



Arkansas Game and Fish Commission
Little Rock, Arkansas
2 Natural Resources Drive

Memorandum

To: Doyle Shook **Date:** 2/21/2007

From: Luke Naylor **CC:** Commissioners
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Subject: Post-Season Aerial Waterfowl Survey

AGFC personnel conducted aerial waterfowl surveys February 5 through February 9 in the Northwest Arkansas River Valley (Kiah Gardner), Northeast (Jason Carbaugh), Grand Prairie and East Central (Sonny Thompson), Southeast (Luke Naylor), and Southwest (Griffin Park) regions. Weather conditions were variable during the survey period with high temperatures ranging from the lower 40s to mid 60s and low temperatures around 30 degrees. Sky conditions were generally sunny and visibility was good. This was the first year for this survey to be conducted.

Excellent habitat conditions persisted through the end of duck season and during the survey period. Abundance of flooded habitat was high in all regions, with the exception of the Southeast region where many fields had been drained immediately following the close of duck season and habitat availability was on the decline.

A regional listing of survey totals is found in Table 1. Total waterfowl numbers for the entire state were higher than during the January survey (Figure 1). The statewide total duck count of 423,701 represents a 21% increase from January's count of 348,363. A portion of this increase comes from large increases in numbers of Green-winged Teal,

Northern Shoveler, and Northern Pintail. For instance, Northern Pintail numbers were up about 18,000 birds from January's count, likely indicating the onset of spring migration from wintering grounds to the south for this species.

The mallard count of 211,645 is nearly 30% higher than January's count of 165,270 but this increase was not consistent across survey regions. The Northeast survey region regained the mallard numbers that had been present during the November and December surveys. Strong cold fronts during the last week of January may have contributed to the high number of mallards observed in this region (see below). The Northwest region also showed a modest increase in mallard numbers. In contrast, mallard numbers were down nearly 40,000 birds from the January survey in the Southeast region. About half as many mallards were observed in February as in January in the Southwest region and the mallard count was down a few thousand birds in the East Central region as well.

This month's snow goose count of 227,920 was down slightly from the January count of 270,700 geese. The greatest number of snow geese was observed in the Southeast region and, like the increased numbers of Northern Pintails, likely indicates that snow geese had begun the migration back from their Gulf Coast wintering grounds during the survey period. Numbers of white-fronted geese were similar to last month, totaling 44,250 compared to the January estimate of 48,560.

Observers noticed a substantial increase in numbers of ducks using hunted areas during this survey period. Many ducks appear to have responded to the elimination of hunting pressure by moving off of refuges to flooded fields that had been hunted during past months' surveys. These fields likely maintained relatively high levels of food resources and upon the cessation of hunting became valuable foraging sites for many ducks. In addition, many birds were observed around the edges of flooded fields as opposed to the December and January surveys during which ducks were more commonly seen in the middle of fields.

In summary, this first post-season survey provided an interesting look at late-winter waterfowl abundance in Arkansas and suggests a couple of points to ponder. First, we did not observe a large, statewide increase in mallard or total duck abundance in the two weeks following the close of duck season. The increase in mallard (and total duck) numbers primarily occurred in the Northeast region and the reason for this is likely complex. Mallards in this region often use habitats in the Bootheel of Missouri and Northeast Arkansas interchangeably (e.g., mallards coming back into Big Lake NWR after nocturnal feeding in Bootheel rice fields) and the large increase in mallard numbers in this region could be attributed to "local" movements instead of large-scale migration events. Second, and not surprisingly, waterfowl appear to change their patterns of habitat use in response to the removal of hunting pressure. This phenomenon was indicated by the observation of few ducks in refuges and a shift to increased use of field edges.

Table 1. Numbers of waterfowl observed during the February 2007 Arkansas Aerial Waterfowl Survey.

Species	Northwest	Southwest	Northeast	East Central	Southeast	Statewide
Mallard	16,405	7400	154,940	13,950	18,950	211,645
Black Duck	0	0	35	0	0	35
Gadwall	5971	2665	19,250	1900	14,880	44,936
Wigeon	1200	200	210	2825	50	4485
G.W. Teal	300	1155	19,725	25	11,805	33,010
B.W. Teal	0	0	0	0	100	100
N. Shoveler	1565	0	24,065	1600	23,510	50,740
N. Pintail	705	2020	57,350	1100	16,770	77,945
Wood Duck	225	0	0	550	30	805
ALL DABLERS	26,371	13,440	275,845	21,950	86,095	423,701

