	<u>TOTAL</u>
Grapevine Spring	2	0	0	0	0	2
Jacumba Jim Spring	3	7	0	3	1	14
Cimaron Spring	6	34	1	0	0	41
Four Frogs Spring*	1	7	0	0	0	8
Blackwater Spring	7	16	1	4	0	28
Diablo Spring*	0	8	1	0	0	9
Carrizo Canyon**	0	3	0	0	0	3
Carrizo Palms	0	20	6	0	0	26
Macho Spring	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>7</u>	<u>7</u>
<u>TOTALS</u>	19	95	9	7	8	138

AGE & SEX RATIOS FOR SOUTHERN SECTOR

RAM:EWE

20:100

LAMB:EWE

10:100

YEARLING:EWE

8:100

NOTE: \*Were not counted the third day.

\*\*Was not counted the second or third day.

\*\*\*\*\*

DESERT BIGHORN CENSUS FOR THE NORTHERN SECTOR

of

ANZA-BORREGO DESERT STATE PARK  
(July 3-5, 1976)

<u>LOCATION</u>	<u>COUNT</u>					
	<u>RAM</u>	<u>EWE</u>	<u>LAMB</u>	<u>YEARLING</u>	<u>UNIDENTIFIED</u>	<u>TOTAL</u>
Big Spring	2	0	0	0	0	2
Middle Spring	1	5	1	0	0	7
Hellhole Canyon	NOT COUNTED					
1st Palm Grove, BPC	2	1	0	0	0	3
2nd Palm Grove, BPC	NOT COUNTED					
3rd Palm Grove, BPC	5	7	0	0	1	13
4th Palm Grove, BPC	7	0	1	0	3	11
Lower Willows	1	5	0	3	0	9
Cougar Canyon	0	2	0	0	0	2
South Fork Sheep Canyon	5	23	3	3	0	34
North Fork Sheep Canyon	1	6	0	0	0	7
Salvador Canyon	3	4	0	0	0	7
Monkey Hill	4	1	0	0	0	5
Middle Willows	<u>6</u>	<u>18</u>	<u>8</u>	<u>1</u>	<u>1</u>	<u>34</u>
<u>TOTALS</u>	37	72	13	7	5	134
Rattlesnake Spring *	1	3	1	1	0	6

AGE & SEX RATIOS FOR NORTHERN SECTOR

RAM:EWE

LAMB:EWE

YEARLING:EWE

51:100

18:100

10:100

\* Counted by California State Fish and Game on July 6-8, 1976.

COPY

DESERT BIGHORN CENSUS FOR THE SOUTHERN SECTOR  
of  
ANZA-BORREGO DESERT STATE PARK  
(July 11-13, 1975)

COUNT

<u>LOCATION</u>	<u>Ram</u>	<u>Ewe</u>	<u>Lamb</u>	<u>Yearlings</u>	<u>Unidentified</u>	<u>Total</u>
McCain Valley	1	0	0	0	0	1
Grapevine Spring	0	0	0	0	0	0
Jacumba Jim Spring	2	3	0	0	0	5
Cimaron Spring	5	24	4	1	0	34
Four Frogs Spring	0	1	0	0	0	1
Blackwater Spring	3	34	11	6	0	54
Diablo Spring	3	14	0	0	0	17
Carrizo Canyon	0	0	0	0	0	0
Carrizo Palms	0	0	0	0	0	0
Macho Spring	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>10</u>	<u>10</u>
<u>TOTALS</u>	14	76	15	7	10	122

AGE & SEX RATIOS FOR SOUTHERN SECTOR

LAMB:EWE  
20:100

RAM:EWE  
31:100

YEARLING:EWE  
9:100

DESERT BIGHORN CENSUS FOR THE NORTHERN SECTOR  
of  
ANZA-BORREGO DESERT STATE PARK  
(July 3-6, 1975)

<u>LOCATION</u>	<u>COUNT</u>					
	<u>Ram</u>	<u>Ewe</u>	<u>Lamb</u>	<u>Yearlings</u>	<u>Unidentified</u>	<u>Total</u>
Rattlesnake Spring	2	6	0	0	0	8
Middle Willows	4	17	5	2	0	28
Monkey Hill	1	0	0	0	0	1
Salvador Canyon	1	1	0	0	0	2
N. Fk. Sheep Canyon	0	7	3	2	0	12
W. Fk. Sheep Canyon	10	11	8	5	0	34
Cougar Canyon	1	2	1	1	0	5
Deering Canyon	-	-	- NOT COUNTED -		-	-
1st Palm Grove, BPC	0	1	1	0	0	2
2nd Palm Grove, BPC	2	2	1	0	0	5
3rd Palm Grove, BPC	0	3	3	7	3	16
4th Palm Grove, BPC	3	33	8	9	6	59
Lower Willows	3	0	0	0	0	3
Hellhole Canyon	5	5	1	2	0	13
Big Spring, Tubb Canyon	0	1	0	0	0	1
Middle Spr., Tubb Canyon	<u>4</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>7</u>
<u>TOTALS</u>	36	92	31	28	9	196

