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## Migratory Bird Hunting Activity and Harvest During the 2007 and 2008 Hunting Seasons

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U.S. Fish & Wildlife Service

# Migratory Bird Hunting Activity and Harvest During the 2007 and 2008 Hunting Seasons

*July 2009*



**Migratory bird hunting activity and harvest during the 2007 and 2008 hunting seasons.**

**Cover photograph:** Beauty of the hunt by Pat Hagan, Division of Public Affairs, USFWS.

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**Abstract:** National surveys of migratory bird hunters were conducted during the 2007 and 2008 hunting seasons. Hunters of the following types of migratory birds were surveyed: waterfowl (family *Anatidae*), doves (mourning [*Zenaida macroura*] and white-winged [*Z. asiatica*]), band-tailed pigeon (*Patagioenas fasciata*), American woodcock (*Scolopax minor*), Wilson's snipe (*Gallinago delicata*), American coot (*Fulica americana*), gallinules (Common moorhen [*Gallinula chloropus*] and purple gallinule [*Porzana carolina*]), and rails (king rail [*Rallus elegans*], clapper rail [*R. longirostris*], Virginia rail [*R. limicola*], and sora [*Coturnicops noveboracensis*]). About 1.2 million waterfowl hunters harvested 14,578,900 ( $\pm 4\%$ ) ducks and 3,666,100 ( $\pm 6\%$ ) geese in 2007, and harvested 13,635,700 ( $\pm 4\%$ ) ducks and 3,792,600 ( $\pm 5\%$ ) geese in 2008. Mallard (*Anas platyrhynchos*), green-winged teal (*A. crecca*), gadwall (*A. strepera*), wood duck (*Aix sponsa*), and American wigeon (*Anas americana*) were the 5 most-harvested duck species in the U.S., and Canada goose (*Branta canadensis*) was the predominant goose species in the goose harvest. About 1.1 million dove hunters harvested 20,550,000 ( $\pm 5\%$ ) mourning doves in 2007 and 994,000 hunters harvested 17,400,000 ( $\pm 5\%$ ) in 2008. Woodcock hunters numbered about 116,900 in 2007 and 130,000 in 2008, and harvested 290,000 ( $\pm 14\%$ ) birds in 2007 and 279,000 ( $\pm 15\%$ ) in 2008. About 29,800 people hunted snipe in 2007 and 27,400 in 2008, and they harvested 119,400 ( $\pm 29\%$ ) and 95,500 ( $\pm 32\%$ ) snipe in 2007 and 2008, respectively. Coot hunters (about 33,700 in 2007 and 31,100 in 2008) harvested 198,300 ( $\pm 29\%$ ) coots in 2007 and 275,900 ( $\pm 43\%$ ) in 2008. Gallinule hunters (about 2,000 in 2007 and 3,700 in 2008) harvested 4,500 ( $\pm 103\%$ ) gallinules in 2007 and 13,200 ( $\pm 98\%$ ) in 2008. About 8,000 rail hunters harvested 24,500 ( $\pm 39\%$ ) rails in 2007 and 11,200 rail hunters harvested 45,000 ( $\pm 43\%$ ) rails in 2008.

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## Introduction

Since the 1952-53 hunting season, the U.S. Fish and Wildlife Service (FWS) has conducted a survey of Federal Duck Stamp purchasers to estimate waterfowl hunter activity and harvest in the United States. That survey was conducted annually through the 2001-02 hunting season, after which it was replaced by a new migratory game bird harvest survey system. In 1992, the FWS and State Fish and Wildlife Agencies (States) established the Migratory Bird Harvest Information Program (HIP), which was fully operational nationwide by 1999 (Elden et al. 2002). This cooperative State-Federal program requires licensed migratory game bird hunters to register annually in each state in which they hunt. Each State is responsible for collecting the name, address, and date of birth from each migratory bird hunter, asking each of them a series of general screening questions about their his/her hunting success the previous year, and sending all of this information to the FWS. The States are also responsible for providing the migratory bird hunters with proof of compliance to carry while they are hunting. The FWS is responsible for using these data to conduct annual national migratory game bird hunter activity and harvest surveys.

This report presents hunter activity and harvest estimates from the HIP surveys for the 2007-08 and 2008-09 hunting seasons. These estimates are preliminary, pending (1) final counts of the number of HIP registrants in each state each season, and (2) complete audits of all survey response data.

## **HIP Survey Design and Methods**

**Sample Frame.** The HIP sample frame consisted of people who identified themselves as potential migratory game bird hunters when they purchased State hunting licenses. The States forwarded the sample frame data to the FWS either weekly or twice a month, starting in July and continuing through the end of their migratory bird hunting seasons. People who hunted migratory birds in more than one state had to comply with the HIP requirement in each state in which they hunted. Thus, the sample frame was specific to each state.

**Stratification and Sample Selection.** States asked each migratory bird hunter a series of short screening questions about the species they hunted and their hunting success the previous year. The list of species or species-groups involved (dependent on seasons in each state) included ducks, sea ducks, geese, brant, doves, band-tailed pigeons, woodcock, coots and/or snipe, rails and/or gallinules, and sandhill cranes (only in Alaska). The FWS used this prior-year information as a predictor of their current year hunting activity and success to assign each hunter to a success/activity stratum for each of the 10 species or species-groups based on his or her answers to the screening questions. From each State list the FWS selected stratified samples for each species or species-group, sampling the small group of active/very successful hunters at a high rate, the larger group of less successful hunters at a lower rate, and the very large group of hunters who rarely if ever hunt the species or species-group at a very low rate. The FWS conducted 5 separate harvest surveys to estimate hunter activity and harvest of: (1) waterfowl (ducks, sea ducks, geese, and brant), (2) doves and band-tailed pigeons, (3) woodcock, (4) snipe, rails, gallinules, and coots, and (5) sandhill cranes in Alaska.

