

FILE
6620.2

PERFORMANCE REPORT

W-53-R-30, WP-2, J-1

SPECIES: Mule Deer

MANAGEMENT UNIT: 13B

DESCRIPTION: Beginning on the western edge of the Hurricane Rim at the Utah state line; southerly along the western edge of the Hurricane Rim to the Mt. Trumbull Road; west along the Mt. Trumbull Road to the town of Mt. Trumbull (Bundyville); south along Main Street from the town of Mt. Trumbull (Bundyville) to Whitmore Canyon, and southeast along the bottom of Whitmore Canyon to the Colorado River; westerly along the Colorado River to the Nevada state line; north along the Nevada state line to the Utah state line; east along the Utah state line to the western edge of the Hurricane Rim.

POPULATION CHARACTERISTICS:

No wildlife manager was assigned to management Unit 13B during the fall of 1979 and winter of 1979-80. Therefore no foot, horseback, or vehicle surveys for deer were accomplished. One attempt to do vehicle deer surveys failed because of a sudden winter storm. The only survey completed for this year was a one day helicopter flight, by George Welsh and Art Fuller, on January 25, 1980. Nine bucks, 126 does, and 71 fawns were classified for a total of 206 observations. Five total hours were flown, which included ferry time from Meadview and a refuel stop in St. George. Three hours of actual survey time were spent in the Virgin Mountains from Black Rock Mountain to the Nevada border. All 206 observations were in this area for a 69 deer per hour observation rate.

The number of bucks per 100 does was 7.1 compared to 16.6 observed on the 1978-79 survey. This 7.1:100 observed buck:doe ratio may be the result of the rut ending early or may also indicate a one day helicopter survey to be very inadequate. It is also possible a high rate of illegal harvest has reduced the buck segment of the herd in the Black Rock area since the district has been vacant.

The fawn survival increased from the 1978-79 ratio of 42.8 fawns per 100 does to 56.3. This is significantly higher than the 20 year average of 35.6 for Unit 13.

A comparison of 3 years of age class data from bucks checked in the field, and aged by tooth wear, indicates an increased percentage of yearlings and a reduced number of older age deer in the harvest for 1979 (Table 1).

HARVEST ESTIMATES AND TRENDS:

Twelve hundred and fifty permits were authorized for Unit 13B in 1979. This was the first year management Unit 13 was split into Unit 13A and Unit 13B. Questionnaire data indicate a vast difference between Unit 13A and Unit 13B, and confirm the necessity for their continued separation (Table 2). In Unit 13B 1,012 hunters hunted 5,031 days and harvested 252 bucks for a 24.9% success and averaged 20 days per kill. The combined Unit 13A and Unit 13B hunt success of 23.7 is the same as the previous 10 year average success for Unit 13.

The 1979 season was a 9 day hunt beginning October 26 and ending November 4. This hunt was held 2 weeks earlier than previous years and resulted in the deer being concentrated in the Black Rock area. The early hunt appeared to take place prior to any significant migration to winter range at lower elevations. Arizona Game and Fish personnel checked very few deer south of Mud Mountain.

MORTALITY:

Only one case of a poached deer was reported for 1979. Illegal kill is believed to be significant in this unit because of the concentration of deer on Black Rock and the lack of a wildlife manager being stationed in the area.

POPULATION ESTIMATES, INDICES AND TRENDS:

The population of mule deer in management Unit 13B is estimated to be 2,600 animals. This is a slight increase from 1979 estimates because of increased fawn survival and a significantly higher daily use per acre figure for the Black Rock pellet plots (Table 3). The deer population in the Black Rock area seems to be increasing while the deer herd on Mt. Trumble and the Parashant area are stable or decreasing.

RANGE CONDITIONS AND CLIMATIC FACTORS:

Weather records for 1979 indicate another record high precipitation total for the Black Rock area (Table 4). Range conditions should continue to improve in spite of a dry summer and fall in 1979. The December 1979 through May 1980 precipitation has been above normal and the outlook for 1980 is good.

The Oak Draw and Blake catchments on Black Rock were rebuilt and their aprons and storage capacities were increased.

MANAGEMENT CONCLUSIONS AND RECOMMENDATIONS:

The firearms deer hunt in 1980 will be increased from a 9 day season to a 17 day season from October 31 through November 16. Two hundred less permits are recommended (1,050) because of the longer season and a possible 7.1 bucks:100 does ratio observed on surveys. An increased harvest of yearlings is anticipated.

The archery deer hunt will be open from August 29 through September 18, 1980. This is an increase of 5 days over last season and should allow more opportunity for archery hunting in the unit.

Unit 13B will be assigned a wildlife manager May of 1980. This will facilitate continued close cooperation between the Arizona Game and Fish and the Bureau of Land Management (Strip District) and result in better management of the wildlife resources in Unit 13B.

Submitted by: Arthur F. Fuller
Wildlife Specialist

Table 1. Age structure of harvest 1977-79, percent of harvest.

Age	1977	1978	1979
Yearling	34.7	32.7	44.4%
2½ yrs.	27.5	22.7	18.5%
3½ yrs.	13.6	18.0	22.2%
4½ yrs.	10.2	13.5	7.4%
5½ + yrs.	13.7	13.2	7.4%
(sample size)	(29)	(105)	(27)

Table 2. Questionnaire data for 1979.

Unit	Hunters	Hunter days	Harvest	Success	Days/kill
13A	104	462	13	12.5	35.5
13B	1012	5031	252	24.9	20.0
Combined	1118	5493	265	23.7	20.7

Table 3. Black Rock pellet plots, summer use since 1974 in deer daily use per acre.

Year	1974	1975	1976	1977	1978	1979
DDU/acre	14.5	11.2	9.0	7.3	9.3	23.4

Table 4. Precipitation data inches.

	Oct. 1977 to Sept. 1978	Oct. 1978 to Sept. 1979
#5 Black Rock, Sullivan	13.84	9.79
#6 Black Rock, Larson	15.23	28.71
#9 Cottonwood Canyon	24.18	21.06
Totals	53.25	59.56

SHIVWITS RESOURCE AREA
ALLOTMENT WILDLIFE CHART

* Park Included.

SHIVWITS
RESOURCE AREA

ESTIMATED NUMBERS OF WILDLIFE
AND AUM'S ALLOCATED

MULE DEER

ANIMAL	ACRES HABITAT TYPES	HERD SIZE	REQUIRED AUMS	ALLOTTED AUMS	SEASON OF USE	POTENTIAL ACRES	POTENTIAL AUMS
<u>MULE DEER</u>							
BLACK ROCK	SUMMER 41831	} 2116	2381		Summer		5819 AUMs Required but 529 Not allotted for 1 Month on Annuals TOTAL = 6348 AUMs. Conflicts - % Utilization in Summer Range, Fences Waters.
	INT. 151079		2116		Year long		
	WINTER 147014		1322		Winter		
PARASHAUT	SUMMER 146841	} 2284	3426		Summer		6281 AUMs Required 6852 includes 1 month of Annuals not Allocated.
	Winter 214537		2855		Winter		
Mt. TRUMBULL	SUMMER 6169	} 250	121		Summer		841 AUMs Required.
	Winter 56192		720		Winter		
TOTAL	SUMMER 194841 INT. 151079 WINTER 417743	4650	5928 2116 4897	11111 114841 151079 417743 763663			TOTAL 12941 AUMs REQUIRED IN S.R.A. 763663 Acres Habitat in SRA.