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WATERFOWL HARVEST AND HUNTER USE
IN THE REND LAKE QUOTA ZONE
DURING THE 1995 WATERFOWL SEASON

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Abstract: Rend Lake and the surrounding area in Franklin and Jefferson counties comprise the Rend Lake Quota Zone (RLQZ). Hunter use and harvest at Rend Lake are determined from hunter registration sheets. Hunters are required to register before and after each day's hunt. The known goose harvest is then used as a percentage to project total harvest in the two counties. Rend Lake is assigned 15% of the statewide MVP and 5% of the non-MVP Canada goose harvest allocation. The statewide Canada goose harvest allocation was 109,600 in 1994 and increased 57% to 172,600 in 1995. The Rend Lake quota was 11,400 in 1994 and increased 56% to 17,830 in 1995. The Canada goose season at Rend Lake opened 4 November and closed 89 days later on 31 January 1996. The snow goose hunting season opened concurrently with the Canada goose season. However, the season was split into two segments. The first segment was 4 November - 31 January (89 days) and the second segment was 10 February - 27 February (18 days). The daily bag limit was increased from 2 Canada geese in 1994 to 3 in 1995. In 1995, the duck season at Rend Lake opened 4 November and closed 50 days later on 23 December. A total of 6,551 ducks (4,163 mallards), 2,360 Canada geese, 29 snow geese and 5 white-fronted geese were harvested by waterfowl hunters on the public hunting areas. A projected harvest estimate of 7,375 Canada geese or 41% of the assigned quota was harvested in the RLQZ. Waterfowl hunters spent a total of 12,682 days afield (25% less than 1994) on the public hunting areas at Rend Lake. The duck harvest decreased 8% and the goose harvest increased 6% from 1994. Bag limits increased from 3 ducks in 1994 to 5 ducks in 1995 and season length increased from 40 days in 1994 to 50 days in 1995. Shooting hours were extended again during the last 3 days of the Canada goose season from 1:00 p.m. on the state area and 3:00 p.m. on private land to sunset. Duck hunters reported a success rate of 0.77 ducks per trip while goose hunters reported a 0.27 success rate after the close of the duck season. Access areas which recorded the highest duck harvest included: Cottonwood (1,311), Bonnie Camp (1,261), Dareville (822), Casey Fork Dam (772) and Waltonville East (423). Goose hunters were the most successful at Whistling Wings (379), Dareville (313), Casey Fork Dam (309), Cottonwood (240) and Honkers Point (117). Canada goose numbers peaked at 38,000 on 20 December 1995.

INTRODUCTION

Rend Lake is one of the largest and most diverse waterfowl management areas in Illinois, offering excellent hunting opportunities for both ducks and Canada geese. Waterfowl harvest at Rend Lake has been monitored annually since 1975. In 1979, waterfowl hunters using Rend Lake Public Hunting Areas (RLPHA) were required to register and report their daily harvest. The registration system was developed to determine hunter use and harvest at Rend Lake and this technique has proven to be reliable and accurate. In 1995, a portion of the Casey Fork Subimpoundment was designated as a controlled hunting area to resolve conflicts between hunting parties. The controlled hunting area consisted of all the acreage from the subimpoundment dam to the power lines between the Silo and Bonnie Camp access areas. Commercial goose clubs on private lands in Jefferson and Franklin counties are required to obtain a license and submit daily hunter registration and harvest sheets at the end of the hunting season. Prior to the 1982 season, noncommercial goose hunting areas were also required to register hunters and report harvest. Since 1982, the Canada goose harvest on private land in the surrounding area has been derived from the Illinois Waterfowl Hunter Questionnaire Survey, which has been conducted since 1981.

Rend Lake and the surrounding area in Franklin and Jefferson counties were designated as a Mississippi Valley Population (MVP) Canada goose harvest quota zone in 1986. Establishment of the Rend Lake Quota Zone (RLQZ) has allowed for liberalization of harvest regulations while preventing an overharvest in a high concentration area.

The Rend Lake Wildlife Management Area is a cooperative project between the U.S. Army Corps of Engineers (COE) and the Illinois Department of Natural Resources (DNR). The project consists of 39,000 acres of land and water in Jefferson and Franklin counties. Implementation of the waterfowl harvest and hunter use survey was partially funded by Pittman-Robertson Project W-124-D.

Employees of the Division of Wildlife Resources and the COE assisted in the distribution, collection and tabulation of hunter registration sheets in 1995.

METHODS

Waterfowl harvest and hunter use at all Rend Lake public access areas (38) were monitored using the mandatory registration system. A registration box was placed at each hunter access area around the lake as well as the Big Muddy (1,700 acres) and Casey Fork (1,300 acres) Management Areas. Hunters were required to register before hunting and report their daily harvest by number and species following each hunt. Registration sheets and hunter harvest cards were collected daily and the number of hunters and harvest by species were totaled for individual access areas and for each day of the season. Waterfowl hunters hunting in the controlled hunting area were required to register prior to the 4:00 a.m. daily drawing. Hunters were selected by random lottery which allowed each party to select a staked hunting location. The controlled hunting area was divided into two zones which required three different drawings at the same time, but at two different

locations each morning of the waterfowl season. Waterfowl hunters selecting to hunt north of the Bonnie blacktop to the power lines were required to register and draw at the Cottonwood access area. Waterfowl hunters selecting to hunt south of the Bonnie blacktop south to the Casey Fork Subimpoundment Dam were required to register and draw at the Casey Fork Dam access area. Waterfowl hunters selecting to hunt the four pits at the Whistling Wings access area were required to register and draw at Casey Fork Dam. All hunting parties were required to hunt within 10 yards of an assigned, numbered stake. All hunters must register as a party and hunt together at a staked location. Hunters who weren't present at the 4:00 a.m. drawing were not allowed to enter the control area until the 9:00 a.m. drawing. No hunting party was allowed to enter the control area after 9:30 a.m. When a staked location was vacated by a hunting party, any other registered hunting party was able to claim the vacant stake on a first come first serve basis. When a hunting party harvested their legal daily bag of ducks, they must vacate the hunting site.

Canada goose harvest and hunter activity on private land surrounding Rend Lake were estimated using three different methods. Commercial licenses were issued for all areas where payment was received for goose hunting privileges. On these commercial clubs, all hunters were required to register before hunting and report their harvest at the end of each hunt. Registration sheets were submitted by club owners at the end of the season to the Union County Refuge Office for tabulation of harvest and hunter use. Goose harvest on other private lands surrounding Rend Lake in Franklin and Jefferson counties was determined from the Statewide Waterfowl Hunter Questionnaire Survey, conducted after the 1995 waterfowl season (Anderson 1996). Finally, the projected total harvest in the quota zone was estimated using the mean reported harvest on the public hunting areas in past years. Analysis of harvest data at Rend Lake over the past five years revealed that hunters on the public hunting areas have consistently reported 32% of the total goose harvest in the RLQZ. This percentage was then used to project total harvest throughout the season in the quota zone. Goose harvest on the public hunting areas was tabulated daily by DNR staff at the Mt. Vernon Game Farm. Projected harvest in the zone was determined and harvest update information was forwarded to the Rend Lake COE office, where it was provided to the public throughout the season by a recorded telephone message.