**Survey Methodology.** Contact before or early in the hunting season, and a daily hunting diary format were used in an effort to reduce memory and prestige bias, both of which result in overestimation (Atwood 1956). Hunters selected for the surveys were asked to record the date of each hunt, the state and county where they hunted, and how many birds of various species or species-groups they personally bagged that day. As a check on recording and for hunters who forgot to record their daily hunting information throughout the season, or did not receive the form until after the hunting season began, space was provided on the form to record season totals. Hunter response was voluntary.

Soon after the initial batch of names and addresses was received from a State, stratified samples were selected according to predetermined sampling rates. All surveys were conducted using Dillman's Total Design Method for mail surveys (Dillman 1978, Dillman 1991) to maximize survey response and ensure quality and timely responses. A survey packet including a cover letter and a survey form for recording daily hunting activity was sent to each selected hunter within one to two weeks after his/her name was received. The sample selection and initial mailing process continued with each subsequent batch of names and addresses (roughly twice per month), with the last initial mailing occurring on or shortly after the date the season closed in the state. Postcards were sent at the close of the season reminding sampled hunters to return their completed survey forms and thanking them for their help. About 3 weeks after this mailing, a follow-up packet with an additional form was sent to each hunter who had not yet responded. Finally, 3-4 weeks later, an additional follow-up packet was sent to the remaining non-respondents.

**Analysis.** Standard analyses for stratified samples (Cochran 1977, Steele and Torrie 1980) were used to obtain estimates of harvest and hunter activity for each state and species or species-group combination. The proportion of respondents who hunted (active hunters), their average days hunted and their average seasonal harvest were calculated and the corresponding totals estimated (active hunters, days hunted, birds bagged) at the state level. Variance estimates for these parameters were also calculated and converted to 95% confidence intervals. The number of days afield and the number of birds harvested were also estimated at the management unit and national levels, along with their corresponding 95% confidence intervals. However, the total number of active hunters (and any averages per active hunter) could not be estimated at the management unit or national levels because some people hunted migratory birds in more than one state. To get total numbers at larger geographic scales, we summed the number of active hunters in each state. This may overestimate the total number of active hunters because hunters are required to HIP register in each state in which they hunt migratory birds.

### **Parts Collection Surveys**

The FWS has conducted a cooperative Waterfowl Parts Survey annually to estimate the species, age, and sex composition of the duck harvest since 1961 and the species and age composition of the goose harvest since 1962. Hunters who agreed to participate in this survey were provided with large, postage-paid “wing envelopes” and were asked to send us a wing from each duck, brant, and coot they shot and the tail feathers and primary feather tips from each goose they shot throughout the hunting season. They were also asked to report the state, county, and date of harvest for each specimen they submitted. After the waterfowl hunting seasons ended, FWS and State biologists examined the specimens to determine the species, age, and sex of the birds.

Species composition estimates derived from the Waterfowl Parts Survey were combined with harvest estimates from the HIP waterfowl survey to calculate species-specific duck and goose harvest estimates. Similarly, date information provided by Waterfowl Parts Survey participants was combined with HIP survey results to estimate special September season duck and goose harvests. Estimates of the number of immatures per adult in the harvest (age ratio), and the number of males per female (sex ratio) were calculated for each species and state. Because sampling intensity varied among states, state ratios were weighted by harvest estimates from the HIP waterfowl survey to obtain flyway and U.S. ratios.

The FWS has also conducted a Woodcock Wing Survey annually since 1977, primarily to estimate the age and sex composition of the woodcock harvest. Age and sex ratio estimates obtained from the woodcock wings collected in 1963-2008 were reported in “American woodcock population status, 2009” (Cooper and Parker 2009). This survey was expanded in 1997 to include rail wings to determine the species composition of the rail harvest, and band-tailed pigeon wings to obtain age ratio estimates.

### **Survey Results**

***Waterfowl Hunter Activity and Harvest (Tables 1-7, Figures 1-3).*** HIP waterfowl harvest survey sample sizes and response rates were 73,898 hunters and 56% for the 2007-08 survey,



and 74,683 hunters and a 54% for the 2008-09 survey. Species-specific estimates for ducks and geese (Table 1A-E) are presented by flyway. We were unable to split the estimates for Colorado, Montana, New Mexico, and Wyoming into their Central and Pacific Flyway portions for this report, so we arbitrarily assigned all of Colorado, New Mexico, and Wyoming to the Central Flyway and all of Montana to the Pacific Flyway. However, the Waterfowl Parts Collection Survey enabled us to provide Flyway-specific point estimates of duck and goose harvest for those four states; those point estimates are shown in Table 2.

Sea duck hunter activity and harvest were estimated separately from other ducks for states that had special sea duck seasons or regulations (Table 3). Likewise, brant hunter activity and harvest along the Atlantic and Pacific coasts was estimated separately and reported in Table 4. Sea duck and brant harvest estimates are also shown in the species-specific waterfowl estimates in Table 1, but the estimates of sea ducks and brant days afield and active hunters shown in Tables 3 and 4 are not included in the estimates duck and goose days afield, and active duck and goose hunters that are shown in Table 1.

Estimates for special September duck seasons are given in Table 5, and Table 6 shows estimates of Canada goose harvest during special resident goose seasons compared to regular season harvest. Table 7 summarizes the waterfowl harvest in Canada; those data were provided by the Canadian Wildlife Service, which conducts annual surveys similar to those conducted in the U.S.

