

PERSONNEL OF THE KOFA GAME RANGE
YUMA, ARIZONA OFFICE

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(transferred 8/27/72)
Acting Zone Supervisor Monte M. Dodson
(Zone Ecologist)
Administrative Clerk Roy L. Ford
Clerk-Typist Olga V. Pelayo

REGULAR KOFA GAME RANGE PERSONNEL

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Assistant Refuge Manager Robert C. Furlow
(transferred 5/28/72)
Assistant Refuge Manager Joe B. Rodriguez
(EOD 6/30/72)
Maintenance Junior L. Phillips
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(transferred 12/10/72)

Original to Wash. 8/8/73

NARRATIVE REPORT

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1972 KOFA GAME RANGE NARRATIVE REPORT

I. GENERAL

- A. Weather Conditions. The average temperature and rainfall were slightly above normal in 1972. There was abnormal cold weather in January and December. Warming began in mid-February and abnormally high temperatures remained until August. In May, a light shower brought some relief to a portion of the Kofa Game Range, since no measureable rainfall had been recorded for over four months. Rains in late September and October brought welcome relief from the dry conditions and revitalized the dry countryside. Temperatures dipped in December and below normal temperatures were recorded throughout the month. In addition, a light snow was reported in the Kofa Queen Canyon peaks and several tanks visited had over a quarter inch of ice.

Weather data from the Rob Roy Weather Station (located on the south side of the Kofa Mountains) provided some idea of actual weather conditions experienced in a portion of the Kofa Game Range throughout the year. Table 1 illustrates the weather picture from the weather station.

TABLE 1. ROY ROY WEATHER STATION DATA

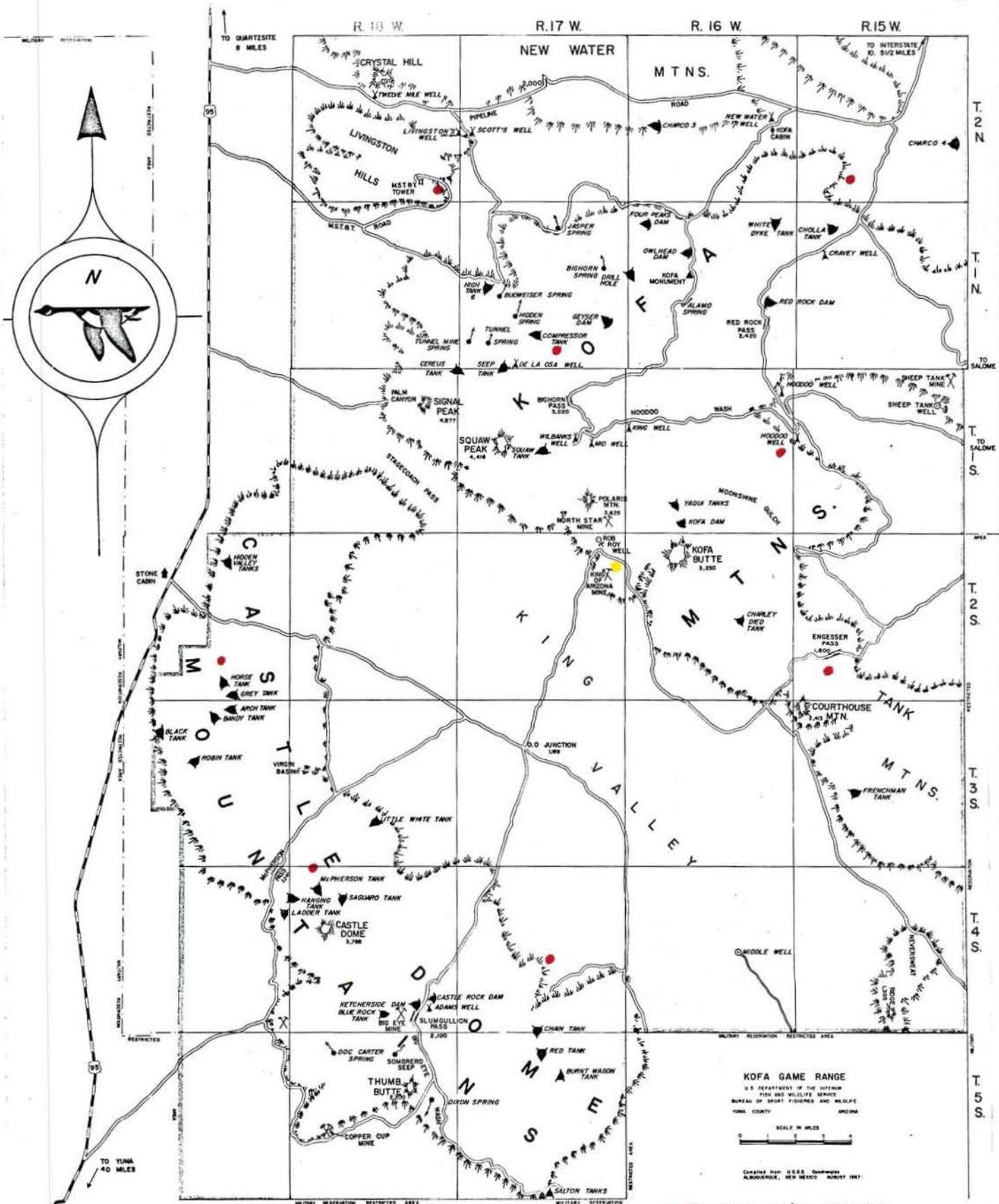
Month	Precipitation	Temperatures	
		Maximum	Minimum
January	0.0	72	31
February	0.0	86	39
March	0.0	93	44
April	0.0	93	43
May	0.18	96	53
June	0.13	111	63
July	T	111	75
August	0.49	*112	68
September	0.37	101	62
October	2.72	99	42
November	0.32	79	41
December	0.48	76	*28
<hr/>			
Total	4.69	--	--
Maximum	2.72	*112	75
Minimum	0.00	72	28

Our second source of weather data is the Yuma Proving Ground Weather Station. The weather station is located a few miles southwest of the Game Range. In some cases, the weather data from one weather station provides a sharp contrast with the data from the other. The weather data from Yuma Proving Ground is summarized in Table 2.

TABLE 2. YUMA PROVING GROUND WEATHER STATION DATA

Month	Precipitation	Temperature		
		Maximum	Minimum	Average
January	0.0	76	*27	52
February	0.0	90	35	61
March	0.0	95	45	72
April	T	96	47	73
May	T	101	54	80
June	1.31	113	68	89
July	T	*116	74	96
August	0.24	115	68	90
September	T	105	64	86
October	3.78	103	49	71
November	0.12	81	41	59
December	0.18	75	28	53
Total	5.63	- -	- -	- -
Maximum	3.78	*116	74	96
Minimum	0.00	75	*27	52

Our final source of weather data comes from eight Bureau rain gauges located throughout the Game Range: four are located in the Kofa Mountains and four in the Castle Dome Mountains. Because of the sporadic and scattered rainfall in the desert, the eight Bureau rain gauges provide us with rainfall data for eight specific areas; this information gives us a picture of the rainfall pattern in the Game Range. Table 3 illustrates the variation of rainfall within the Game Range, from one location to another, and from year to year.



KOFA GAME RANGE
 U.S. DEPARTMENT OF THE INTERIOR
 BUREAU OF SPORT FISHERIES AND WILDLIFE
 YUMA COUNTY, ARIZONA

SCALE IN MILES
 0 1 2 3 4

COPYED FROM U.S.G.S. QUARTZSITE
 ALBUQUERQUE, NEW MEXICO, NOVEMBER 1947

- Bureau rain gauges
- Rob Roy Weather Station

TABLE 3.