Canada goose populations at Rend Lake and other wintering areas in southern Illinois were monitored weekly by aerial inventories starting 16 October and continuing to 27 February. DNR biologists conducted the inventories using the state's Cessna 337.

RESULTS

Canada Geese - Population Status and Migration Chronology

Population Status

The 1995 spring population survey conducted by the Ontario Ministry of Natural Resources (OMNR) revealed an estimated population of 915,764 (\pm 178,641 at 95% CI) Mississippi Valley Population (MVP) Canada geese on the breeding grounds. This represents a 9% increase from

the 1994 spring estimate of 838,148 and is 2% above the 1991-96 MVP Management Plan goal of 900,000 Canada geese (adults and non-breeders).

Aerial surveys yielded estimates of 201,596 active nests ($\pm 34,387$ at 95% CI) in 1995 compared to 208,777 in 1994 (3.4% less). Nesting effort in 1995 was comparable to the long-term average.

Production surveys yielded estimates of 407,322 Canada geese in 1995 compared to 421,830 in 1994 (3.4 less). The projected fall flight for MVP Canada geese in 1995 was 1.32 million (Leafloor 1995). As a result of the MVP above the spring population (900,000) and fall flight goals (1.2 million) in 1995, liberal harvest strategies were adopted which increased season length, bag limit and allocations.

Migration Chronology

Canada geese began arriving at southern Illinois wintering refuges during the week of 17-23 September. The first aerial inventory was conducted on 16 October and revealed that 900 Canada geese (700 in 1994) were present in the RLQZ. Canada goose numbers at Rend Lake gradually increased from 900 in late October to 3,500 by opening day (4 November). The first major migration of geese from Wisconsin occurred between 28-29 November, when the population at Rend Lake increased from 8,500 to 33,000 (Table 1). Another major migration occurred between 11-20 December when the population increased from 33,000 to 38,000. The goose population peaked at 38,000 (80,000 in 1994) on 20 December (Figure 1, Table 2). The Canada goose population in southern Illinois and western Kentucky peaked (332,200) on 8 January (431,900 in 1995). Large numbers of Canada geese remained on wintering refuges through 13 February when warm weather patterns initiated northward migrations to spring staging areas. A small number (50,000) of snow geese wintered in southern Illinois and western Kentucky, however a major migration occurred on 10 February when the population increased from 62,500 to 231,800. Snow geese departed for spring staging areas in large numbers on 25 February. The following survey (27 February) revealed only 24,103 in southern Illinois and western Kentucky.

Goose use-days (GUD) at Rend Lake decreased from 2.5 million in 1994-95 to 1.9 million in 1995-96 (Table 3). In 1995-96, Rend Lake accounted for 1.9 million GUD (10% of the total), Union County Refuge 3.6 million GUD (19% of the total), Horseshoe Lake Refuge 6.4 million GUD (34% of the total), Crab Orchard NWR 5.9 million GUD (31% of the total), and Ballard County, Kentucky 1.1 million GUD (6% of the total). Goose use-days in southern Illinois and western Kentucky decreased 7% from 20.4 million in 1994-95 to 19.0 million in 1995-96.

Ducks - Population Status, Habitat and Migration Chronology

Population Status

The breeding population of all species of ducks increased 10% from 32.5 million in 1994 to 35.9 million in 1995. The mallard breeding population increased 18% from 7.0 million in 1994 to 8.3 million in 1995. The 1995 mallard breeding estimate was 15% above ($P < 0.01$) the long-term average (7.2 million). The breeding population in 1995 increased for 7 of the principal species (mallard, gadwall, wigeon, green-winged teal, blue-winged teal, canvasback and redhead) and decreased for 3 other species (scaup, shoveler and pintail) from 1994.

Habitat

Abundant snowfall and unseasonably wet conditions throughout the north central U.S. and a large portion of southern Canada resulted in excellent habitat conditions. Habitat conditions remained favorable throughout the spring and into early June.

The May (1995) pond index in Prairie Canada increased 3% from 3,769,000 ponds in 1994 to 3,892,500 in 1995 and was 16% above the long-term average (1961-94) of 3,359,000 ponds. The number of May ponds in the north central United States increased 10% from 2,216,000 ponds in 1994 to 2,443,000 in 1995, and was 88% above the long-term average (1974-94) of 1,296,000 ponds. Collectively, the number of May ponds increased 5% from 5,984,000 ponds in 1994 to 6,335,000 in 1995, and was 38% above the long-term average (1974-94) of 4,580,000 ponds.

The July (1995) pond index in Prairie Canada decreased 24% from 2,330,000 ponds in 1994 to 1,773,000 in 1995 and was 9% above the long-term average (1961-94) of 1,630,000 ponds. The number of July ponds in the north central United States increased 46% from 1,080,000 ponds in 1994 to 1,576,000 ponds in 1995, and was 98% above the long-term average (1974-94) of 796,000 ponds. Collectively, the number of July ponds decreased 2% from 3,410,000 in 1994 to 3,350,000 in 1995 and was 36% above the long-term average (1974-94) of 2,467,000.

Abundant wetlands combined with high quality nesting cover as a result of the Conservation Reserve Program provided the impetus for the largest production year and fall flight since the 1970's. The fall flight estimate for ducks from survey areas has ranged from 55 - 88 million since 1970. The mallard fall flight estimate increased 15% from 9.8 million in 1994 to 11.1 million in 1995. The fall flight estimate for total ducks increased from 71 million in 1994 to 80 million in 1995.

Migration Chronology

The timing and distribution of the duck migration through Illinois was earlier than average as a result of the first major storm in the upper Mississippi Flyway. The majority of ducks in the Mississippi Flyway migrated through Illinois during the first week of November. Bellrose first

described this phenomena in 1955 and later named it "the grand passage." Total ducks in the Illinois River Valley peaked at 400,700 on 6 November (44% less than 1994). Total ducks in the Mississippi River Valley peaked on 13 November at 260,845 (8% greater than 1994). The peak number of ducks for the two river systems combined (661,545) was 31% less than 1994 (961,625).

Mallard numbers peaked in the Illinois River Valley at 314,350 on 8 November (47% less than 1994) and in the Mississippi River Valley at 115,800 on 13 November (35% less than 1994). The peak number of mallards on the two systems combined (397,200) was 43% less than 1994.

Six waterfowl surveys were conducted by the Illinois Natural History Survey (INHS) at Rend Lake between 4 October and 15 December. Total duck numbers increased from 50 on 4 October to 14,800 on 3 November. Mallard numbers also peaked at 9,300 on 3 November.

The peak number of mallards was reported on 3 November (9,300) compared to 30 November (20,400) in 1994. Mallard numbers totaled 25,350 during 3 surveys conducted in the fall (November) of 1995 compared to 48,400 for the same survey period in 1994.

Hunter Participation, Waterfowl Harvest and Hunter Success

Hunter Participation

The 1995 RLQZ Canada goose hunting season opened 4 November and closed 89 days later on 31 January. The snow goose hunting season opened concurrently with the Canada goose season. However, the season was split into two segments. The first segment was 4 November - 31 January (89 days) and the second segment was 10 February - 27 February (18 days). The Canada goose harvest allocation for Illinois increased 57% from 109,600 in 1994 to 172,600 in 1995. The RLQZ annually receives 15% of the statewide MVP and 5% of the non-MVP Canada goose harvest allocation. The harvest quota assigned to Rend Lake increased 56% from 11,400 in 1994 to 17,830 in 1995. The Canada goose season length in the RLQZ increased from 51 days in 1994 to 89 days in 1995. The daily bag limit for Canada geese increased from 2 in 1994 to 3 in 1995. Shooting hours were extended again during the last 3 days of the Canada goose hunting season from 1:00 p.m. on the state area and 3:00 p.m. on private land to sunset.