AGE & SEX RATIOS FOR NORTHERN SECTOR

<u>LAMB:EWE</u>	<u>RAM:EWE</u>	<u>YEARLING:EWE</u>
34:100	39:100	30:100

DESERT BIGHORN CENSUS FOR THE SOUTHERN SECTOR  
of  
ANZA-BORRIGO DESERT STATE PARK  
July 19-21, 1974\*\* (See footnote)

<u>Location</u>	<u>COUNT</u>						<u>AGE &amp; SEX RATIOS</u>		
	<u>Ram</u>	<u>Ewe</u>	<u>Lamb</u>	<u>Yearlings</u>	<u>Unidentified</u>	<u>Total</u>	<u>Lamb:Ewe</u>	<u>Ram:Ewe</u>	<u>Yearling:Ewe</u>
Crotch Spring	0	0	0	0	0	0			
Grapevine Spring	0	0	0	0	0	0			
Jacumba Jim Spring	1	3	0	0	0	4			
Cimaro'n Spring	0	2	0	1	0	3			
Four Frogs Spring	1	2	0	1	0	4			
Blackwater Spring	3	21	4	2	0	30	19:100	14:100	10:100
Diablo Spring	4	15	0	0	0	19	0:100	26:100	0:100
Carrizo Canyon	0	3	1	0	0	4			
Carrizo Gorge (Dry)	0	0	0	0	0	0			
Carrizo Palms	0	9	2	1	0	12			
Macho Spring	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>6</u>			
	9	55	7	5	6	82			

\*\*Due to the unexpected cool temperatures and slight rainfall, the total number of observed sheep does not reflect the entire population known to exist in all of the areas counted.



DESERT BIGHORN CENSUS FOR THE NORTHERN SECTOR  
of  
ANZA-BORREGO DESERT STATE PARK  
July 12-14, 1974\*\* (See footnote)

<u>Location</u>	<u>COUNT</u>					<u>AGE &amp; SEX RATIOS</u>			
	<u>Ram</u>	<u>Ewe</u>	<u>Lamb</u>	<u>Yearlings</u>	<u>Unidentified</u>	<u>Total</u>	<u>Lamb:Ewe</u>	<u>Ram:Ewe</u>	<u>Yearling:Ewe</u>
Rattlesnake Spring	1	2				3			
Middle Willows	2	16	4	4		26	]37:100	42:100	26:100
Monkey Hill	6	3	3	1		13			
Lower Salvador Cyn	1					1			
Upper Salvadore Cyn	1	7		2		10			
N. Fk. Sheep Canyon	2	7		1		10			
W. Fk. Sheep Canyon	2					2			
Cougar Canyon	1	1		6		8			
Deering Canyon					5	5			
Upper Borrego Palm Cyn	4	14	6	1	2	27	43:100	28:100	7:100
1st Grove, Borrego Palm Cyn	3	2	2			7			
Lower Willows	5	18	4	2		29	22:100	28:100	11:100
Upper Hellhole Canyon	9	2				11	]13:100	150:100	25:100
Lower Hellhole Canyon	3	6	1	2		12			
Big Spring, Tubb Canyon	3					3			
Middle Spring, Tubb Cyn	<u>2</u>	<u>10</u>	<u>1</u>	<u>5</u>	<u>—</u>	<u>18</u>	10:100	20:100	50:100
TOTALS	45	88	21	24	7	185			

\*\*Due to unexpected cool temperatures and slight rainfall, the total number observed does not reflect the entire population known to exist in all of the areas counted.

## SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP

## BIGHORN CENSUS

August 3, 4 &amp; 5, 1973

Location	Count					Age and Sex Ratios	
	Ram	Ewe	Yearling	Lamb	Total	Lamb: Ewe	Ram: Ewe
blo Spring*	4	7	0	1	12	Small Sample	
ck Water Spring**	7	27	3	0	37	0: 100	25: 100
r Frogs Spring***	5	5	1	0	11	Small Sample	
arón****	1	5	0	0	6	Small Sample	
umba Jim*****	1	1	1	0	3	Small Sample	
khouse Canyon	2	0	0	0	2	Small Sample	
t Ridge Carrizo Canyon	2	2	0	0	4	Small Sample	
rizo Palms	Not Counted						
TOTALS	22	47	5	1	75		

\* NE $\frac{1}{4}$  of SW $\frac{1}{4}$ , Sec. 36, T16S, R7E, 2100 ft.\*\* SE $\frac{1}{4}$  of NE $\frac{1}{4}$ , Sec. 36, T16S, R7E, 1720 ft.\*\*\* SW $\frac{1}{4}$  of SW $\frac{1}{4}$ , Sec. 24, T16S, R7E, 1200 ft.\*\*\*\* NW $\frac{1}{4}$  of NE $\frac{1}{4}$ , Sec. 23, T16S, R7E, 1320 ft.\*\*\*\*\* SE $\frac{1}{4}$  of SE $\frac{1}{4}$ , Sec. 11, T16S, R7E, 1160 ft.

ght thunder showers were received in all canyons on the 2nd and 3rd, and a heavy thunder shower occurred on the 4th.  
e thunder shower activity is a reasonable explanation for the low number of sheep observed.