BUREAU RAIN GAUGE DATA

Gauge Location	Total Annual Precipitation (Inches)		
	1972	1971	1970
Burro Canyon	5.29	5.43	7.29
Chain Tank	3.14	3.80	3.45
Cravey Well	3.36	8.17	3.90
Engesser Pass	3.61	5.62	5.64
Hoodoo Well	4.57	3.75	6.31
Horse Tanks	4.26	1.57	3.81
McPherson Tank	4.85	3.20	3.32
MST&T	3.34	5.41	4.70

B. Habitat Conditions.

1. Water. Spring rains were minimal this year, and, as a result, water supplies were dangerously low at the end of the summer. De la Osa Well and Adam's Well were inoperative during the later part of the summer; H.T. 6 and Cereus Tank were dry in August; and Horse Tanks, Little White Tanks, H.T. 7, and H.T. 8 were critically low in late September. Fortunately, most tanks provided at least a mouthful of water until the first good rains in October. The total rainfall for October was the greatest amounts of rainfall recorded for any one month since the late fifties. After October all natural and manmade catchments were full of water.

The only water haul this year was to Saguaro Tank. One thousand gallons were hauled in May. The tank held a few inches of water until it was replenished by rainfall. At present, the tank has three feet of water, although it was full in late October. Earlier, the tank was treated with bentonite. However, it appears that either the bentonite did not seal the tank or it scoured out. Further efforts will be made to seal the tank.

2. Food and Cover. Forage during the spring and summer paralleled last year's extremely dry and poor condition. Some forage was available in the form of dried grasses

and woody perennials. The legumes such as mesquite, ironwood, white-thorn acacia, paloverde, and catclaw produced a sporadic and limited seed crop. Coffeeberry nut production was also spotty and limited. Throughout the summer an occasional cresote bush, false mesquite plant, and ratany plant were seen flowering. However, little green forage was available until after the October rains. These late summer rains brought relief from the dry conditions and hot temperatures. Annuals immediately sprouted and flowered and within a few weeks they were followed by short season annual grasses. At present, vegetation conditions are not much better than last year, although some green forbs, shrubs and plants are available in some areas.

II. WILDLIFE

A. Migratory Birds.

1. Water and Marsh Birds. Cinnamon teal, shovelers, coots, pintails, and several killdeer were seen on the Crowder stock tanks in November and December. The desert stock tanks provide favorable, intermittent rest stops for migratory birds and every year a sprinkling of ducks and other waterbirds is seen during the winter months.

2. Mourning and white-winged doves. Frequent observations of mourning and white-winged doves were made throughout the year. However, large build-up of the dove population was not evident; the persistent dry weather leading to poor seed and fruit crops, obviously provided unfavorable conditions for nesting and rearing young.

The dove population started building up in late March. Frequent sightings were made near watering areas. However, the desert dove population remained small through spring and summer. Towards the end of September, the dove population dwindled to only a few birds. In November, small numbers of mourning doves were observed near stock tanks, and a few birds remained all winter.

B. Upland Game Birds. Gambel's Quail. Judging from the small coveys of adult birds sighted infrequently, brood production was poor. In 1971, it was estimated that between

three and five thousand birds were present in the Kofa Game Range during their peak population. This year, since brood production was also very poor, the bird population at its peak is estimated between two and four thousand quail.

C. Big Game Animals.

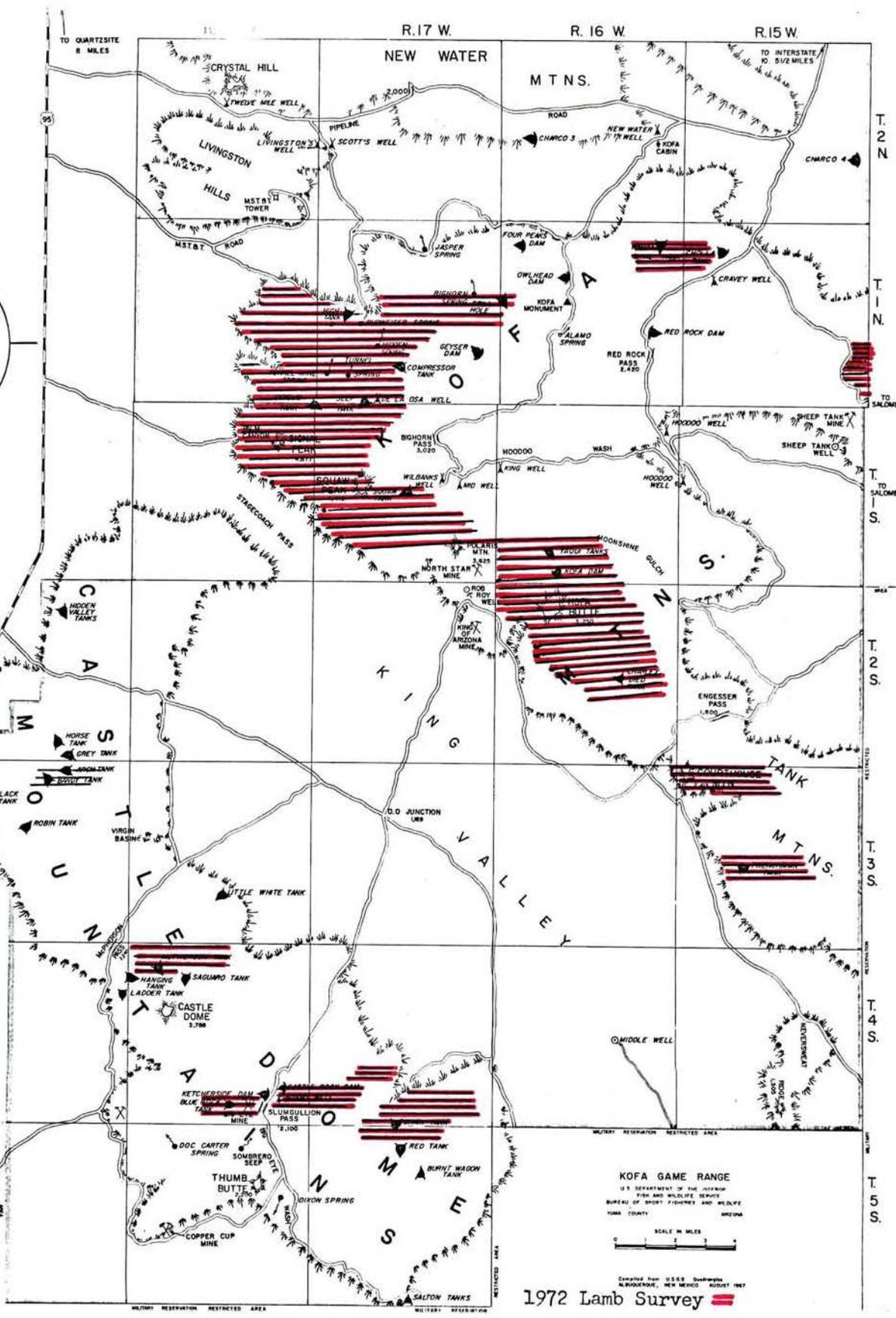
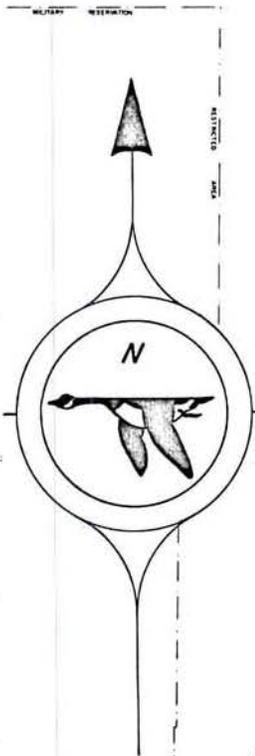
1. Desert Bighorn Sheep. The bighorn sheep population on the Kofa Game Range was estimated from the annual winter lamb survey, an aerial survey, known losses, and estimated losses. A total of 215 sheep were counted during the winter lamb survey and the aerial survey. The surveys were estimated to be an 80% count of the total sheep population. The greatest number of sheep, derived from the above surveys, was 269: 39 rams, 130 ewes, 64 lambs, 30 yearlings, and 6 unclassified. This population estimate reflects the population level after the lambing period or about April 1. The sheep population level at the end of the year was estimated to be 201: this figure reflects the sheep population on December 31, 1972. The figure includes lamb mortality, hunting losses, other known losses, and estimated losses. The lamb mortality was estimated to be 70% or 45 lambs; the hunting loss was 10 rams; other known losses were 2 rams and 1 ewe; and the other mortality was estimated to be 5% (11 sheep) of the population exclusive of lamb loss, other known losses, and hunting loss. The remains of 2 rams and 1 ewe were found during the year; this known losses were deducted from the original estimates.