Duck season length was increased from 40 days in 1994 to 50 days in 1995 and bag limits (conventional) increased from 3 to 5 ducks per day. Illinois selected one-half hour before sunrise shooting hours option. The duck season at Rend Lake opened 4 November and closed 23 December.

Waterfowl hunters reported a total of 12,682 days afield in 1995 (25% less than 1994) (Table 4). The Casey Fork Subimpoundment recorded 5,719 days afield or 45% and the Big Muddy Subimpoundment recorded 1,559 days afield or 12%, combined both subimpoundments totaled 7,278 days afield or 57%. The lake and other access areas recorded 5,404 days afield or

43%. The 5-year (1990-94) average was 15,787 days afield, with a minimum of 6,428 in 1975 and a maximum of 18,553 in 1991.

Daily registration forms revealed that waterfowl hunters (4% greater than 1994) spent 8,532 days afield during the duck season. An additional 4,150 days afield were expended during 39 days after the closure of duck season by goose hunters (48% less than 1994). During the duck season, the mean number of hunters per day was 171 (221 in 1994) and an average of 106 (189 in 1994) goose hunters per day were active on Rend Lake after the close of the duck season.

Public access areas receiving the highest hunter use-days included: Cottonwood (1,609), Casey Fork Dam (1,436), Bonnie Camp (950), Whistling Wings (765), Dareville (654) and Silo (546) (Figure 2).

Fourteen licensed commercial goose clubs in the RLQZ reported a total of 2,341 days afield in 1995 (6% less than 1994 2,497). The Statewide Waterfowl Hunter Questionnaire Survey indicated that a total of 4,100 hunters (24% less than the 1994 5,400) spent 27,700 days afield (9% less than 1994 30,400) in the RLQZ (Anderson 1996).

Waterfowl Harvest

A total of 2,360 Canada geese (7% greater than 1994) was harvested on the public hunting areas at Rend Lake in 1995 (Table 5). The goose harvest is often incidental to duck hunting during the duck season. Hunters reported a harvest of 755 geese, or 32% of the total, during the 1995 duck season. The majority of the harvest (68%) occurred in late December and January after the close of the duck season when 4,150 hunters harvested 1,605 Canada geese. Public access areas with the highest goose harvest included: Whistling Wings (379), Dareville (313), Casey Fork Dam (309), Cottonwood (240) and Honkers Point (117) (Figure 3). The goose harvest in the Casey Fork Subimpoundment totaled 1,046 or 44% and the Big Muddy Subimpoundment reported a harvest of 377 or 16%. Combined the subimpoundments harvested 1,423 Canada geese or 60%. The lake and other access areas reported a harvest of 937 Canada geese or 40%.

The Canada goose harvest on the public hunting areas totaled 2,360. The projected RLQZ harvest estimate of 7,375 Canada geese was determined by dividing the reported harvest on the public hunting areas by 32%. This was 10,455 geese less than the assigned quota of 17,830. The harvest estimate derived from the Statewide Hunter Questionnaire Survey after the season revealed a harvest estimate of 5,877 Canada geese (11% less than in 1994 6,573) in the RLQZ (Anderson 1996). The U.S. Fish and Wildlife Service (USFWS) estimated a harvest of 1,718 Canada geese in the RLQZ. Fourteen commercial goose hunting clubs reported a total harvest of 1,351 Canada geese for the season (35% greater than 1994 1,002) and 34 snow geese (Whitton 1996). The final harvest of 7,375 Canada geese represented 41% of the assigned quota of 17,830.

Duck hunters reported a total harvest of 6,551 ducks (8% less than 1994) at Rend Lake during the 1995 season (Table 5). Mallards comprised 64% of the harvest. Wood ducks 10%, green-winged teal 9%, shoveler 4% and pintail 3%. The 1995 mallard harvest of 4,163 was 4%

less than the 1994 harvest (4,362) and 25% greater than the 5-year (1990-94) average of 3,328 (Table 6). Percent harvest for dabbling ducks and diving ducks from 1990-95 are shown in Figures 4 and 5. The duck harvest in the Casey Fork Subimpoundment totaled 4,089 or 62% compared to 1,610 or 25% in the Big Muddy Subimpoundment. Together, the two subimpoundments harvested 5,699 or 87% of the ducks compared to 852 or 13% on the main lake and other access areas.

Access areas with the highest total duck and mallard harvest included: Cottonwood (1,311, 999), Bonnie Camp (1,261, 973), Dareville (822, 523), Casey Fork Dam (772, 560) and Waltonville East (423, 175) (Figure 6).

Hunter Success

Goose hunter success on the public hunting areas is influenced by cropping patterns, weather, migration chronology and the current age structure of the population. After the close of the duck season, goose hunters reported a success rate of 0.25 in 1994 compared to 0.27 in 1995. The success rate in the RLQZ as determined by the Statewide Hunter Questionnaire Survey, was 0.22 goose per hunter in 1994 compared to 0.21 in 1995. Goose hunters on commercial clubs in the RLQZ reported a success rate of 0.59 geese per hunter-trip in 1995 (0.40 in 1994).

Duck hunter success at Rend Lake decreased from (0.80) in 1994 to (0.77) in 1995 (Table 4).

DISCUSSION

Cool wet planting conditions occurred throughout the spring and into the early summer resulting in reduced crop acreages in southern Illinois. Planting conditions improved by July, however extremely dry conditions existed during pollination and tasseling which was preceded by an early frost. The combination of late planting, lack of moisture and an early frost significantly reduced crop yields and moist-soil plant production at Rend Lake. Despite the wet spring, very dry summer and fall conditions resulted in substantially higher pumping costs to flood wetlands, sloughs and impoundments in 1995.

Dramatic weather fluctuations occurred almost weekly throughout the fall and winter of 1995-96. These extremes included temperature deviations from almost record warm temperatures to near record cold temperatures. Subsequently, these fluctuations influenced waterfowl migrations throughout the state. Significant Canada goose migrations occurred between 28-29 November, 4-11 December and 8-9 January. Major snow goose arrivals and departures occurred on 10-11 February and 25 February, respectively. GUD decreased at northern wintering refuges (Rend Lake and Crab Orchard NWR) and increased at southern wintering refuges (Union County and Horseshoe Lake Conservation Areas). Increasingly more numbers of Canada geese are wintering in upstate Illinois as a result of warmer climatic conditions, available food, open water and a large population of resident Canada geese which serve as decoy flock.

Overall, the Canada goose harvest in Illinois (95,661) was below the record statewide allocation of 172,600 Canada geese, but was 59% above the 15-year average (60,000). Snow goose hunting continued after the close of the 89 day Canada goose and 70 day white-fronted goose hunting season. Snow goose hunters were given an opportunity to hunt an additional 18 days in February to fulfill the 107-day maximum allowable hunting framework.