Long-term trends duck harvest, and goose harvest since 1961 are shown in Figures 1-2. The curves are locally weighted regression (lowess) lines (Cleveland and Devlin 1988) that fit a pattern to the majority of the estimates and identify points that deviate from that pattern. These figures show one lowess line and point estimates for the Federal Duck Stamp-based survey's estimates from 1961-2001 and a separate lowess line and point estimates for the HIP survey estimates for 1999-2008.

***Waterfowl Age and Sex Ratios (Tables 8-12, Figures 3-6).*** The 2007-08 Waterfowl Parts Survey collected 93,375 duck wings and 20,797 goose tails and primary tips; the 2008-09 sample consisted of 79,587 duck wings and 20,963 goose tails and primary wing tips. State-specific mallard age ratios and flyway-level age ratios for other ducks species are reported in Tables 8 and 9, respectively, followed by state-specific mallard sex ratios (Table 10) and flyway-level sex ratios for other duck species (Table 11). Table 12 gives age ratios for geese. Figures 3-6 show the long-term trends in age ratios of mallards (Figure 3), Northern pintails (Figure 4), American black ducks and wood ducks (Figure 5) and lesser scaup (Figure 6).

***Dove and Band-tailed Pigeon Hunter Activity and Harvest (Tables 13-15).*** The dove and band-tailed pigeon estimates were based on samples of 46,118 hunters in 2007-08 (59% response rate) and 43,075 hunters in 2008-09 (58% response rate). Estimated numbers of active hunters, days afield, harvest and birds harvested per hunter are given in Table 13 for mourning doves, Table 14 for white-winged doves and Table 15 for band-tailed pigeons.

***Woodcock Hunter Activity and Harvest (Table 16).*** Results of the HIP woodcock harvest survey are presented in Table 16. The 2007-08 survey had a sample size of 19,399 hunters and a

63% response rate; the 2008-09 survey sample size and response rate were 20,521 hunters and 61%.

***Snipe, Coot, Gallinule, and Rail Hunter Activity and Harvest (Tables 17-21).*** The sample for the 2007-08 snipe, coot, gallinule, and rail harvest survey was 21,988 hunters (59% response rate) and 22,921 hunters (58% response rate) for the 2008-09 survey. Tables 17-20 give the estimates for Wilson's snipe (Table 17), American coot (Table 18), gallinules (Table 19; all species combined) and rails (Table 20; all species combined).

We believe that the number of rail wings collected each year is too small to provide reliable annual species composition estimates, even at the flyway and national levels. Therefore, we used 5-year running averages to obtain species-specific rail harvest estimates (Table 21). The 2007-08 estimates are based on the species composition of 2,157 rail wings collected from 2003-2007, and the 2008-09 estimates are based on 2,556 rail wings collected from 2004-2008.

***Alaska Sandhill Crane Hunter Activity and Harvest Estimates.*** The estimates presented below were derived from surveys of 589 (2007-08, 72% response rate) and 611 (2008-09, 67% response rate) Alaska migratory bird hunters. For Alaska's 2007 season, we estimated that 1,000 active sandhill crane hunters spent 2,600 days hunting cranes and harvested 800 birds. In 2008, an estimated 800 active hunters spent 3,600 days hunting cranes and harvested 1,700 birds.

Mid-continent sandhill crane hunting activity and harvest in the Central Flyway states are estimated in a separate annual survey. Results of that survey for the 2007 and 2008 seasons were reported in, "Status and harvests of sandhill cranes: Mid-continent and Rocky Mountain populations" (Kruse et al. 2009).

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The HIP and Waterfowl Parts surveys could not be conducted without the close cooperation of participating States. We appreciate the efforts of all State personnel who were involved with the HIP at various levels, as well as all who helped with the Waterfowl Parts Surveys at one of the 4 "wingbees". The names of the people who were primarily responsible for coordinating the HIP program in each state are included in Appendix A. The names of wingbee participants are in Appendix B. We also would like to acknowledge Pat Gonzales and Victor Elam at the Flint Hills NWR for providing support for the Central Flyway wingbee and Debbie Anderson at the Coleman National Fish Hatchery for providing support for the Pacific Flyway wingbee.

