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WATERFOWL HARVEST AND HUNTER USE AT REND LAKE DURING THE 1973 SEASON

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Abstract: During the 1973 waterfowl season at Rend Lake car counts and sample bag checks indicated that waterfowl hunters made 6,013 trips and harvested 3,798 ducks for an average daily success ratio of .63. The increase in hunter numbers from 4,000 in 1972 suggest that maximum utilization has not been reached. Success was better earlier in the season. Mallards comprised 77 percent of the harvest and wood ducks 15 percent.

INTRODUCTION

Rend Lake, still in its infancy, has already emerged as one of the top use and harvest areas in the state. It ranked second in hunter use ahead of 36 other public waterfowl areas. Rend Lake was also second in birds harvested, taking 10 percent of the statewide public harvest (Kennedy et al. 1974a).

The purpose of this report is to delineate hunter use, intensity and distribution throughout the season, along with waterfowl usage, harvest, success and species composition.

The Rend Lake Waterfowl Management Area is a cooperative project between the U. S. Corps of Engineers and the Illinois Department of Conservation. The area offers approximately 16,000 acres of refuge and huntable lands and waters in Jefferson and Franklin counties.

The following division personnel contributed many hours of effort to collection of data: Max Newton, Jack Golden, Floyd Kringer and John Slatcher.

METHODS AND MATERIALS

Hunter use was determined by driving to access points around the lake, beginning at sunrise each day throughout the season, recording cars by geographic locations. Hunter numbers for the day were projected from average number of hunters per car, recorded during bag checks. Because of numerous access roads into the lake it was not possible to check each one in the time allotted. Random checks by a second observer suggested that the hunter projections were 20 percent low because of this factor and were subjectively adjusted upward accordingly.

NATURAL HISTORY SURVEY

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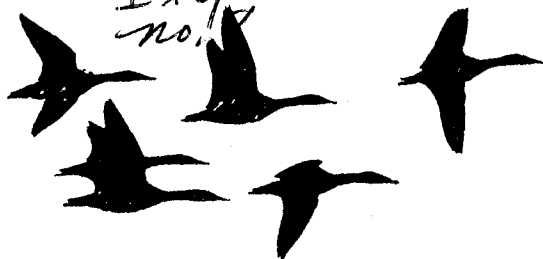
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Upon conclusion of car count routes the observer for the day proceeded to selected access points to obtain complete bag checks of all parties at that site. Some latitude was given the observer in selecting access points so that sufficient samples could be obtained. Sites of high success were not selected often enough to bias the resultant projections.

Daily and seasonal harvest figures were projected from success of hunters via the bag check and car counts.

Duck use figures were obtained by aerial inventories during the fall. High fire danger claimed priority use of the aircraft and no counts were made during November.

RESULTS AND DISCUSSION

For ease in discussion results are in four parts: hunting pressure, hunter success, harvest and species composition.

Hunting Pressure

The total number of hunters using Rend Lake during the 1973 season was 6,013 (Table 1). Typically hunting pressure was heaviest on weekends and holdidays (Fig. 1). Surprisingly, the heaviest single day was not opening day but the third Saturday of the season when 387 were estimated hunting the area. The daily use patterns are very similar to those of Carlyle Lake (Kennedy et al. 1974b).

Comparison of the use figures this season to figures from a less rigorous study in 1972 (Kennedy, Unpublished Report, Illinois Department of Conservation) suggest that Rend Lake is still building a hunting clientel. In 1972 there were approximately 4,000 hunter days compared to over 6,000 this year with a shorter and less productive season.

The west side of the lake and the Big Muddy subimpoundment received slightly more use with 50.4 percent of the total trips than did the Casey Fork subimpoundment and the east side with 43.8 percent of the trips (Table 1) (Rend Lake Waterfowl Management Brochure). The Gun Creek area and the southern portions of the lake accounted for only 5.9 percent of the effort.

Hunter Success

The daily success ratio per hunter trip at Rend Lake was .63. This is somewhat less than the .93 figure recorded for 1972 (Kennedy et al. 1973).

Success seemed slightly better in the earlier parts of the season, with nine days of about 1.00 success prior to November 17th (Fig. 2). After that date there were only three days at that level and many poor days.

The data suggest that the east side may have been slightly more productive with a .76 success ratio while the west side had .58 success. These figures should be viewed with caution since sampling on either side of the lake was at a different time.

Harvest

The estimated duck harvest from car counts and bag checks at Rend Lake for 1973 was 3,798. This is slightly greater than the 3,534 birds estimated in 1972. Since there was a decrease in success ratio this increase in harvest is attributed to the increasing hunting pressure and to some extent increased experience by local hunters.

Waterfowl inventories were sparse but suggest that no more than 10,000 ducks were using the area at any one time. But the progression of species composition in the bag indicates there was a good turnover of birds moving through the lake (Table 2).

Species Composition

As in 1972, the dominant species in the bag was the mallard comprising 77 percent of the total. The wood duck was second with 15 percent, followed by black ducks, baldpate and green winged teal (Table 2).