The results of the 1995 MVP Canada goose spring population and production surveys exceeded the MVP management plan goals. Therefore, harvest strategies were considerably liberalized in 1995 which allowed Illinois to increase the daily bag limit, harvest allocations and season length. Maintenance of the population and achievement of MVP goals will provide for liberal seasons in 1996, if production is average or better.

As a result of outstanding forecast for ducks, the number of state duck stamps increased 6%, days afield spent duck hunting increased 9% and the duck harvest increased 62% from 1994 to 1995 (Anderson 1996). Results from the waterfowl hunter survey revealed that the statewide duck harvest in 1995 (406,900) was the highest recorded since 1981. Although the duck harvest (6,551) decreased 8% at Rend Lake in 1995, the harvest remains above the 21-year average of 6,166. Extremely cold temperatures in January resulted in almost 100% ice coverage in the subimpoundments and a large portion of the lake. The effects of the ice significantly reduced hunter activity and harvest during January.

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Table 1. Canada goose numbers at Rend Lake through the fall and winter, 1992-1996.

<u>1992</u>		<u>1993</u>		<u>1994</u>		<u>1995</u>	
Date	No. of Geese	Date	No. of Geese	Date	No. of Geese	Date	No. of Geese
10-19-92	3,500	10-18-93	1,400	10-26-94	700	10-16-95	900
10-26-92	4,000	10-25-93	1,600	11-01-94	2,600	10-30-95	2,000
11-02-92	1,000	11-01-93	1,500	11-07-94	1,500	11-06-95	3,500
11-09-92	4,000	11-08-93	5,000	11-21-94	1,000	11-13-95	6,000
11-16-92	9,500	11-15-93	2,200	11-28-94	7,000	11-20-95	7,500
11-23-92	10,000	11-22-93	12,000	12-12-94	35,000	11-27-95	8,500
11-30-92	14,000	11-29-93	8,000	12-19-94	65,000	12-04-95	33,000
12-07-92	29,000	12-06-93	9,500	12-27-94	70,000	12-11-95	18,000
12-16-92	41,000	12-13-93	11,500	01-03-95	55,000	12-20-95	38,000
12-21-92	27,000	12-21-93	5,600	01-09-95	80,000	12-26-95	32,000
01-06-93	28,000	12-27-93	45,000	01-23-95	28,000	01-03-96	25,000
01-14-93	60,000	01-04-94	25,400	01-30-95	33,000	01-08-96	4,000
01-19-93	108,000	01-10-94	30,200	02-17-95	32,000	01-17-96	3,500
01-25-93	85,000	01-18-94	38,500			01-24-96	15,000
02-01-93	63,000	01-24-94	20,000			01-29-96	24,000
		01-31-94	26,000			02-05-96	23,000
		02-07-94	118,000			02-13-96	18,000
						02-27-96	0

Table 2. Peak numbers of Canada geese at Rend Lake, Illinois 1971-1996.

Year	Number of Geese	Date
1971-72*	6,000	Dec. 22
1972-73	2,000	Dec. 13
1973-74	13,000	Jan. 04
1974-75	32,000	Dec. 18
1975-76	50,000	Jan. 22
1976-77	42,000	Dec. 14
1977-78	100,000	Jan. 23
1978-79	62,000	Jan. 04
1979-80	90,000	Jan. 14
1980-81	88,000	Jan. 27
1981-82	120,000	Jan. 18
1982-83	40,000	Feb. 03
1983-84	44,000	Feb. 07
1984-85	72,000	Jan. 15
1985-86	70,000	Dec. 09
1986-87	65,000	Jan. 13
1987-88	110,000	Jan. 25
1988-89	135,000	Jan. 23
1989-90	170,000	Jan. 16
1990-91	136,000	Jan. 14
1991-92	165,000	Dec. 10
1992-93	108,000	Jan. 19
1993-94	118,000	Feb. 07
1994-95	80,000	Jan. 09
1995-96	38,000	Dec. 20

* First year that Canada geese started using Rend Lake

Table 3. Canada goose use-days and percent total at 5 refuges in southern Illinois and western Kentucky in 1995-96.

Week	Union County Goose Use Days	%	Horseshoe Lk. Goose Use Days	%	Crab Orchard Goose Use Days	%	Rend Lake Goose Use Days	%	Ballard County Goose Use Days	%	Total Goose Use Days
10-16-95	8,400	6	86,800	64	21,000	16	12,600	9	7,000	5	135,800
10-30-95	5,600	6	52,500	56	15,400	17	14,000	15	5,600	6	93,100
11-06-95	21,000	11	52,500	27	84,000	44	24,500	13	9,100	5	191,100
11-13-95	14,000	5	87,500	37	80,500	34	42,000	18	14,000	6	238,000
11-20-95	56,000	24	52,500	22	63,000	27	52,500	22	12,600	5	236,600
11-27-95	63,000	16	122,500	31	133,000	34	59,500	15	17,500	4	395,500
12-04-95	224,000	18	259,000	20	518,000	41	231,000	18	45,500	3	1,277,500
12-11-95	423,000	17	756,000	31	945,000	38	162,000	6	189,000	8	2,475,000
12-20-95	216,000	15	348,000	25	576,000	41	228,000	16	48,000	3	1,416,000
12-26-95	296,000	14	576,000	28	856,000	41	256,000	12	104,000	5	2,088,000
01-03-96	215,000	20	315,000	30	365,000	34	125,000	12	40,000	4	1,060,000
01-08-96	378,000	14	1,575,000	56	630,000	23	36,000	1	171,000	6	2,790,000
01-17-96	427,000	32	413,000	31	420,000	31	24,500	2	63,000	4	1,347,500
01-24-96	195,000	20	310,000	32	330,000	34	75,000	8	55,000	6	965,000
01-29-96	280,000	22	456,000	36	287,000	22	168,000	13	91,000	7	1,282,000
02-05-96	328,000	24	440,000	33	288,000	21	184,000	14	104,000	8	1,344,000
02-13-96	448,000	26	560,000	32	308,000	18	252,000	15	154,000	9	1,722,000
02-27-96	350	7	2,450	47	1,750	33	0	0	700	13	5,250
Total	3,598,350	19	6,464,750	34	5,921,650	31	1,946,600	10	1,130,300	6	19,061,650

Table 4. Annual Rend Lake Public Hunting Area and Quota Zone waterfowl season statistics, 1975-1995. Monitoring of waterfowl harvest and hunter activity began in 1975 on the public hunting area and in 1986, Rend Lake was designated a quota zone for Canada goose hunting. Estimates for the quota zone Canada goose harvest are derived from the Illinois Waterfowl Hunter Questionnaire.