The annual winter lamb foot survey conducted in the Kofa, Little Horn, and Tank Mountains was from March 13-17. Seven Bureau personnel, six Arizona Game & Fish personnel, and one Arizona Desert Bighorn Society member participated in the count. Temperatures were about 10° above normal with daylight temperatures in the low 90's and night-time temperatures in the low 50's. Winds were light to moderate and skies were clear throughout the survey. General vegetative conditions were poor. Very few plants were in bloom. Perennial and annual grasses were dried out and produced very little forage. Most of the major improved and natural tanks still had ample water and, in fact, this was the only water available.

One hundred and sixty-one (161) sheep, 25 rams, 76 ewes, 37 lambs, 20 yearlings and 3 unclassified sheep, sightings were made this year in the Kofa, Tank and Little Horn Mountains. Forty-two man-days were spent on this survey compared to 27 last year. This increase is due to the addition of 6 Arizona Game and Fish personnel. The 42 man-days equal 336 man-hours which gives 1.9 man-hours per sheep seen; this compares to 2.4 in 1971 and 1.5 in 1970.

All sheep observed appeared to be in good condition. The largest group observed consisted of 23: 11 ewes, 9 lambs, and 3 yearlings. The remains of 1 dead ram were also found in the Kofa Mountains. (see table 4 & 5 for summary of this count.)

In the Castle Dome Mountains, a foot survey was also conducted from March 13-16. Two Bureau observers and two Arizona Game & Fish personnel participated. The range conditions were also dry in these mountains. Major tanks held ample water and forage conditions were from fair to poor. A total of 22 (6 rams, 12 ewes, 3 lambs, and 1 yearling) non-duplicate sightings were made. A total of 12 man-days were spent on this survey. This equals 96 manhours which gives 4.4 hours per sheep seen. The largest group of sheep seen was a group of 10 (7 ewes, 3 lambs) just west of McPherson Tank.



1972 Lamb Survey

TABLE 4. SUMMARY OF THIS YEAR'S WINTER LAMB SURVEY IN THE KOFA, TANK, AND LITTLE HORN MOUNTAINS

DATE:	LOCATION	:TIME:	RAM:	EWE:	LAMB:	YRLG:	UNCL:	TOTAL
3/13:	Mouth of Kofa Queen Canyon	:1610:	:	4	2	2	:	8
3/14:	West side of Summit Canyon	:0820:	:	1	:	1	:	2
3/14:	" " " " "	:0825:	2	:	:	:	:	2
3/14:	Above Tunnel Spring	:1005:	:	1	:	2	:	3
3/14:	1/2 mile west of Signal Peak	:1015:	:	6	5	:	:	11
3/14:	1 mile NE of Old Smokey	:1030:	:	2	1	:	:	3
3/14:	Above Tunnel Spring	:1040:	:	1	:	:	:	1
3/14:	1/2 mile west of Signal Peak	:1135:	:	2	2	:	:	4
3/14:	" " " " " "	:1145:	1	2	2	1	:	6
3/14:	Head of Summit Canyon	:1145:	:	1	:	1	:	2
3/14:	2 miles N. of Squaw Peak	:1155:	3	:	:	:	:	3
3/14:	1 mile NE Squaw Peak	:1250:	1	:	:	:	:	1
3/14:	3/4 mile SW Cripple Tank	:1400:	1	:	:	:	:	1
3/14:	Head of Surprise Canyon	:1545:	:	1	:	:	3	4
3/14:	Unit 17	:1550:	1	:	:	:	:	1
3/14:	Head of Surprise Canyon	:1555:	:	11	9	3	:	23
3/14:	Ten Ewe Mountain	:1755:	:	3	:	:	:	3
3/14:	" " " "	:1830:	1	:	:	:	:	1
3/14:	Mouth of Indian Canyon	:1855:	1	:	:	:	:	1
3/14:	Unit 11	:-----:	:	2	:	:	:	2
3/15:	1/4 mile N. of Cereus Tank	:0805:	:	1	:	:	:	1
3/15:	3/4 mile NW of Cereus Tank	:0945:	:	1	:	:	:	1
3/15:	South fork of Four Palms Can.	:1120:	4	:	:	:	:	4
3/15:	Head of Lonesome Canyon	:1120:	2	:	:	:	:	2
3/15:	1 mile E. of Towhee Tank	:1225:	:	8	5	2	:	15
3/15:	Head of Oak Canyon	:1410:	:	6	4	2	:	12
3/15:	3/4 mile W. of High Tank 9	:1430:	:	1	1	:	:	2
3/15:	1/2 mile W. of Cripple Tank	:1530:	:	1	1	:	:	2
3/15:	1 mile N. of Tunnel Mine	:1603:	:	2	1	1	:	4
3/15:	Twin Spires	:1630:	:	3	1	2	:	6
3/15:	High Tank 7	:1830:	:	1	:	:	:	1
3/15:	East side of Kofa Butte	:-----:	:	1	:	:	:	1
3/15:	3/4 mile SW of Cereus Tank	:-----:	5	:	:	1	:	6
3/16:	High Tank 2	:1000:	:	1	1	:	:	2
3/16:	1 mile SE Bighorn Spring	:1120:	2	:	:	:	:	2
3/16:	2 miles S. Bighorn Spring	:1130:	:	3	:	:	:	3
3/16:	Drill Hole	:1330:	1	6	5	1	:	13
3/16:	Bighorn Spring	:1500:	:	1	:	:	:	1
3/16:	Unit 23	:-----:	:	1	:	1	:	2
3/16:	3/4 mile NW Sheep Tank Mine	:-----:	:	2	:	:	:	2
3/17:	No observations this date	:-----:	:	:	:	:	:	:
TOTALS			25	76	37	20	3	161

TABLE 5. SUMMARY OF WINTER LAMB SURVEY FOR THE KOFA GAME RANGE

<u>KOFA,</u>	<u>TANK,</u>	<u>LITTLE HORN MOUNTAINS</u>			
<u>Rams</u>	<u>Ewes</u>	<u>Lambs</u>	<u>Yrlgs</u>	<u>Uncl</u>	<u>Total</u>
25	76	37	20	3	161