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Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Connecticut		Delaware		Florida	
	2007	2008	2007	2008	2007	2008
Mallard	15,686	13,153	16,201	22,625	1,360	316
Domestic Mallard	39	153	175	97	680	105
Black Duck	3,390	3,298	5,849	7,283	0	105
Mallard x Black Duck Hybrid	473	268	643	0	68	316
Mottled Duck	0	0	0	0	11,493	14,134
Gadwall	236	115	2,690	3,884	1,156	1,477
Wigeon	276	192	643	1,165	2,244	1,688
Green-winged Teal	2,444	2,224	9,709	11,361	25,501	15,611
Blue-winged/Cinnamon Teal	39	0	234	0	66,371	59,912
Northern Shoveler	0	0	936	583	5,780	3,164
Northern Pintail	0	115	1,228	2,428	3,876	1,160
Wood Duck	2,562	2,378	5,088	3,496	8,432	8,649
Redhead	0	0	0	97	680	527
Canvasback	39	0	58	0	2,108	0
Greater Scaup	0	230	58	97	680	211
Lesser Scaup	39	77	117	680	12,105	3,270
Ring-necked Duck	709	345	760	874	49,030	60,650
Goldeneyes	709	345	175	97	0	0
Bufflehead	1,774	1,074	2,398	3,787	476	738
Ruddy Duck	0	0	58	583	476	1,477
Long-tailed Duck	846	3,100	720	200	0	0
Eiders	85	0	180	0	0	0
Scoters	169	0	1,800	1,500	0	0
Hooded Merganser	1,104	614	468	486	1,224	1,266
Other Mergansers	1,379	1,419	409	680	0	105
Other Ducks	0	0	0	0	4,760	2,215
Total Duck Harvest	32,000±29%	29,100±20%	50,600±13%	62,000±20%	198,500±22%	177,100±19%
Total Active Duck Hunters <sup>a</sup>	3,000±19%	2,700±15%	3,700±13%	4,400±13%	12,200±20%	12,700±21%
Total Duck Hunter Days Afield <sup>b</sup>	20,100±21%	18,300±18%	28,200±16%	36,500±19%	80,500±22%	67,300±19%
Seasonal Duck Harvest Per Hunter	10.7±35%	10.7±25%	13.5±19%	14.2±26%	16.2±30%	13.9±28%
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Goose Species Composition						
Canada Goose	18,600	22,839	21,996	28,637	0	0
Snow Goose	0	61	7,911	14,318	0	0
Blue Goose	0	0	193	516	0	0
Ross's Goose	0	0	0	129	1,500	0
White-fronted Goose	0	0	0	0	0	0
Brant	200	300	900	1,500	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	18,800±31%	23,200±26%	31,000±27%	45,100±39%	1,500±195%	0
Total Active Goose Hunters <sup>b</sup>	2,100±24%	2,400±16%	4,100±12%	3,900±13%	700±87%	300±138%
Total Goose Hunter Days Afield <sup>b</sup>	14,400±31%	17,700±25%	25,400±18%	29,600±19%	1,700±92%	600±138%
Seasonal Goose Harvest Per Hunter	8.9±40%	9.6±31%	7.6±30%	11.6±41%	2.0±214%	0
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Active Waterfowl Hunters	3,600±18%	3,700±12%	5,200±10%	5,500±11%	12,500±20%	12,700±21%
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Sample Sizes						
Duck Wings	797	688	834	638	2,919	1,679
Goose Tails	594	432	322	353	1	1

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Georgia		Maine		Maryland	
	2007	2008	2007	2008	2007	2008
Mallard	3,211	8,863	12,733	11,265	41,217	61,634
Domestic Mallard	0	277	166	136	1,919	555
Black Duck	0	554	4,983	4,683	10,506	12,586
Mallard x Black Duck Hybrid	0	0	498	475	1,313	925
Mottled Duck	247	0	0	0	0	0
Gadwall	2,964	2,493	0	136	2,020	3,146
Wigeon	247	0	166	271	2,020	2,406
Green-winged Teal	7,656	1,108	6,145	7,872	13,133	16,288
Blue-winged/Cinnamon Teal	5,433	277	277	611	707	2,591
Northern Shoveler	494	0	0	68	404	740
Northern Pintail	0	277	277	136	1,010	1,296
Wood Duck	61,743	89,186	5,425	3,461	10,506	7,589
Redhead	0	554	0	0	404	185
Canvasback	247	0	0	68	1,919	0
Greater Scaup	0	0	0	0	3,132	4,442
Lesser Scaup	3,211	1,662	166	339	10,910	4,442
Ring-necked Duck	9,632	10,802	277	747	3,839	2,776
Goldeneyes	0	0	1,605	2,307	909	740
Bufflehead	2,964	2,216	1,661	2,172	17,477	22,766
Ruddy Duck	1,235	277	111	0	1,414	2,221
Long-tailed Duck	0	0	1,005	4,305	8,279	8,300
Eiders	0	0	13,067	11,143	0	0
Scoters	494	0	1,828	4,052	9,621	8,300
Hooded Merganser	2,223	3,878	2,048	1,764	2,526	2,591
Other Mergansers	0	0	1,661	1,289	1,313	1,296
Other Ducks	0	277	0	0	0	185
Total Duck Harvest	102,000±38%	122,700±63%	54,100±29%	57,300±38%	146,500±15%	168,000±21%
Total Active Duck Hunters <sup>a</sup>	12,000±24%	9,000±26%	5,500±18%	5,700±15%	16,900±11%	16,600±11%
Total Duck Hunter Days Afield <sup>a</sup>	67,000±30%	61,100±57%	30,300±26%	30,600±20%	90,900±14%	88,700±18%
Seasonal Duck Harvest Per Hunter	8.5±45%	13.7±68%	9.9±34%	10.0±41%	8.7±19%	10.1±24%
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Goose Species Composition						
Canada Goose	22,400	32,100	9,100	13,800	161,935	213,678
Snow Goose	0	0	0	0	10,452	15,881
Blue Goose	0	0	0	0	312	241
Ross's Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	0	0	0	0	1,000	1,800
Other Geese	0	0	0	0	0	0
Total Goose Harvest	22,400±49%	32,100±66%	9,100±35%	13,800±50%	173,700±12%	231,600±13%
Total Active Goose Hunters <sup>b</sup>	6,100±34%	7,800±31%	4,600±20%	3,700±19%	26,500±8%	28,200±7%
Total Goose Hunter Days Afield <sup>b</sup>	28,000±45%	26,800±41%	17,100±27%	17,300±28%	131,900±11%	160,200±12%
Seasonal Goose Harvest Per Hunter	3.7±60%	4.1±73%	2.0±40%	3.7±54%	6.6±15%	8.2±15%
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Active Waterfowl Hunters	12,500±24%	9,400±26%	7,500±16%	6,600±14%	33,600±6%	33,300±6%
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Duck Wings	413	443	864	634	1,353	872
Goose Tails	53	67	176	172	1,109	956