Year	Canada Goose Season Statistics				Duck Season Statistics				Total PHA Use-Days				
	Quota	Season Length	Season Date	Daily Bag	Quota Zone Harvest	PHA Harvest	Canada Goose Harvest	Success Rate		Season Length	Duck Harvest	Season Date	Success Rate
1975		70	Oct. 22 - Dec. 30	2			1,710	0.58	50	6,878	Oct. 22 - Dec. 10	1.07	6,428
1976		70	Oct. 23 - Dec. 31	2			2,017	0.21	50	7,414	Oct. 23 - Dec. 11	1.13	6,555
1977		70	Oct. 22 - Dec. 30	2			1,630	0.19	50	8,748	Nov. 05 - Dec. 19	1.04	8,377
1978		56	Nov. 02 - Dec. 27	2			4,604	0.36	45	9,060	Nov. 02 - Dec. 21	0.78	12,622
1979		62	Oct. 31 - Dec. 31	2			1,917	0.15	50	5,375	Oct. 31 - Dec. 19	0.52	12,978
1980		63	Oct. 30 - Dec. 31	2			3,508	0.22	50	5,493	Oct. 30 - Dec. 18	0.39	16,134
1981		50	Nov. 12 - Dec. 31	2			2,827	0.16	50	6,285	Oct. 29 - Dec. 17	0.46	17,873
1982		40	Nov. 22 - Dec. 31	1			1,109	0.08	50	6,845	Oct. 28 - Dec. 16	0.57	14,682
1983		40	Nov. 22 - Dec. 31	1			1,856	0.14	50	8,270	Oct. 27 - Dec. 15	0.76	13,352
1984		20	Nov. 26 - Dec. 15	1			610	0.06	50	7,724	Nov. 01 - Dec. 20	0.70	11,050
1985		20	Nov. 26 - Dec. 15	1			1,214	0.34	50	4,901	Oct. 31 - Dec. 09	0.55	8,964
1986	7,200	50	Nov. 12 - Dec. 31	1	5,657		2,042	0.32	40	4,859	Oct. 30 - Dec. 08	0.52	14,300
1987	7,900	50	Nov. 16 - Jan. 04	2	4,872		1,676	0.28	40	5,988	Oct. 29 - Dec. 07	0.63	14,867
1988	11,100	50	Nov. 21 - Jan. 09	2	9,236		4,177	0.43	30	3,582	Nov. 11 - Dec. 10	0.49	14,748
1989	15,500	56	Nov. 20 - Jan. 14	2	12,613		3,971	0.45	30	3,868	Nov. 10 - Dec. 09	0.54	14,148
1990	21,300	70	Nov. 10 - Jan. 18	3	8,763		3,068	0.31	30	4,239	Nov. 10 - Dec. 09	0.59	14,580
1991	21,700	84	Nov. 09 - Jan. 31	3	12,138		5,032	0.39	30	7,545	Nov. 09 - Dec. 08	0.96	18,553
1992	11,850	79	Nov. 14 - Jan. 31	2	7,510		2,333	0.21	30	3,894	Nov. 14 - Dec. 13	0.54	15,724
1993	9,200	51	Nov. 27 - Jan. 16	2	8,927		2,784	0.35	30	4,817	Nov. 06 - Dec. 05	0.86	13,251
1994	11,400	51	Dec. 03 - Jan. 22	2	6,573		2,214	0.25	40	7,117	Nov. 03 - Dec. 12	0.80	16,827
1995	17,830	89	Nov. 04 - Jan. 31	3	5,877		2,360	0.27	50	6,551	Nov. 04 - Dec. 23	0.77	12,682
Average	13,498	57		2	8,217		2,507	0.27	43	6,166		0.70	13,272

Table 5. Waterfowl harvest and hunter use on public hunting areas at Rend Lake, Illinois for the 1995 waterfowl season.

Public Access Areas	Hunter Use-days	Total Harvest				
		Mallards	Ducks	Canada Geese	Snow Geese	White-Front
1. Bluegill Hole	29	3	13	12	0	0
2. Bonnie Camp	950	973	1,261	6	0	0
3. Bonnie South	421	31	135	104	0	0
4. Buck Creek	328	80	166	44	0	0
5. Button Bush Bay	44	1	16	0	0	0
6. C & E Lot	187	2	26	26	0	0
7. Casey Fork Dam	1,436	560	772	309	2	0
8. Casey Fork West	78	37	49	55	0	0
9. Cottonwood	1,609	999	1,311	240	7	0
10. County Line	279	3	6	64	1	1
11. Cypress View	108	22	54	0	0	0
12. Dam West	125	17	26	21	0	0
13. Dareville	654	523	822	313	6	0
14. Elk Prairie	131	6	18	8	0	0
15. Gun Creek West	79	8	21	4	0	0
16. Honkers Point	517	4	24	117	0	4
17. Ina Boat Ramp	336	12	64	55	1	0
18. Ina Parking Lot	381	2	7	36	0	0
19. Jackie Branch	373	13	50	88	0	0
20. Ken Gray	362	1	8	44	0	0
21. Lambrusco	343	0	0	68	0	0
22. Mine 21	121	2	4	8	0	0
23. Nason North	170	43	95	5	0	0
24. Nason South	50	8	9	9	0	0
25. Pin Oak	335	167	243	12	0	0
26. Resort Ramp	20	0	0	2	0	0
27. River Road	53	9	14	3	0	0
28. RLCD Boat Ramp	219	13	29	51	1	0
29. RLCD Maintenance	11	0	0	0	0	0
30. Ryder Bottoms	24	2	11	0	0	0
31. Sailboat Harbor	141	14	32	18	0	0
32. Silo	546	274	399	45	2	0
33. Turnip Patch	471	53	128	96	0	0
34. Waltonville Dam	109	31	93	10	1	0
35. Waltonville East	274	175	423	5	0	0
36. Ward Branch	542	23	140	103	3	0
37. Whistling Wings	765	41	53	379	5	0
38. Woodcock Ridge	61	11	29	0	0	0
Totals	12,682	4,163	6,551	2,360	29	5

Table 6. Harvest of ducks by species at Rend Lake, (Southern Zone) Illinois, 1988 through 1995. Data collected from hunter registration reports.

Species	1988	1989	1990	1991	1992	1993	1994	1995
<u>Dabbling Ducks</u>								
American Wigeon	54	95	77	157	98	135	148	62
Black Duck	182	261	184	304	132	126	157	144
Blue-winged Teal	10	14	13	13	13	14	49	34
Gadwall	57	126	88	170	89	125	166	153
Green-winged Teal	168	285	255	481	143	174	340	570
Mallard	2,556	2,519	2,803	4,159	2,566	2,751	4,362	4,163
Northern Shoveler	32	53	35	89	60	55	228	250
Pintail	23	41	35	49	33	59	187	203
Wood Duck	271	310	503	1,596	454	939	852	671
Total	3,353	3,704	3,993	7,018	3,588	4,378	6,489	6,250
<u>Diving Ducks</u>								
Bufflehead	30	27	41	56	17	24	26	42
Canvasback	0	0	1	26	20	0	88	62
Redhead	21	14	12	36	19	35	56	35
Ring-necked Duck	92	52	104	204	166	217	273	96
Ruddy Duck	7	13	7	28	21	23	33	17
Scaup	79	58	81	172	63	140	192	49
Total	229	164	246	527*	306	439	668	301
Total All Species	3,582	3,868	4,239	7,545	3,894	4,817	7,157	6,551

* 4 Mergansers were harvested in 1991.