Wood ducks remained at the lake through the 24th of November and were a fairly substantial species in the bag through November 8th. Baldpate and green-winged teal were important the first 10 days of the season. As expected, mallards did not become heavy in the bag until after the first part of November.

Literature Cited

- Kennedy, D. D., G. J. Senn and G. C. Arthur. 1973. Summary of harvest and hunter use on public waterfowl areas. Illinois Dept. Conservation, Migratory Bird Sect., Periodic Rpt. No. 2. 2pp.
- _____. 1974a. Hunter use and harvest on public waterfowl areas during 1973. Illinois Dept. Conservation, Migratory Bird Sect., Periodic Rpt. No. 6. 6pp.
- _____, P. Moore and G. C. Arthur. 1974b. Waterfowl harvest and hunter use at Carlyle Lake during the 1973 waterfowl season. Illinois Dept. Conservation, Migratory Bird Sect., Periodic Rpt. No. 7. 13pp.

Table 1. Total hunter days by geographic area at Rend Lake during the 1973 waterfowl season.

<u>Area</u> ^a	Percent of Hunter Use	Number of Hunter Days
<u>West Side</u>		
Rt. 183 to County Line	10.4	625
County Line to Waltonville	29.2	1,756
Waltonville to Nason Refuge	10.8	649
<u>East Side</u>		
Casey Fork Subimpoundment	32.9	1,978
Casey Fork Subimpoundment to Rt. 183	10.8	649
Gun Creek and around to 183 West	<u>5.9</u>	<u>356</u>
Total	100.1	6,013

a/Refer to Rend Lake Waterfowl Management Brochure

Table 2. Species composition of the bag by five day periods during the 1973 waterfowl season at Rend Lake.

Species	Percent of bag by five day periods												December Total
	October				November				December				
	20-24	25-29	30-3	4-8	9-13	14-19	20-24	25-29	30-4	Total			
Mallard	.42	.42	.73	.50	.76	.90	.61	.73	.86	.77			
Wood Duck	.33	.35	.14	.29	.03	.01	.07	--	--	.15			
Black Duck	.01	.07	.05	.05	.03	.06	.07	.12	--	.05			
Baldpate	.09	.04	.01	.01	.06	.01	.07	.0	--	.04			
Green Wing Teal	.09	.06	.02	.02	--	.01	--	--	.02	.03			
L. Scaup	.02	--	.02	.02	.06	--	--	.08	.07	.02			
Gadwall	.01	.02	--	--	--	--	.07	--	.02	.01			
Pintail	.01	.02	.02	.02	--	--	.03	--	--	.01			
Blue Wing Teal	--	.02	--	--	.03	.01	--	--	--	.01			
Ringneck	.02	--	--	--	.03	--	--	--	.02	.01			
Shoveller	--	--	--	--	--	--	--	.04	--	T			
Redhead	--	--	--	--	--	--	--	.04	--	T			
Total	1.00	1.00	.99	1.00	1.00	1.00	1.00	1.01	.99	1.00			