CASTLE DOME MOUNTAINS

<u>Rams</u>	<u>Ewes</u>	<u>Lambs</u>	<u>Yrlgs</u>	<u>Uncl</u>	<u>Total</u>
6	12	3	1	0	22

KOFA GAME RANGE

<u>Rams</u>	<u>Ewes</u>	<u>Lambs</u>	<u>Yrlg</u>	<u>Uncl</u>	<u>Total</u>
31	88	40	21	3	183

<u>KOFA,</u>	<u>TANK,</u>	<u>LITTLE HORN MOUNTAINS</u>		
Rams	:	Ewe	1	: 3
Ewes	:	Lamb	2	: 1
Lamb	:	Yearling	3	: 1

KOFA GAME RANGE (Animal Ratios)

Rams	:	Ewe	1	: 2.8
Ewes	:	Lamb	2.2	: 1
Lamb	:	Yrlgs	2	: 1

RAMS - AMOUNT OF CURL - KOFA, TANK, LITTLE HORN MOUNTAINS

<u>Full</u>	<u>3/4</u>	<u>1/2</u>
10	11	4

RAMS - AMOUNT OF CURL - CASTLE DOME MOUNTAINS

<u>Full</u>	<u>3/4</u>	<u>1/2</u>
2	1	3

RAMS - AMOUNT OF CURL - KOFA GAME RANGE

<u>Full</u>	<u>3/4</u>	<u>1/2</u>
12	12	7

TABLE 7 SUMMARY OF CASTLE DOME MOUNTAIN SURVEYS

AERIAL SURVEY

Rams	Ewes	Lambs	Yearlings	Unclassified	Total
5	28	14	4	3	54

FOOT SURVEY

Rams	Ewes	Lambs	Yearlings	Unclassified	Total
6	12	3	1	0	22

The final population estimates were derived by using the highest number for each classification of sheep derived from the surveys. Results from the Kofa, Tank, and Little Horn Mountains were grouped together with the results from the Castle Dome Mountains to get the population estimate for the Kofa Game Range.

D. Fur Animals, Predators, Rodents and Other Mammals.

The following species and numbers were observed during the year: 10 coyotes; 4 gray foxes; 50 burros; 20 cottontail rabbits; 15 jackrabbits; 4 bobcats; 2 badgers. No surveys have been conducted to estimate population numbers for the above mammals. Most sightings were made during the winter lamb count. Also, infrequent sightings are made during routine patrols.

E. Hawks, Eagles, Owls, Ravens, Crows and Magpies.

The following species and numbers were observed throughout the year: 30 sparrow hawks; 5 ferruginous hawks; 10 golden eagles; 5 great horned owls; 2 screech owls; 25 turkey vultures; 15 red-tailed hawks; and 5 Cooper hawks.

- F. Other Birds. One steller jay was observed on Charco 3 in November.
- G. Reptiles. Two chuckawallas, 3 diamond back rattlesnakes, and 1 Gila monster were also sighted this year.
2. Mule Deer. Most deer observations were made during the winter lamb survey. The remains of one doe were found at Little White Tanks.

TOTAL DEER OBSERVATIONS.

Bucks	Does	Fawns	Yrlgs.	Uncl.	Total
30	120	20	5	6	181

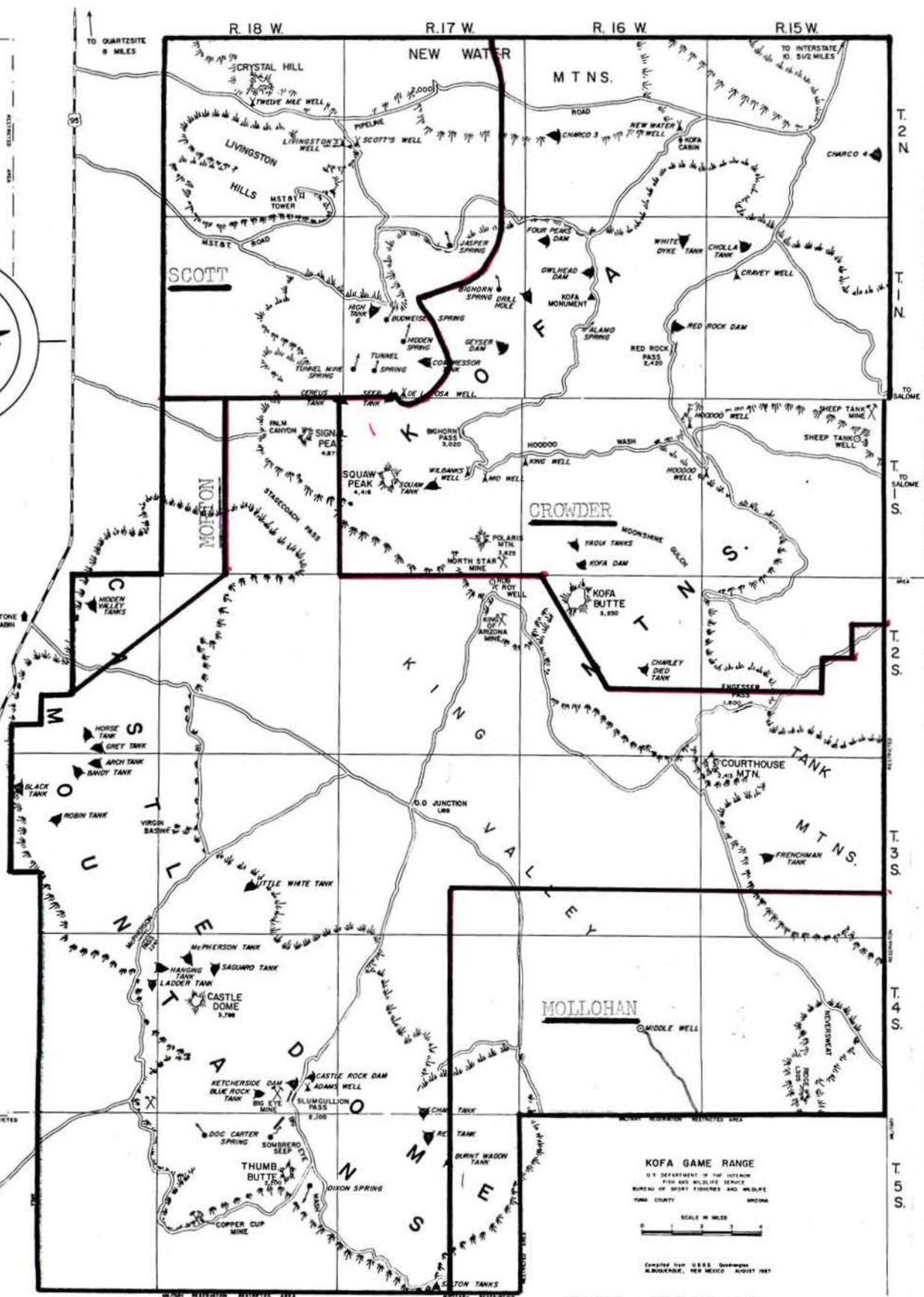
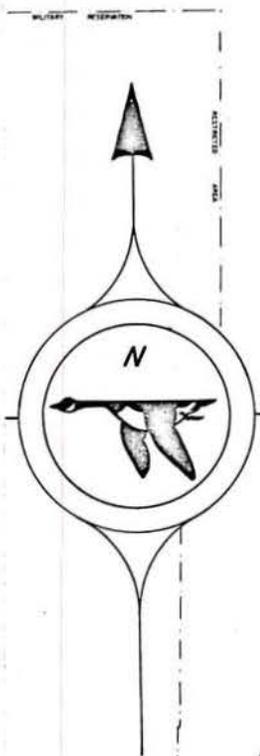
A small number of deer observations were made during patrol. The deer observed showed the effects of the dry weather, and long distances to water--many were gaunt and drawn. The estimated deer population is around two to three hundred.