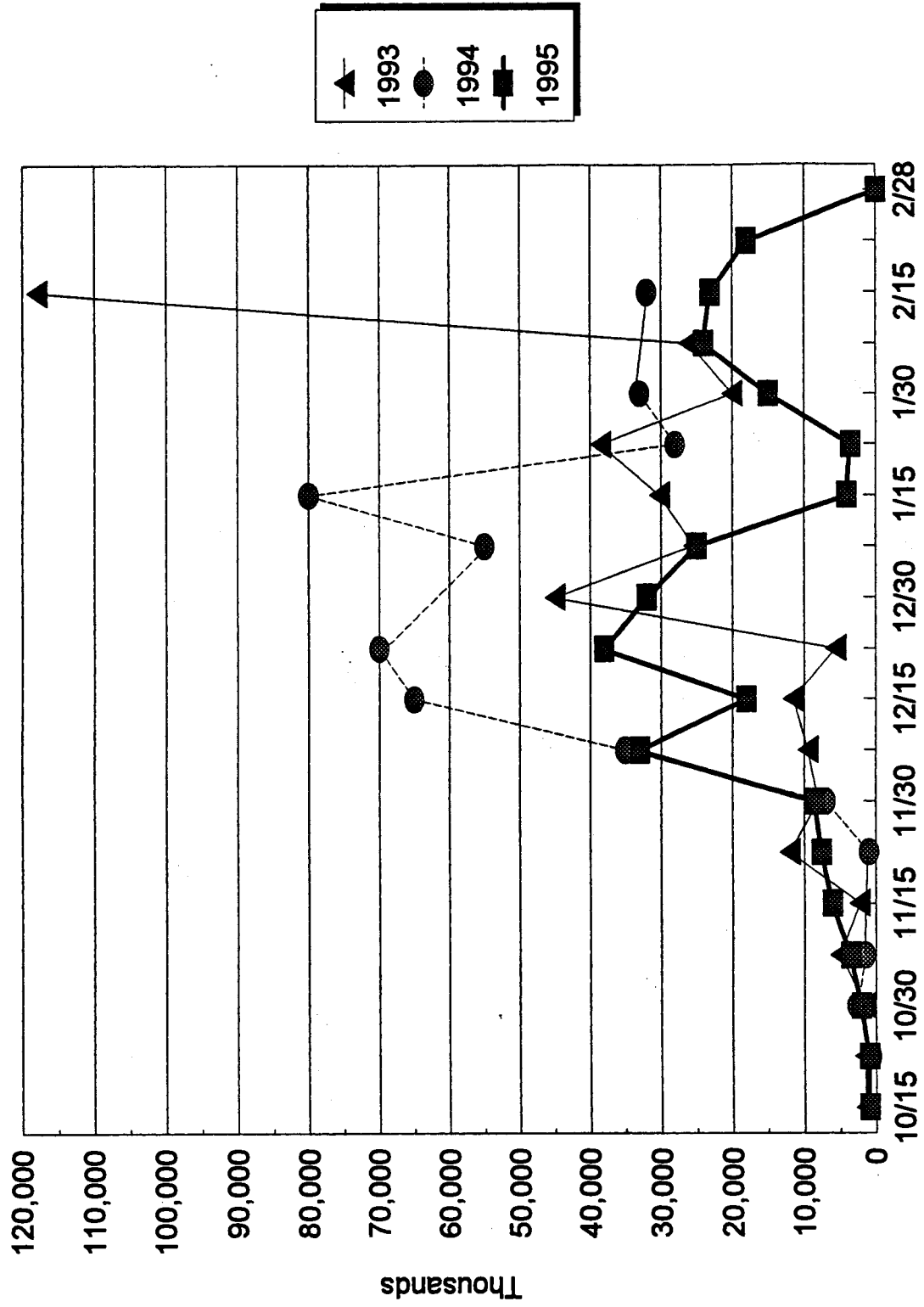


Figure 1. Numbers of Canada geese at Rend Lake, 1993-1995.

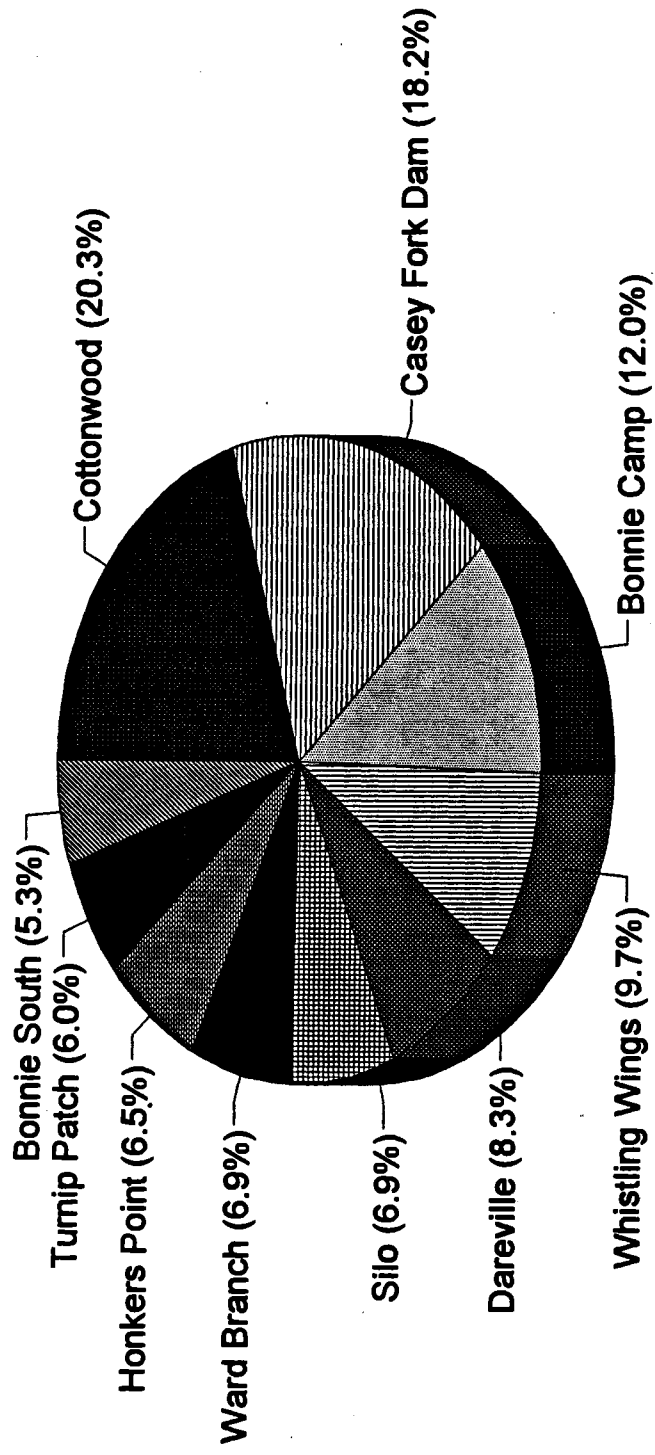


Figure 2. Percentage of hunter use-days at the top 10 access areas at Rend Lake, 1995.