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Massachusetts		New Hampshire		New Jersey	
	2007	2008	2007	2008	2007	2008
Mallard	7,171	11,358	5,985	4,569	20,301	14,427
Domestic Mallard	107	0	32	104	114	158
Black Duck	3,863	5,200	1,512	1,194	12,774	7,266
Mallard x Black Duck Hybrid	448	151	257	363	570	579
Mottled Duck	0	0	0	0	0	0
Gadwall	171	0	32	52	342	474
Wigeon	213	202	97	104	399	316
Green-winged Teal	1,409	1,313	1,126	1,090	10,664	7,214
Blue-winged/Cinnamon Teal	43	0	32	0	57	0
Northern Shoveler	0	0	0	0	456	211
Northern Pintail	107	404	129	52	855	1,158
Wood Duck	1,814	3,029	3,668	5,555	6,558	6,003
Redhead	0	0	0	0	0	0
Canvasback	0	0	0	0	0	0
Greater Scaup	107	0	0	0	1,255	632
Lesser Scaup	64	0	0	0	513	579
Ring-necked Duck	107	101	322	363	228	316
Goldeneyes	235	303	64	363	57	53
Bufflehead	1,003	2,322	225	467	10,835	5,581
Ruddy Duck	107	50	0	0	171	421
Long-tailed Duck	128	1,056	0	103	3,222	891
Eiders	3,399	3,921	500	138	0	0
Scoters	2,373	4,223	500	859	578	1,209
Hooded Merganser	320	404	354	208	2,281	2,001
Other Mergansers	512	1,363	64	415	969	1,211
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	23,700±21%	35,400±23%	14,900±28%	16,000±15%	73,200±19%	50,700±19%
Total Active Duck Hunters <sup>a</sup>	2,700±15%	3,700±12%	2,300±15%	2,800±12%	6,300±11%	4,400±9%
Total Duck Hunter Days Afield <sup>a</sup>	17,700±20%	21,800±19%	15,500±19%	16,300±14%	45,100±15%	32,300±15%
Seasonal Duck Harvest Per Hunter	8.8±26%	9.5±26%	6.4±32%	5.8±19%	11.6±22%	11.5±21%
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Goose Species Composition						
Canada Goose	10,969	13,135	6,500	7,000	34,565	30,352
Snow Goose	31	65	0	0	6,935	5,148
Blue Goose	0	0	0	0	0	0
Ross's Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	700	1,100	0	100	7,600	7,800
Other Geese	0	0	0	0	0	0
Total Goose Harvest	11,700±25%	14,300±30%	6,500±29%	7,100±21%	49,100±25%	43,300±25%
Total Active Goose Hunters <sup>b</sup>	2,100±16%	2,700±14%	2,000±16%	2,400±12%	4,800±12%	3,400±11%
Total Goose Hunter Days Afield <sup>b</sup>	13,200±28%	14,100±19%	10,700±20%	12,200±15%	29,000±21%	19,900±18%
Seasonal Goose Harvest Per Hunter	5.7±30%	5.4±33%	3.3±33%	2.9±24%	10.3±27%	12.7±28%
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Active Waterfowl Hunters	3,600±12%	4,600±10%	2,800±14%	3,200±11%	7,200±9%	5,600±7%
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Sample Sizes						
Duck Wings	926	580	434	319	1,263	956
Goose Tails	723	428	185	160	533	655

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	New York		North Carolina		Pennsylvania	
	2007	2008	2007	2008	2007	2008
Mallard	92,049	114,402	32,889	39,742	92,323	94,187
Domestic Mallard	714	581	707	872	918	1,129
Black Duck	22,656	21,238	4,126	3,102	12,065	7,903
Mallard x Black Duck Hybrid	1,249	1,659	354	388	1,443	1,290
Mottled Duck	0	0	0	97	0	0
Gadwall	1,606	1,244	5,540	9,112	4,065	1,129
Wigeon	4,817	2,157	6,837	12,504	1,049	1,774
Green-winged Teal	17,215	14,103	20,511	27,044	11,409	9,999
Blue-winged/Cinnamon Teal	1,160	913	2,122	485	1,049	323
Northern Shoveler	892	498	2,004	3,586	262	161
Northern Pintail	2,587	2,821	4,126	4,459	1,967	806
Wood Duck	25,510	19,993	76,270	56,996	37,375	38,868
Redhead	3,211	3,816	2,476	1,842	262	0
Canvasback	446	0	707	0	131	0
Greater Scaup	4,192	3,567	707	679	1,574	161
Lesser Scaup	4,014	2,821	6,012	7,173	2,885	968
Ring-necked Duck	2,943	996	22,633	16,478	3,803	484
Goldeneyes	7,849	8,711	118	0	2,492	1,290
Bufflehead	13,468	12,693	9,195	13,377	9,704	6,451
Ruddy Duck	357	83	2,358	5,234	1,574	484
Long-tailed Duck	10,646	9,100	354	194	262	0
Eiders	0	0	0	0	0	0
Scoters	4,154	1,400	9,195	7,464	393	161
Hooded Merganser	2,497	4,231	8,134	6,688	4,852	2,903
Other Mergansers	4,371	5,973	825	388	3,541	6,129
Other Ducks	0	0	0	97	0	0
Total Duck Harvest	228,600±14%	233,000±8%	218,200±18%	218,000±18%	195,400±35%	176,600±37%
Total Active Duck Hunters <sup>a</sup>	21,000±6%	21,500±5%	21,700±15%	20,700±14%	29,700±16%	26,300±16%
Total Duck Hunter Days Afield <sup>a</sup>	139,600±10%	127,300±7%	145,400±17%	120,700±16%	161,000±22%	130,000±18%
Seasonal Duck Harvest Per Hunter	10.9±15%	10.8±10%	10.0±23%	10.5±23%	6.6±39%	6.7±40%
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Goose Species Composition						
Canada Goose	138,122	163,338	54,360	46,474	276,047	231,590
Snow Goose	10,078	6,656	870	726	11,772	10,009
Blue Goose	0	106	435	0	240	0
Ross's Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	4,800	7,700	4,200	3,700	0	0
Other Geese	0	0	435	0	240	0
Total Goose Harvest	153,000±17%	177,800±10%	60,300±34%	50,900±28%	288,300±32%	241,600±26%
Total Active Goose Hunters <sup>b</sup>	17,700±6%	19,300±5%	15,700±18%	12,700±19%	37,500±13%	37,800±11%
Total Goose Hunter Days Afield <sup>b</sup>	106,100±11%	114,700±8%	62,300±28%	47,600±26%	244,800±18%	204,500±14%
Seasonal Goose Harvest Per Hunter	8.6±18%	9.2±11%	3.8±39%	4.0±34%	7.7±34%	6.4±29%
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Active Waterfowl Hunters	25,600±5%	26,700±4%	24,100±14%	24,200±14%	45,400±13%	42,200±12%
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Sample Sizes						
Duck Wings	2,454	2,772	1,851	2,249	1,490	1,095
Goose Tails	1,313	1,783	134	130	1,200	1,570