III. REFUGE DEVELOPMENT AND MAINTENANCE

- A. Physical Developments. Although there were no development projects this year, routine maintenance was performed on the traffic counters. One badly corroded counter was removed and replaced. Several old Biological Survey signs were replaced with current Fish and Wildlife Service signs. Also, the float valve at De la Osa Well was repaired and replaced. In the Yuma headquarters, an additional portion of the yard was paved. The front fence and gate were also replaced.

IV. RESOURCE MANAGEMENT

- A. Grazing. The Bureau of Land Management controls grazing on the Kofa Game Range. At present there are four grazing allotments. Two of the allotments have not been utilized for several years; this are the Morton and Mollahan allotments. The other two allotments, Scott and Crowder, are



KOFA GAME RANGE
 U.S. DEPARTMENT OF THE INTERIOR
 BUREAU OF BUREAU OF FISHERY AND WILDLIFE SERVICE
 YUMA COUNTY, ARIZONA



Compiled from U.S.G.S. Survey
 Knowledge, New Mexico August 1967

Cattle Allotments

still utilized. The number of AUM's cannot be determined because the allotments are unfenced and go far beyond the Kofa Game Range boundary.

The grazing activity on the Game Range puts tremendous pressure on the forage available. In all areas utilized by the cattle, overgrazing is acute. This year very little grass was available and added pressure has been placed on the browse plants.

- B. Mining. No major mining development or operations were observed or reported in the Kofa or Castle Dome Mountains, although some activity by prospectors still continues.

V. FIELD INVESTIGATIONS OR APPLIED RESEARCH

Progress Report. Nothing to report.

VI. PUBLIC RELATIONS

- A. Recreational Use. The Crystal Hill Campground is the only area developed for visitor use. It consists of a campground built by the Bureau of Land Management to accommodate between 40 and 50 units. Use during the late spring and summer is nil. However, from late October through April, the number of units is around 100: this number may vary drastically because of the increased use during holidays when visitors other than those setting up temporary quarters for the winter and spring come in for a few days. At the present time a stay limit is not enforced and most users set up camp for six months.

The winter occupancy puts tremendous pressure on the surroundings refuge lands. The winter visitors are elderly retired or semi-retired people who make use of their time by excavating holes and looking for precious and semi-precious stones; by extensive off-road travel on trail bikes; and by whittling their time chatting and loafing in a public campground with running water and latrines at no expense.

Palm Canyon is another area of interest to visitors and local people. This area continues to draw large and small groups of interested sightseers. Use of this area appears to be increasing.

B. REFUGE VISITORS:

Visitors Purpose of Visit

JANUARY

Andrew Devin, Southwestern Assayers & Chemist, Vancouver, B.C. Information

FEBRUARY

M.G. Sheldon, Division of Wildlife Services, Phoenix, Arizona Official

Jack Woodey, Division of Wildlife Services, Albuquerque, New Mexico Official

Gail Kobetich, BSF&W
Parker, Arizona Official

Harry Bishop, BSF&W
Albuquerque, New Mexico Official

Harry D. Kennedy, BSF&W
Albuquerque, New Mexico Official

MARCH

Mr. & Mrs. John Wilbrecht, Seney NWR, Seney, Michigan Courtesy

Harry B. Crandell, Arlington, Virginia Courtesy

APRIL

Nothing to report

MAY

Nothing to report

JUNE

W.O. Nelson, BSF&W
Albuquerque, New Mexico Official

B. REFUGE VISITORS:

<u>Visitors</u>	<u>Purpose of Visit</u>
Marcus Nelson, BSF&W Albuquerque, New Mexico	Official
Lotario Ortega, BSF&W Albuquerque, New Mexico	Official

JULY

Jim A. Bottorff, U.S. Army	Information
D. F. Brom, U.S. Army	Information

AUGUST

Nothing to report

SEPTEMBER

Richard Barney, Bighorn Sheep Guide	Information
James R. Martin, USDA/FHA	Information
Forrest Eddy, Union Oil	Information

OCTOBER

Henry Martinez, Assistant Principal, Yuma High School	Information
Phil Sharpe, BR, Boulder City, Nevada	Official
Jim Romero, BR, Boulder City, Nevada	Official
Gerald W. Hight, U.S. Army, YPG Yuma, Arizona	Information

NOVEMBER

Nothing to report

B. REFUGE VISITORS:

<u>Visitors</u>	<u>Purpose of Visit</u>
<u>DECEMBER</u>	
W.O. Nelson, BSF&W Albuquerque, New Mexico	Official
Lotario Ortega, BSF&W Albuquerque, New Mexico	Official

Many other people visited the Yuma headquarters for information on hunting, camping, rockhounding, bird watching, and mining. Also, local personnel of the Arizona Game and Fish Department made frequent visits to the Yuma office.

C. REFUGE PARTICIPATION

JANUARY

Robert Thoesen attended an Arizona Wildlife Federation meeting and Arizona Game & Fish Commission meeting in Springerville, Arizona. Robert Thoesen and Monte Dodson toured the Topock Gorge with Jack Borges of the Arizona Republic.

Complex personnel attended a Defensive Driver's refresher course (8 hours) and a law enforcement session (1 day) at the Yuma office.

FEBRUARY

Ecologist Monte Dodson spent 6 days, on two separate trips, with the Arizona Desert Bighorn Sheep Society members and Arizona Game & Fish personnel on catchment improvement work in the Sand Tank and Plomosa Mountains.

Robert Thoesen and Monte Dodson met with Arizona Game and Fish personnel, Havasu personnel, and Marc Nelson in Needles, California regarding Topock Marsh diking project and proposed state lands transfer. During this meeting feral burro management was also discussed.

Duncan attended a Rural Area Development Program meeting in Yuma, concerning the establishment of a Resource Conservation and Development area. Duncan gave a short talk on the status of the Cabeza Prieta Wilderness situation.

MARCH

Bob Furlow attended a Civil Service, "Introduction to Supervision," school in Phoenix, on February 28-March 3. He also gave a slide talk to 150, 5th and 6th graders at McGraw School.

APRIL

Thoesen, Duncan, Dodson, Furlow and Creasy attended the Desert Bighorn Council meeting in Tucson, on April 5 and 6.

Thoesen attended an Arizona Game and Fish meeting in Yuma, a CRWC meeting in Las Vegas in April, and participated in the FAR Program in New Mexico and Arizona on April 17-28.

Roy Ford attended a DIPS school in Albuquerque, on April 13.

On April 6, Duncan and Stearns gave a talk in Tucson to 22 persons. The talk was focused on the Kofa Game Range and was sponsored by the Mearns Wilderness Society.

MAY

Duncan, Creasy, Furlow, Stearns, and Folzenlogen attended a 20 hour paramedic course in Yuma.

Bob Thoesen attended a Colorado River coordination committee meeting in Yuma and an Arizona Game and Fish hunting regulations meeting in Yuma; he also met with Mr. Wes Steiner of the Arizona Water Commission in Phoenix concerning Cibola water rights.