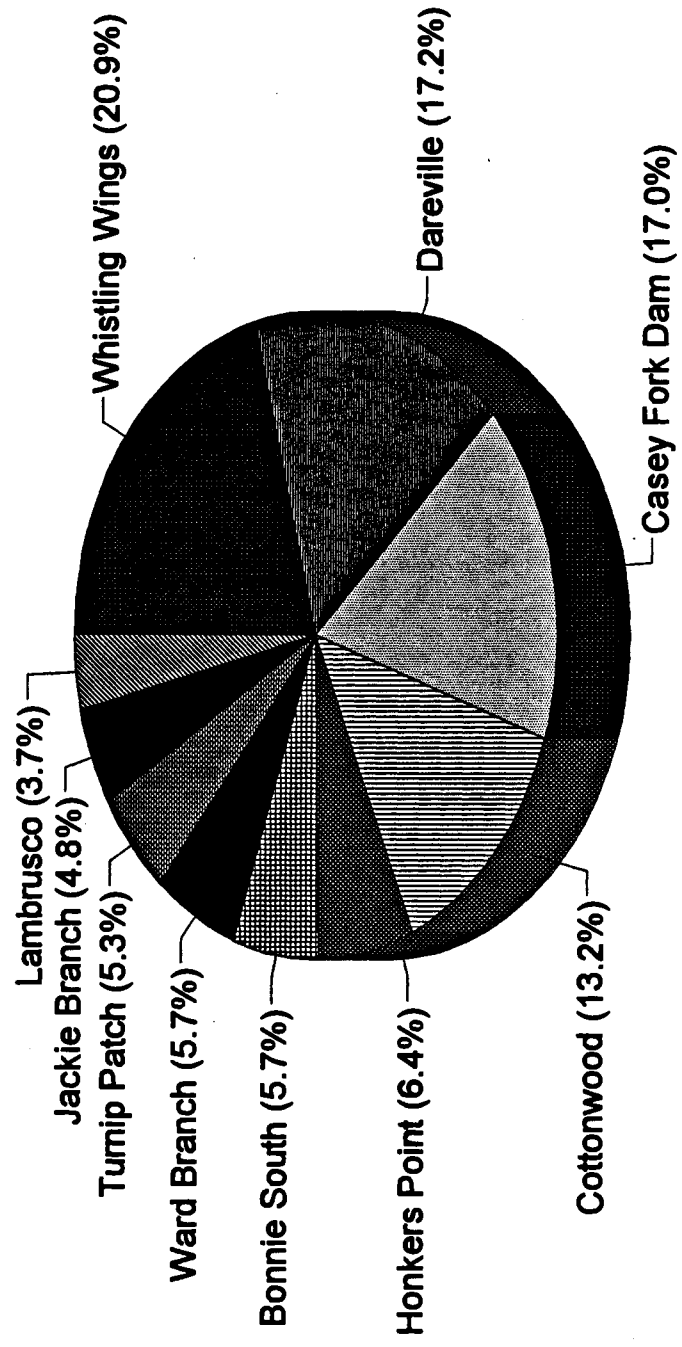


Figure 3. Percentage of the Canada goose harvest at the top 10 access areas at Rend Lake, 1995.

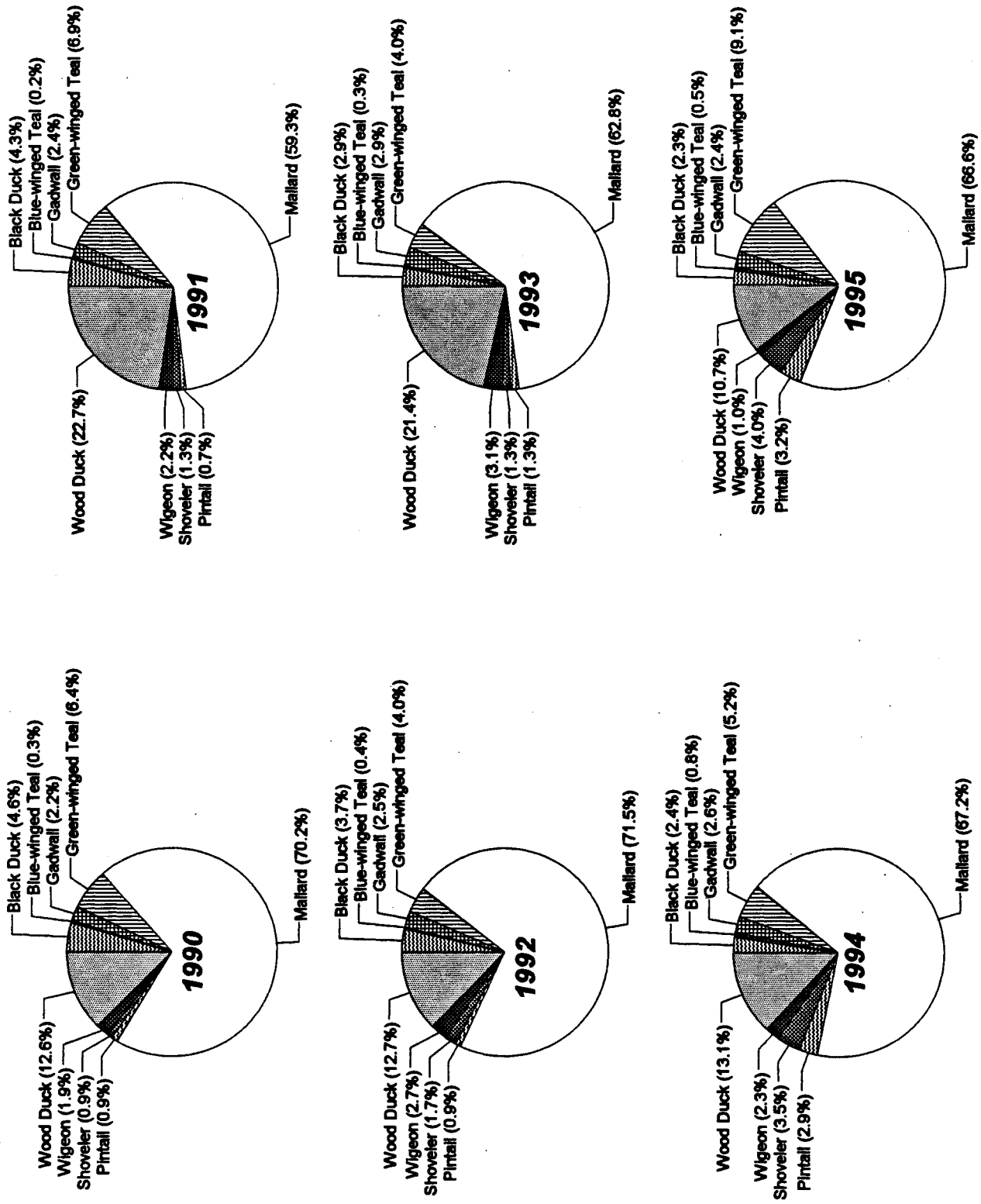


Figure 4. Dabbling duck harvest at Rend Lake 1990-1995.