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Rhode Island		South Carolina		Vermont	
	2007	2008	2007	2008	2007	2008
Mallard	2,580	1,641	26,790	25,192	7,640	17,066
Domestic Mallard	0	0	1,683	1,366	26	56
Black Duck	2,293	974	1,964	1,214	1,213	2,224
Mallard x Black Duck Hybrid	107	85	1,262	152	155	167
Mottled Duck	0	0	1,122	759	0	0
Gadwall	107	188	7,013	6,678	26	111
Wigeon	896	461	2,946	3,339	258	167
Green-winged Teal	287	137	21,741	18,970	2,452	4,336
Blue-winged/Cinnamon Teal	36	0	11,361	6,526	52	56
Northern Shoveler	36	0	2,946	1,973	26	56
Northern Pintail	36	0	1,823	2,428	206	500
Wood Duck	179	154	58,910	91,664	3,123	6,560
Redhead	0	34	0	607	0	0
Canvasback	0	0	421	0	0	0
Greater Scaup	394	85	421	304	129	111
Lesser Scaup	143	17	2,946	1,518	232	556
Ring-necked Duck	0	17	10,941	23,675	258	667
Goldeneyes	215	154	0	0	310	1,334
Bufflehead	824	478	1,262	1,821	129	56
Ruddy Duck	72	0	0	152	0	0
Long-tailed Duck	33	103	0	0	26	0
Eiders	1,300	655	0	0	0	0
Scoters	767	241	421	0	0	56
Hooded Merganser	394	427	3,507	5,160	258	612
Other Mergansers	502	547	281	304	181	111
Other Ducks	0	0	140	0	0	0
Total Duck Harvest	11,200±27%	6,400±25%	159,900±20%	193,800±19%	16,700±23%	34,800±19%
Total Active Duck Hunters <sup>a</sup>	900±17%	700±13%	17,400±16%	22,100±16%	1,800±18%	2,900±16%
Total Duck Hunter Days Afield <sup>a</sup>	6,200±20%	5,000±16%	117,400±23%	130,300±20%	10,600±18%	20,500±18%
Seasonal Duck Harvest Per Hunter	11.9±32%	8.6±28%	9.2±25%	8.8±25%	9.2±29%	11.9±25%
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Goose Species Composition						
Canada Goose	5,100	4,066	24,800	23,774	6,298	12,261
Snow Goose	0	34	0	626	484	2,057
Blue Goose	0	0	0	0	18	41
Ross's Goose	0	0	0	0	0	41
White-fronted Goose	0	0	0	0	0	0
Brant	1,200	1,400	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	6,300±32%	5,500±29%	24,800±31%	24,400±40%	6,800±21%	14,400±25%
Total Active Goose Hunters <sup>b</sup>	900±21%	600±15%	8,300±20%	7,900±25%	1,800±18%	2,600±17%
Total Goose Hunter Days Afield <sup>b</sup>	5,300±23%	4,200±21%	27,800±27%	29,800±38%	6,900±21%	13,700±22%
Seasonal Goose Harvest Per Hunter	7.4±38%	9.3±33%	3.0±37%	3.1±48%	3.9±28%	5.6±30%
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Active Waterfowl Hunters	1,200±13%	900±11%	18,900±16%	22,500±16%	2,400±16%	3,600±15%
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Sample Sizes						
Duck Wings	317	345	1,140	1,277	647	626
Goose Tails	137	314	169	78	380	352



Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Virginia		West Virginia		Flyway Total	
	2007	2008	2007	2008	2007	2008
Mallard	47,541	58,586	4,241	4,453	429,917	503,480
Domestic Mallard	303	188	0	164	7,585	5,941
Black Duck	10,924	11,079	589	295	98,705	90,196
Mallard x Black Duck Hybrid	910	1,502	39	65	9,791	8,388
Mottled Duck	0	0	0	0	12,862	14,990
Gadwall	10,823	6,009	157	65	38,950	36,313
Wigeon	2,428	2,817	0	0	25,536	29,563
Green-winged Teal	5,361	10,140	275	98	157,037	148,908
Blue-winged/Cinnamon Teal	405	751	275	65	89,652	72,509
Northern Shoveler	809	376	0	0	15,045	11,415
Northern Pintail	809	3,474	39	33	19,076	21,546
Wood Duck	27,412	19,998	2,788	1,899	337,365	365,477
Redhead	202	0	0	0	7,235	7,663
Canvasback	910	0	0	0	6,988	68
Greater Scaup	506	94	0	33	13,154	10,646
Lesser Scaup	3,237	1,690	0	0	46,594	25,791
Ring-necked Duck	15,274	12,487	0	33	120,756	131,811
Goldeneyes	0	188	0	0	14,739	15,886
Bufflehead	5,867	8,638	79	65	79,340	84,702
Ruddy Duck	708	845	39	33	8,679	11,860
Long-tailed Duck	1,000	1,333	0	0	26,521	28,686
Eiders	0	0	0	0	18,531	15,857
Scoters	8,500	10,667	0	0	40,793	40,132
Hooded Merganser	5,867	4,882	79	98	38,135	38,212
Other Mergansers	405	657	0	0	16,413	21,887
Other Ducks	0	0	0	0	4,900	2,774
Total Duck Harvest	150,200±29%	156,400±19%	8,600±32%	7,400±39%	1,684,300±7%	1,744,700±8%
Total Active Duck Hunters <sup>a</sup>	17,300±13%	15,500±15%	1,000±19%	1,100±21%	175,600 <sup>c</sup>	173,000 <sup>c</sup>
Total Duck Hunter Days Afield <sup>d</sup>	94,100±16%	88,100±17%	6,700±28%	6,400±37%	1,076,300±6%	1,001,300±6%
Seasonal Duck Harvest Per Hunter	8.7±32%	10.1±24%	8.7±37%	6.8±44%		
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Goose Species Composition						
Canada Goose	63,289	72,232	6,660	4,700	860,743	919,976
Snow Goose	1,010	2,184	0	0	49,544	57,765
Blue Goose	0	84	0	0	1,198	987
Ross's Goose	0	0	0	0	1,500	170
White-fronted Goose	0	0	0	0	0	0
Brant	1,700	5,500	0	0	22,300	30,900
Other Geese	0	0	40	0	715	0
Total Goose Harvest	66,000±20%	80,000±18%	6,700±43%	4,700±47%	936,000±11%	1,009,800±8%
Total Active Goose Hunters <sup>b</sup>	15,200±12%	15,200±14%	1,100±21%	900±23%	151,100 <sup>c</sup>	151,900 <sup>c</sup>
Total Goose Hunter Days Afield <sup>b</sup>	70,100±15%	78,800±20%	6,700±37%	5,400±35%	801,600±7%	797,200±6%
Seasonal Goose Harvest Per Hunter	4.2±24%	4.9±23%	6.3±48%	5.0±53%		
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Active Waterfowl Hunters	23,200±11%	20,700±13%	1,300±16%	1,100±20%	230,500 <sup>c</sup>	226,500 <sup>c</sup>
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Sample Sizes						
Duck Wings	1,410	1,547	219	226	19,331	16,946
Goose Tails	706	911	169	147	7,904	8,509

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Alabama		Arkansas		Illinois	
	2007	2008	2007	2008	2007	2008
Mallard	26,998	19,860	578,131	641,431	272,432	231,129
Domestic Mallard	643	245	668	0	733	250
Black Duck	321	245	0	805	2,932	3,494
Mallard x Black Duck Hybrid	0	0	334	805	977	499
Mottled Duck	0	0	0	0	0	0
Gadwall	29,890	27,706	198,941	220,253	37,872	39,187
Wigeon	4,500	1,716	19,360	34,226	11,239	8,736
Green-winged Teal	14,142	6,375	88,122	140,527	30,786	26,957
Blue-winged/Cinnamon Teal	17,034	6,130	12,350	18,522	10,018	8,486
Northern Shoveler	3,214	3,923	68,762	64,828	16,859	12,480
Northern Pintail	1,286	981	23,366	29,394	10,506	7,987
Wood Duck	37,925	48,546	68,094	55,969	19,302	30,701
Redhead	1,286	736	4,339	5,637	3,421	2,746
Canvasback	964	0	1,335	403	8,552	0
Greater Scaup	1,286	0	0	1,611	1,222	1,248
Lesser Scaup	1,928	2,697	10,681	12,885	14,416	6,240
Ring-necked Duck	18,641	15,201	29,374	24,562	18,325	10,733
Goldeneyes	321	0	0	805	4,154	3,245
Bufflehead	1,286	1,716	3,338	805	733	6,240
Ruddy Duck	321	0	1,001	3,221	733	749
Long-tailed Duck	0	0	0	0	244	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	3,214	3,678	4,006	1,611	1,466	2,746
Other Mergansers	0	0	0	0	977	749
Other Ducks	0	245	0	0	0	0
Total Duck Harvest	165,200±67%	140,000±20%	1,112,200±11%	1,258,300±11%	467,900±11%	404,600±16%
Total Active Duck Hunters	8,900±22%	13,500±20%	59,900±9%	58,700±9%	39,000±9%	33,400±10%
Total Duck Hunter Days Afield	83,700±43%	82,900±21%	438,300±10%	520,100±12%	324,500±10%	288,500±12%
Seasonal Duck Harvest Per Hunter	18.5±70%	10.4±28%	18.6±14%	21.4±14%	12.0±14%	12.1±19%
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Goose Species Composition						
Canada Goose	18,754	9,379	16,632	11,497	168,464	150,135
Snow Goose	447	0	27,720	41,848	5,415	4,531
Blue Goose	0	361	14,207	25,752	4,512	2,115
Ross's Goose	0	0	2,426	5,518	301	604
White-fronted Goose	0	361	38,115	52,885	2,707	2,115
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	19,200±69%	10,100±35%	99,100±19%	137,500±29%	181,400±14%	159,500±20%
Total Active Goose Hunters	4,600±36%	5,600±32%	17,800±16%	21,600±15%	33,700±10%	25,600±11%
Total Goose Hunter Days Afield	25,600±51%	18,700±58%	79,000±26%	90,900±22%	254,600±14%	221,100±15%
Seasonal Goose Harvest Per Hunter	4.2±78%	1.8±48%	5.6±25%	6.4±33%	5.4±17%	6.2±23%
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Active Waterfowl Hunters	9,300±22%	13,800±20%	60,400±9%	59,000±9%	45,100±8%	40,100±9%
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Sample Sizes						
Duck Wings	514	571	3,332	3,125	1,915	1,621
Goose Tails	43	28	286	300	603	528