Monte Dodson attended a 10 day Audubon Institute of Desert Ecology course in Tucson, April 21-30.

Bob Thoesen and Bob Furlow attended the Yuma Valley Rod and Gun Club meeting in Yuma.

JUNE

Nothing to report

JULY

Tom Striegler attended a Law Enforcement Conference in Flagstaff, Arizona.

AUGUST

Bob Thoesen and Monte Dodson presented the Arizona Bighorn Society with a full mounted desert bighorn ram. They also discussed some possible winter projects on the Kofa. One project proposed was the cleaning out of water catchments sometime in the fall.

SEPTEMBER

The Desert Complex held open house on September 23, in commemoration of National Hunting and Fishing Day. Dodson, Striegler, Stearns, Wright and Pelayo answered questions and served coffee to visitors.

A five man Yuma Clapper Rail recovery team was formed this month with Monte Dodson, from BSF&W as coordinator. Other members are Dr. Wayne Deason, U.S. Bureau of Reclamation; Howard Leach, California Fish and Game Department; Gail Kobetich, BSF&W; and Dick Todd, Arizona Game and Fish Department.

Gerald Duncan and Monte Dodson met with Max Bruce, the new district manager for the newly created BLM District in this area.

Monte Dodson and Gordon Folzenlogen met with John Culvin, the new district Soil Conservation Service man assigned to Yuma.

Monte Dodson attended the annual Bighorn Sheep Clinic in Phoenix, Arizona on September 30.

OCTOBER

Gerald Duncan gave a slide talk to a father and son group of approximately 80 persons at the Baker Mine in the Kofa Mountains.

NOVEMBER

Gerald Duncan attended a RALI meeting in Tucson, Arizona.

DECEMBER

W.O. Nelson, Lotario Ortega and Monte Dodson participated in a Bureau of Reclamation river trip on the Colorado River.

D. HUNTING.

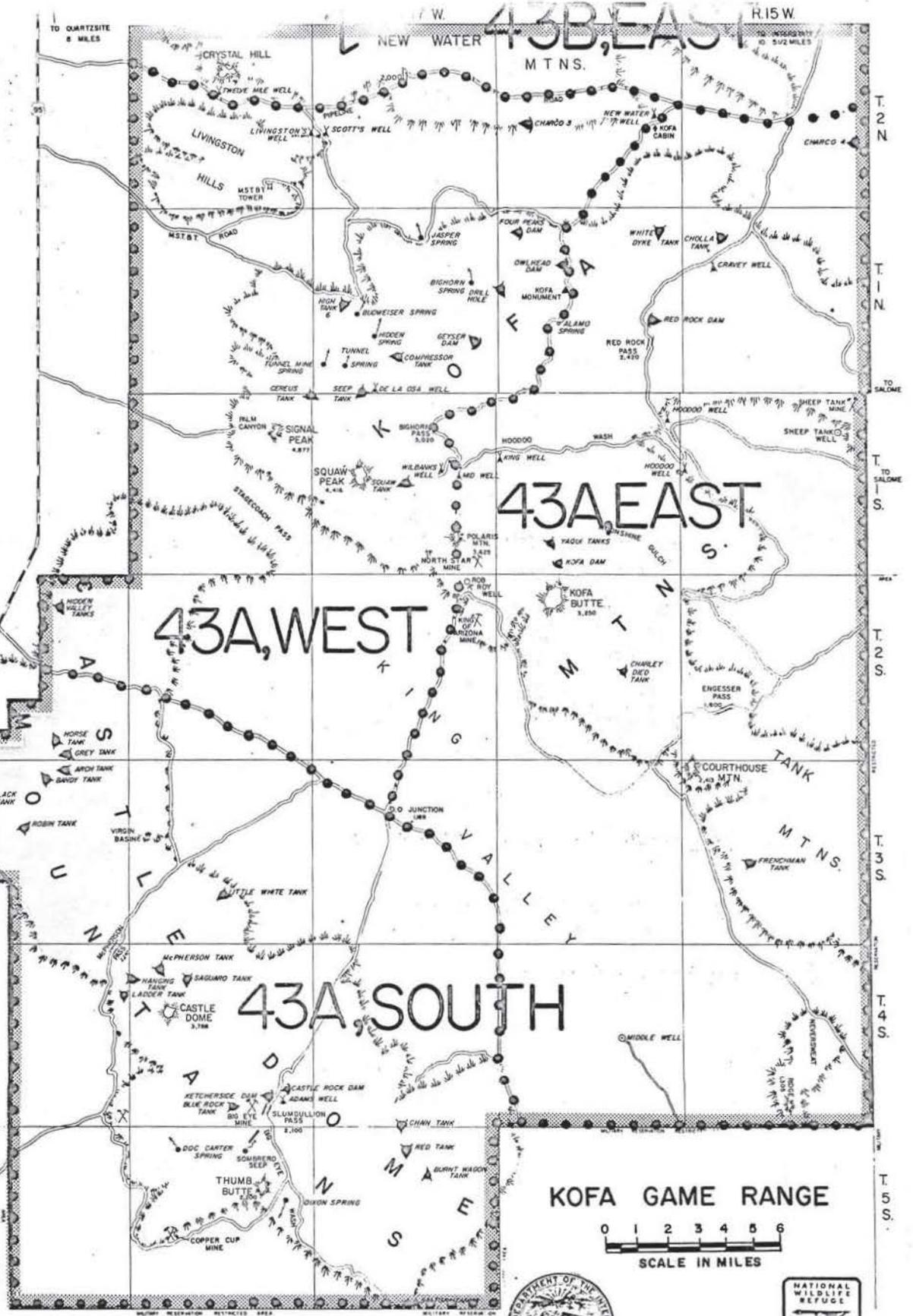
1. Desert Bighorn Sheep. For this year's bighorn sheep hunt, ten permits were issued by the Arizona Game and Fish Department. With our cooperation, the state issues and conducts the drawing for sheep permits. Seven permits were issued for the Kofa Mountains and three permits were issued for the Castle Dome Mountains. For the first time in Arizona, the regulations governing the size of the ram that could be legally taken were changed.

Instead of the 26 inches initially set as the minimum size for each horn length, the horn length for a legal ram was raised to 28 inches. Thus, the regulations now read that in order for a ram to be a legal ram it must have a minimum horn length of 28 inches for each horn; or, the ram must have a 3/4 curl.

The Kofa Game Range was divided into four units: (see page 10) 43A west, 43A east, 43A south, and 43B east. Units 43A east and 43A west split the Kofa Mountains in half; unit 43A south covered the Castle Dome Mountains; and unit 43B covered the northern uppermost 1/8 of the Kofa Game Range. Unit 43A had three permits; unit 43A east had four permits; unit 43A south had three permits; and unit 43B east had no permits. The reason for the divisions was to disperse hunters over the east side of the Game Range. In past years the vast majority of hunters have tended to concentrate their time and effort in one spot--the west end of the Kofa Mountains.

Hunter success in the Kofa Game Range was 100%. Those hunting in 43A west hunted an average of 3 days; those hunting in unit 43A east hunted an average of 5 3/4 days; those hunting in unit 43A south hunted an average of 7.1 days. Five hunters used professional guides and five did not.