Weekends and Holidays

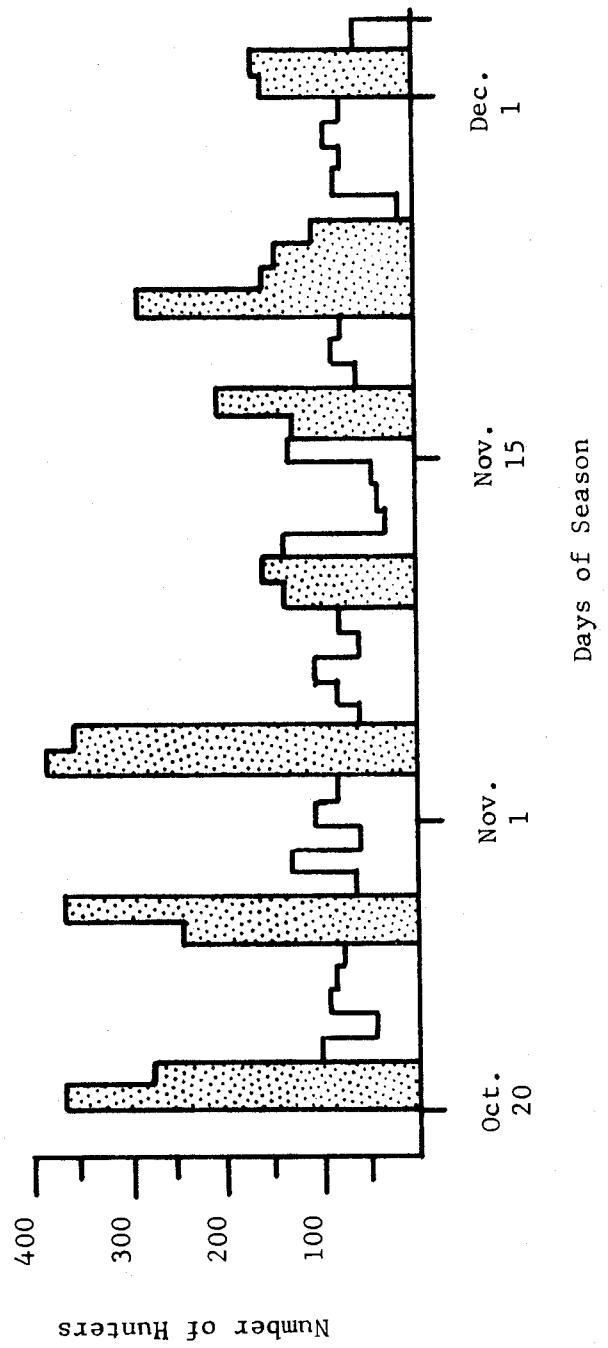


Figure 1. The daily hunting pressure from sample car counts at Rend Lake during the 1974 waterfowl season.

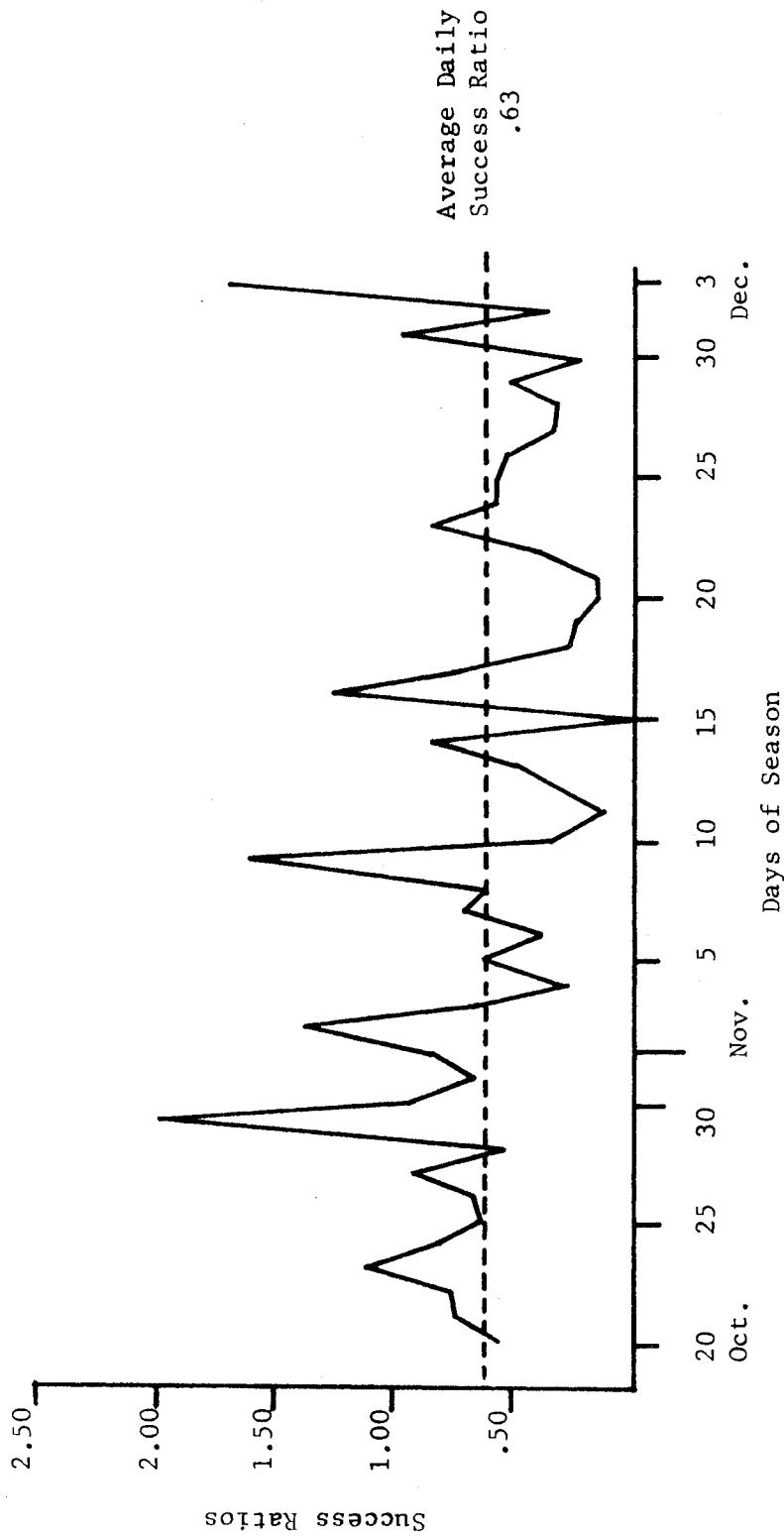


Figure 2. Daily progression of hunter success from sample bag checks at Rend Lake during the 1973 waterfowl season.