Species	Northwest	Southwest	Northeast	East Central	Southeast	Statewide
Ruddy	0	0	200	375	0	575
Redhead	0	0	0	0	0	0
Canvasback	10	10	2140	0	0	2160
Scaup	0	90	25	1100	765	1980
Ring-necked	3400	845	4200	0	2505	10,950
Bufflehead	100	0	30	0	100	150
Mergansers	25	0	20	200	0	245
ALL DIVERS	3535	945	6585	1925	3300	16,290

Species	Northwest	Southwest	Northeast	East Central	Southeast	Statewide
Snow/Ross' Geese	1100	2050	77,400	19,000	128,370	227,920
White-fronted Geese	0	175	7535	19,000	17,540	44,250
Canada Geese	426	45	245	0	51	767
ALL GEESE	1526	2270	85,180	38,000	145,961	272,937

Figure 1. Aerial Waterfowl Survey Statewide Totals for All Ducks, 1985-2006

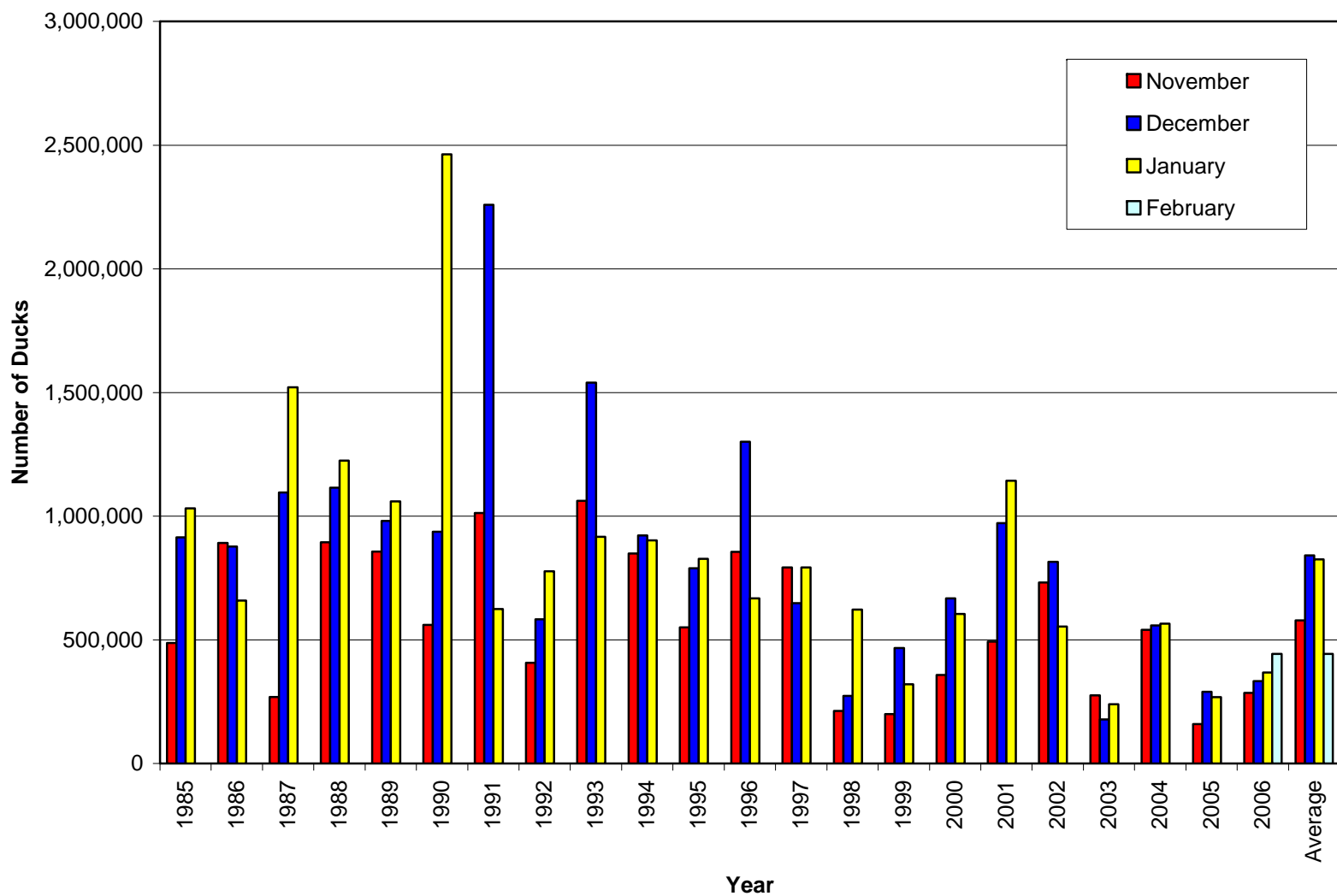


Figure 2. Aerial Waterfowl Survey Statewide Totals for Mallards, 1987-2006