## ANZA-BORRERO DESERT STATE PARK

## BIGHORN CENSUS

(July 1, 2 &amp; 3, 1973)

TABLE V

<u>Location</u>	<u>Ram</u>	<u>Ewe</u>	<u>Count</u>			<u>Age and Sex Ratios</u>	
			<u>Yearling</u>	<u>Lamb</u>	<u>Total</u>	<u>Lamb : Ewe</u>	<u>Ram : Ewe</u>
Morrongo Palm Canyon	3	19	0	4	26	20 : 100	15 : 100
Sheep Canyon	1	11	0	4	16	36 : 100	9 : 100
Tubb Canyon	7	21	2	6	36	30 : 100	35 : 100
Salvadore Canyon	7	16	2	6	31	46 : 100	42 : 100
Lower Willows	3	4	1	0	8	Small Sample	
Middle Willows	21	26	8	18	73	72 : 100	94 : 100
Indian & Deering Canyons	0	0	0	0	0	0	0
Rattlesnake Spring	<u>10</u>	<u>15</u>	<u>8</u>	<u>7</u>	<u>40</u>	46 : 100	66 : 100
Totals:	52	112	21	45	230		

1972 BIGHORN SHEEP CENSUS RESULTS

July 7, 8 and 9

TOTAL OBSERVATION INCLUDING REPEATS - 213

EXCLUDING REPEATS

<u>LOCATION</u>	<u>RAM</u>	<u>EWE</u>	<u>YEARLING</u>	<u>LAMB</u>	<u>TOTAL</u>
Borrogo Palm Canyon		5		1	
First Grove		7	1	1	
Second & Third Grove	2				
South Fork	4	17	2	3	
	6	29	3	5	43
Salvadore Canyon	<del>29</del>	3	<i>we saw four</i>	2	<del>26</del> 14
Lower Willows					
Box Canyon	2		4	3	
Upper Water	1	8			
	<del>3</del> 87	8	4	3	<del>24</del> 22
Middle Willows	25	15	6	14	
	2	1	1		
	27	16	7	14	64
Sheep Canyon	1	12		2	
	4	6		1	
	5	18		3	26
Indian Canyon					0
Cougar Canyon		2			2
Culp Overlook					0
Tubb Canyon	7	10	<i>four were repeats</i>		<del>17</del> 13
TOTAL	<del>61</del>	86	14	27	198
	71:00		16:00	31:00	

1971 SIGHORN SHEEP CENSUS RESULTS

August 20, 21 & 22

TOTAL OBSERVATIONS  
(INCLUDING REPEATS)

RAM			EWE	YEARLING		LAMB	
1/2	3/4	FULL		M	F	M	F
5	34	31	46	5	9	4	7

GRAND TOTAL - 141

2. TOTAL OBSERVATIONS  
EXCLUDING REPEATS

LOCATION	RAM			EWE	YEARLING		LAMB	
	1/2	3/4	FULL		M	F	M	F

* TOBB CANYON - MIDDLE SP.	1		2	4	1	1	1	
* TOBB CANYON - BIG SP.	1							
* BELLHOLE CANYON-MAIDEN HAIR	1							
* BORRERO VALLEY CANYON-1ST GROVE	1	2		1				
* FISH POND	NONE							
* ANDELA CANYON			1					
* COBBAR CANYON				1	1			
* SHEEP CANYON - S. FORK		5	6	8	2	2	2	5
* SHEEP CANYON - N. FORK	1	3	4	4		2		
* SHEEP CANYON CAMPGROUND		2						
* SALVADORE CANYON (DRY)		1						
* SIX VALLEY		1		3		1		
* MIDDLE WILLOWS		3	2	5		1		
* MIDDLE WILLOWS	3	7	11	12	1	1	1	2
	5	27	26	33	5	8	4	7

PLUS 1 UNIDENTIFIED AT MIDDLE WILLOWS

GRAND TOTAL - 121

WE ACCIDENTALLY EXPERIENCED A HEAVY THUNDERSTORM ON THE EVENING OF AUGUST 21.

WINDS BLASTED US IN THE EVENING HOURS FROM CAMPING LOCATION.

THE HIGH COUNT OF RAM TOTALS IS PROBABLY DUE TO RUTTING ACTIVITY; RAMS WERE HEARD TO BE BELLOWING AS IF WAITING FOR EWES TO COME IN. MAY BE SOME OF THEM WERE NOT TRANSLATED.