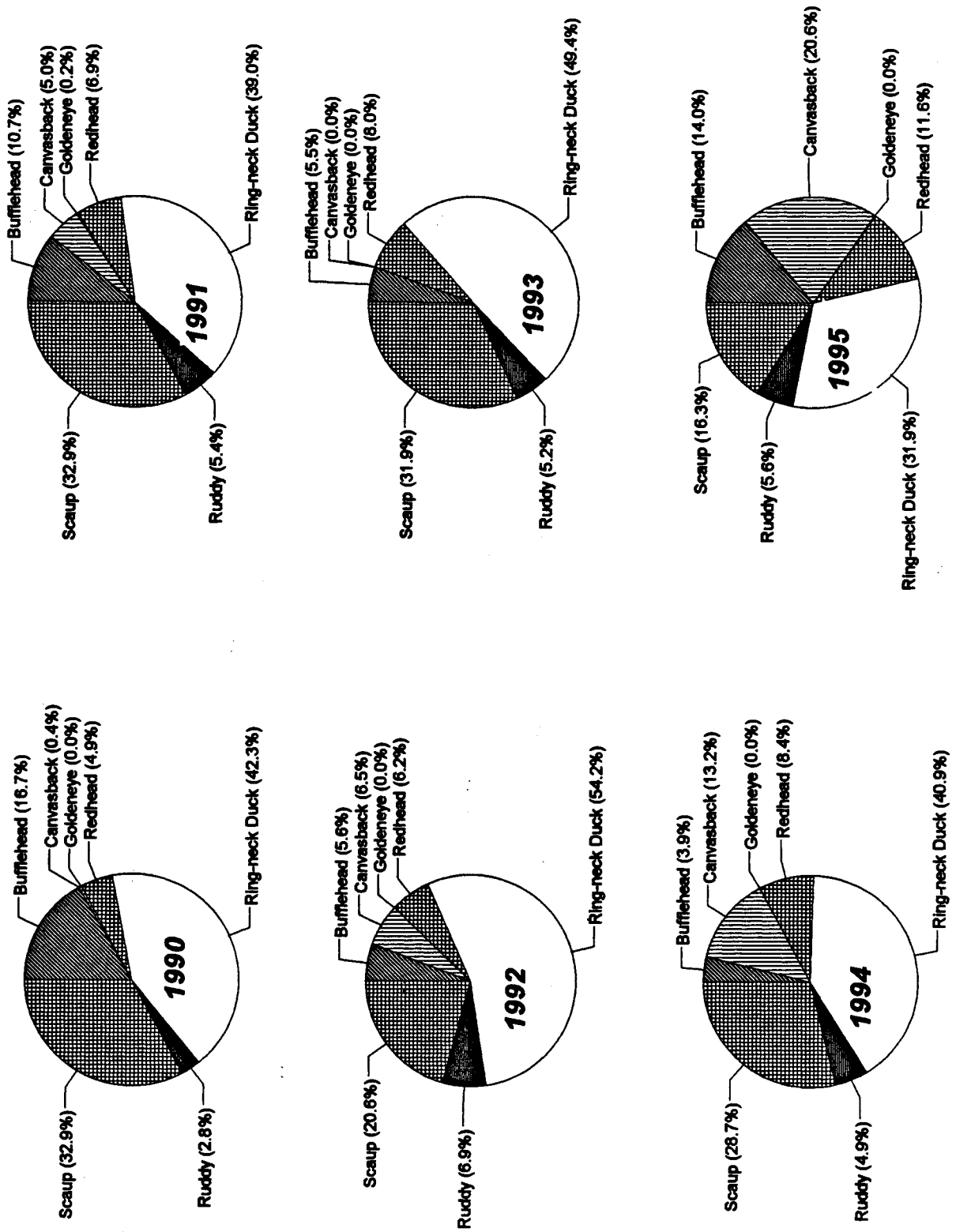


Figure 5. Diving duck harvest at Rend Lake, 1990-1995.

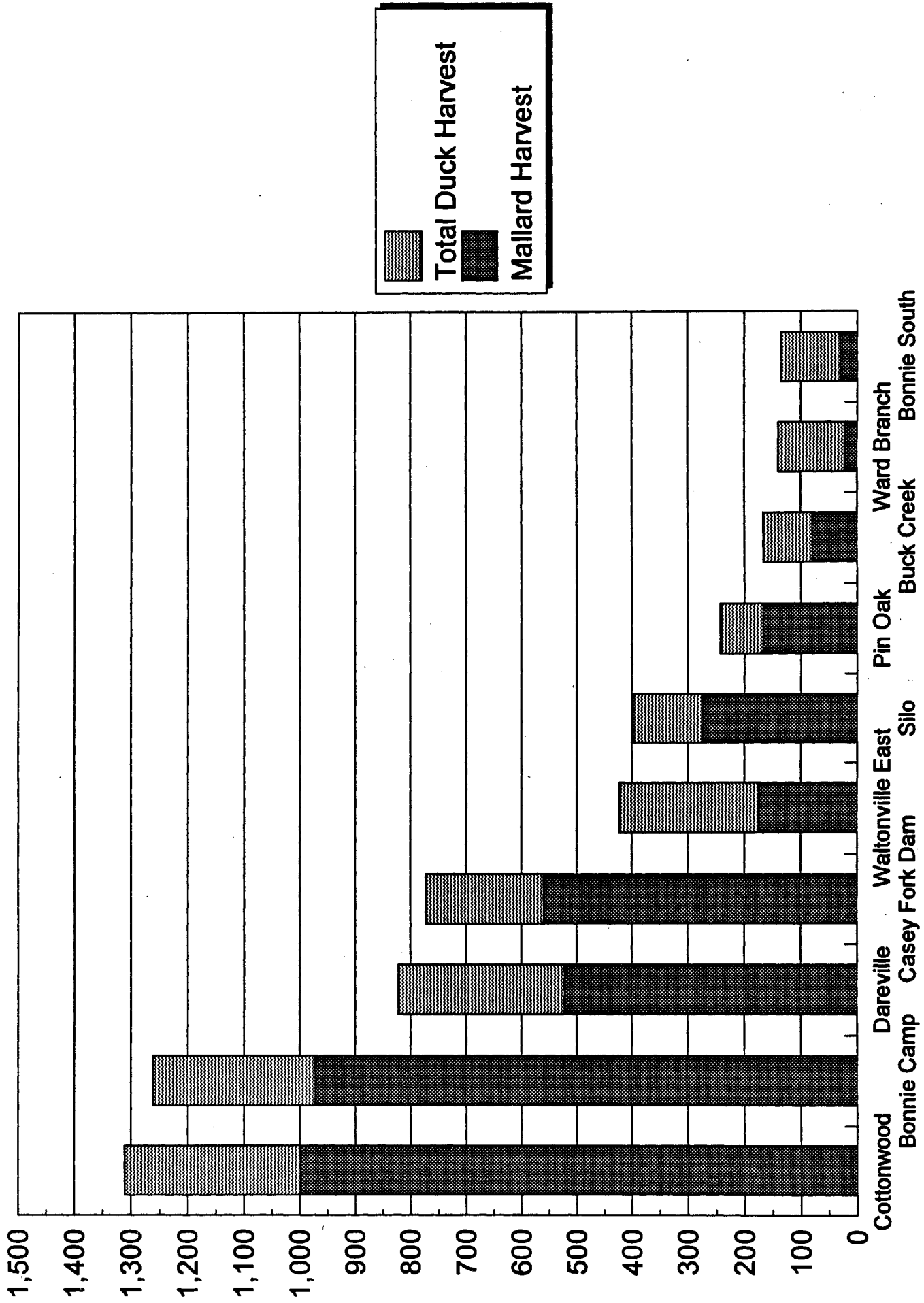


Figure 6. Total ducks and mallard harvest at the top 10 access areas at Rend Lake, 1995.