The only bighorn sheep that could be considered of trophy size was a ram killed in unit 43A west. To contrast, another ram that could be called an illegal ram at first measurement was killed in the west side. Although the ram's horns measured only 22 1/8 and 24 4/8, the curl on the horn was enough for the ram to be considered a 3/4 curl. Since state regulations require that the ram measure a minimum of 28 inches or have a 3/4 curl the hunter got off lucky.

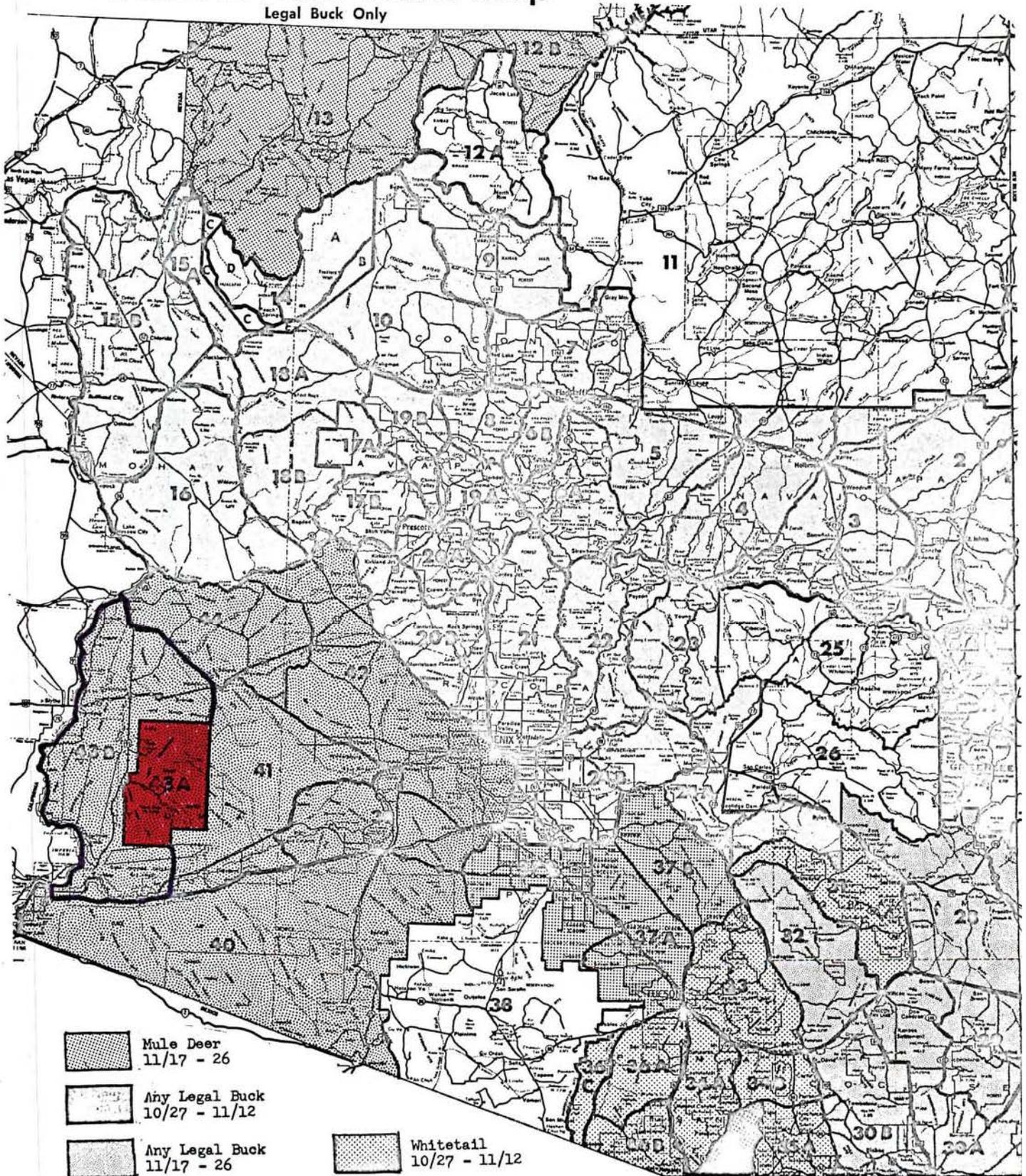


Kofa Bighorn Sheep Hunt Units



General Deer Hunt Map

Legal Buck Only



 Mule Deer
11/17 - 26

 Any Legal Buck
10/27 - 11/12

 Any Legal Buck
11/17 - 26

 Mule Deer
10/27 - 11/12

 Whitetail
10/27 - 11/12

 Two kinds of permits:
Whitetail 10/27-11/12 & Mule Deer 11/17-26

Units 43A & 43B--2000 permits —

5

Unit 43A--Kofa Game Range —

Seven sheep were 6 years old; one was 7 and one was 8; and the small 3/4 mentioned above was 4 years old. The average age was 6 years. Only one ram was in the age bracket (8 years) considered ideal for harvesting. For the last three hunts the ages of the legal rams killed have been around 6 years.

2. Mule Deer. The deer permit system is in its second year throughout the State of Arizona. The Arizona Game and Fish Department, in its efforts to control distribution of deer hunters, allotted a number of permits for each of their game management units. The Kofa Game Range is unit 43A. Two thousand permits were allotted for units 43A and 43B.

Over 1000 hunters were estimated using the Kofa Game Range during the general buck hunting season which ran from October 27 to November 12. Personnel from the Yuma office patrolled the Game Range on opening weekend and over 500 hunters were contacted. Several week-day patrols were made later in the season.

Success for the deer hunt was very poor; it was estimated that about 20 deer were killed. In this part of the country, hunting is mostly by four-wheel drive vehicles. Very little foot hunting takes place and, as a result, off road travel has increased in areas accessible to motor vehicles. Some hunters claimed that the hunting pressure was increasing in the Game Range and that fewer bucks were available, although many does were sighted.

The archery season opened in September 8 and closed on September 24. No indications of deer hunting activity were observed. It appears that archery season is not a big sporting event in the Game Range although the area has been open to such hunting for over five years. Possibly the 100+ temperatures have something to do with it.

3. Quail, Rabbit and Predators. Quail, rabbit and predator season was open from October 1 through November 30. Any quail, rabbit, or predator hunting done during this season is incidental to deer hunting. When populations are high, deer hunters will take time from deer hunting to shoot quail. However, the small and scattered coveys of quail found this year were not large enough to warrant special hunting trips. Shotgun shells were found near water holes so it appears that some quail hunting is taking place.

- E. Violations. Two violators were apprehended during the general hunt deer season. While on a weekday patrol, two hunters were routinely checked for hunting licenses, permits, and deer tags. One of the hunters mistakenly pulled out his deer permit and his son-in-law's hunting license and deer tag. The old boy admitted that he had borrowed the above items from his son-in-law. Both parties were cited for the violations and subsequently each paid a \$25.00 fine in U.S. Magistrate Court.
- F. Safety. No time was lost due to accidents this year. Safety meetings were held monthly. Films and discussions helped to make personnel aware of unsafe conditions and to pursue corrective action.

VII. OTHER ITEMS

- A. Items of Interest. Robert W. Thoesen transferred to Utah as area manager for the new Region VI. At present the position of zone supervisor is vacant and Monte M. Dodson is acting zone supervisor.

Gordon Folzenlogen transferred to Victoria, Texas to serve as wildlife biologist in the Coastal Zone Refuges. During his assignments in Yuma, Gordon worked as wilderness specialist and assisted David Stearns on wilderness studies.

Joe Rodriguez EOD in June took over the Kofa refuge manager trainee position.

Bob Furlow the assistant Kofa refuge manager transferred to Bear River in May. Bob had been assigned to the Kofa for over two years.

- B. Photographs. Photos credits are indicated next to photo.
- C. Credits. This report was compiled and written by Joe Rodriguez and typed by clerk-typist Olga Pelayo.

NATIONAL WILDLIFE REFUGE SYSTEM
PUBLIC USE REPORT

ACT HRS BY MONTH

KOFA GAME RANGE
02-3511-00-KGR

ACTIVITY NAME	JUL-71	AUG-71	SEP-71	OCT-71	NOV-71	DEC-71	JAN-72	FEB-72	MAR-72	APR-72	MAY-72	JUN-72	12 MONTH TOTAL
RECREATION-WILDLIFE WILDLANDS													
OTHER CONSUMPTIVE W/W REC						22100	22000	22000	8000	400	120		74620
ON REF W/LDLFE OBSERVATN						200	200	200	140	80	80		900
ON REF OTH? W/W N-C REC													
WALKING/HIKING						3750	600	600	225	90	30		5295
PHOTOGRAPHY						30	45	45	45	30	9		204
SIGHTSEEING						800	2000	2000	1600	400	200		7000
RECREATION NON-WILDLIFE													
CAMPING						72000	54000	54000	21600	3600	900		206100
PICNICKING						50	50	50	250	60	60		520
TOTAL OTHER W/W RECREATION													
						26880	24845	24845	10010	1000	439		88019
TOTAL WILDLIFE ORIENTED													
						26880	24845	24845	10010	1000	439		88019
TOTAL NON-WILDLIFE ORIENTED													
						72050	54050	54050	21850	3660	960		206620
TOTAL PUBLIC USE													
						98930	78895	78895	31860	4660	1399		294639
NO. VISITS TO REFUGE													
						600	700	700	500	250	150		2900

NATIONAL WILDLIFE REFUGE SYSTEM
PUBLIC USE REPORT

VISITS BY MONTH

KOFA GAME RANGE
02-3511-00-KGR

ACTIVITY NAME	JUL-71	AUG-71	SEP-71	OCT-71	NOV-71	DEC-71	JAN-72	FEB-72	MAR-72	APR-72	MAY-72	JUN-72	12 MONTH TOTAL
RECREATION-WILDLIFE WILDLANDS													
OTHER CONSPICUOUS W/W REC							5525	5500	5500	2000	100	30	18655
ON REF WILDLIFE OBSERVATN							50	50	50	35	20	20	225
ON REF OTHER W/W N-C REC							625	100	100	75	30	10	940
WALKING/HIKING							10	15	15	15	10	3	68
PHOTOGRAPHY							200	500	500	400	100	50	1750
SIGHTSEEING													
RECREATION NON-WILDLIFE													
CAMPING							6000	4500	4500	1800	300	75	17175
PICNICKING							25	25	25	125	30	30	260
TOTAL OTHER W/W RECREATION							6410	6165	6165	2525	260	113	21638
TOTAL WILDLIFE ORIENTED							6410	6165	6165	2525	260	113	21638
TOTAL NON-WILDLIFE ORIENTED							6025	4525	4525	1925	330	105	17435
TOTAL PUBLIC USE							12435	10690	10690	4450	590	218	39073
NO. VISITS TO REFUGE							600	700	700	500	250	150	2900

NATIONAL WILDLIFE REFUGE SYSTEM
 WILDLIFE USE REPORT
 ALL REPORTED SPECIES FOR FY 72
 (EXCLUDING WATERFOWL)
 FY-72

MCEA GAME RANGE
 G2-3511-GC-KGR

***** USE DAYS ***** FY-NO. FY-NO. FY-PEAK
 LINE CODE JUL-SEP 71 OCT-DEC 71 JAN-MAR 72 APR-JUN 72 FY TOTAL PRODUCED HARVESTED POPULATION DATE

SPECIES NAME	USE DAYS					FY-NO.	FY-NO.	FY-PEAK	DATE		
	JUL-SEP 71	OCT-DEC 71	JAN-MAR 72	APR-JUN 72	FY TOTAL						
THREATENED SPECIES											
ENDANGERED											
PEREGRINE FALCON	700	3560	0	0	0	1460	1460	0	0	4	04/15
REGISTERED											
PRAIRIE FALCON	701	3550	0	0	150	1460	1610	0	0	4	04/15
DESERT TURTLE	701	8110	0	0	0	0	20805	0	0	57	06/30
GILA MONSTER	701	8120	0	0	0	0	14600	0	0	40	06/30
NATIONALLY UNIQUE SPCS											
DESERT BIGHORN	710	7931	0	0	0	0	69640	0	0	3	04/01
FEKAL BURN	710	7970	0	0	0	0	14600	0	0	0	07/01
SPECIAL REUG SPECIES											
MARSH HAWK	720	3310	0	0	0	730	730	0	0	6	04/15
SHARP SHINNED HAWK	720	3320	0	0	150	3650	3800	0	0	20	04/15
COOPERS HAWK	720	3330	0	0	0	3650	3650	0	0	20	04/15
RED TAILED HAWK	720	3370	0	0	900	4550	4550	0	0	25	04/15
GULCHEN EAGLE	720	3490	0	0	450	1825	2275	0	0	5	03/15
SPARKOW HAWK	720	3600	0	0	6000	21900	27900	0	0	100	04/15
SCREECH OWL	720	3730	0	0	4000	21900	25900	0	0	60	06/01
GREAT HORNED OWL	720	3750	0	0	450	14600	15050	0	0	40	06/01
ELF OWL	720	3810	0	0	2000	36500	38500	0	0	100	03/00
TOTAL	0	0	0	0	14100	111325	245070	0	0	3	

NATIONAL WILDLIFE REFUGE SYSTEM
REPORT OF MISCELLANEOUS OUTPUTS
FY-72

KOFA GAME RANGE
02-3511-00-KGR

TYPE OF OUTPUTS	UNITS	FY TOTAL
ENVIRONMENTAL PRESERVATION		
NATURAL ENVRMNTS PRESR	ACRE	660000
NATURAL AREAS		
THREATND CMUNITY RES	AREA	200
MISCELLANEOUS WILDLIFE OUTPUTS		
WILDLIFE DIVERSITY	USE DAYS	124

Submitted by:

Joe B. Rodriguez Jr.
Joe B. Rodriguez Jr.
Assistant Refuge Manager

Reviewed by:

Gerald E. Duncan
Gerald E. Duncan
Acting Refuge Manager

Date: _____

Reviewed in Regional Office:

/s/ Ernest C. Martin

Acting Regional Director

Martin
7-27-73

Date: **AUG 7 1973**



Another activity that is currently increasing in popularity among the winter visitors is motorcycle riding. The two-wheeled vehicles allow the riders to travel almost anywhere--cross country, washes, trails, and rough roads. As a result, human encroachment has increased in many areas and prime wildlife habitat has been subjected to heavy use and disturbance.



The Crowder-Weisser Cattle Company has plans to construct another corral, similar to the one shown in the photo but smaller, in Wilbanks Wash in the center of the Kofa Mountains. The corral will be near a charco built by Crowder in the early 60's.



Smoketree (Dalea spinosa) is an inhabitant of dry, sandy washes in the Kofa Game Range.



Ironwood (Olneya tesota) is a common dweller of the hot, sandy washes and canyons. Local people and visitors commonly use the dry wood for making artifacts. Patience and stamina are needed to work the extremely dense wood.