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Indiana		Iowa		Kentucky	
	2007	2008	2007	2008	2007	2008
Mallard	76,139	72,365	72,680	72,312	89,251	79,821
Domestic Mallard	341	982	0	0	0	0
Black Duck	2,731	2,128	0	625	3,514	1,900
Mallard x Black Duck Hybrid	455	819	481	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	9,674	6,876	14,761	14,796	18,272	26,607
Wigeon	1,480	2,783	3,048	6,460	4,217	3,801
Green-winged Teal	9,446	5,239	39,468	31,259	6,325	19,005
Blue-winged/Cinnamon Teal	8,081	3,929	40,271	15,004	4,217	950
Northern Shoveler	3,414	2,620	10,910	13,962	6,325	4,751
Northern Pintail	2,162	2,456	7,220	5,418	4,217	3,801
Wood Duck	15,478	16,536	34,174	38,344	27,056	34,209
Redhead	569	0	1,284	625	703	0
Canvasback	114	0	642	0	351	0
Greater Scaup	114	655	160	0	351	950
Lesser Scaup	569	164	1,604	1,876	3,514	2,851
Ring-necked Duck	2,276	2,947	3,690	3,543	4,568	0
Goldeneyes	683	164	160	625	351	0
Bufflehead	1,252	819	1,284	625	3,162	9,502
Ruddy Duck	228	0	321	0	351	2,851
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	228	164	0	0	351	0
Hooded Merganser	797	491	642	625	703	0
Other Mergansers	455	164	0	0	0	0
Other Ducks	114	0	0	0	0	0
Total Duck Harvest	136,800±19%	122,300±20%	232,800±17%	206,100±15%	177,800±54%	191,000±24%
Total Active Duck Hunters	12,800±11%	12,400±12%	20,400±9%	18,800±9%	7,700±27%	14,900±19%
Total Duck Hunter Days Afield	92,400±15%	95,000±15%	151,400±15%	135,800±12%	80,500±43%	106,100±17%
Seasonal Duck Harvest Per Hunter	10.7±22%	9.9±23%	11.4±20%	10.9±17%	23.2±60%	12.8±31%
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Goose Species Composition						
Canada Goose	69,554	67,700	64,634	62,167	27,907	40,263
Snow Goose	0	0	266	278	0	4,737
Blue Goose	0	0	0	555	821	0
Ross's Goose	0	0	0	0	0	0
White-fronted Goose	146	0	0	0	2,873	0
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	69,700±23%	67,700±20%	64,900±18%	63,000±20%	31,600±64%	45,000±25%
Total Active Goose Hunters	11,100±10%	13,000±11%	13,900±12%	14,100±10%	7,400±33%	11,300±21%
Total Goose Hunter Days Afield	82,300±17%	86,700±15%	98,300±19%	91,300±15%	49,700±37%	80,400±26%
Seasonal Goose Harvest Per Hunter	6.3±25%	5.2±22%	4.7±22%	4.5±23%	4.2±72%	4.0±33%
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Active Waterfowl Hunters	14,400±10%	15,700±10%	23,700±8%	21,700±7%	7,700±27%	16,100±19%
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Sample Sizes						
Duck Wings	1,202	747	1,451	989	506	201
Goose Tails	477	316	244	227	77	19

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Louisiana		Michigan		Minnesota	
	2007	2008	2007	2008	2007	2008
Mallard	142,526	131,912	168,461	158,033	178,969	188,974
Domestic Mallard	0	367	502	367	270	0
Black Duck	0	1,102	10,293	8,983	540	1,120
Mallard x Black Duck Hybrid	0	735	1,004	917	270	560
Mottled Duck	49,435	66,875	0	0	0	0
Gadwall	253,594	338,415	3,766	4,583	24,834	19,877
Wigeon	35,953	49,972	6,025	2,750	12,417	13,718
Green-winged Teal	334,166	389,490	26,863	23,100	49,399	61,592
Blue-winged/Cinnamon Teal	373,971	352,378	3,515	367	60,196	60,752
Northern Shoveler	85,387	91,493	753	733	10,798	10,079
Northern Pintail	46,546	55,851	6,025	5,683	13,227	7,279
Wood Duck	114,920	152,856	48,203	37,217	80,981	78,949
Redhead	9,630	4,777	12,051	12,283	18,896	10,079
Canvasback	18,297	367	2,008	0	8,098	280
Greater Scaup	642	3,674	9,791	7,333	1,890	840
Lesser Scaup	11,235	34,540	6,779	8,983	12,147	10,639
Ring-necked Duck	37,237	53,279	9,289	5,683	68,024	80,629
Goldeneyes	963	0	4,017	5,133	9,448	11,198
Bufflehead	963	6,247	26,110	36,667	9,718	17,358
Ruddy Duck	321	735	3,766	917	1,350	280
Long-tailed Duck	0	0	1,004	550	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	1,506	733	0	0
Hooded Merganser	9,630	6,981	3,264	4,033	1,890	8,679
Other Mergansers	963	367	251	1,650	540	1,120
Other Ducks	6,420	8,084	251	0	0	0
Total Duck Harvest	1,532,800±13%	1,750,500±15%	355,500±20%	326,700±15%	563,900±11%	584,000±14%
Total Active Duck Hunters	62,300±9%	68,800±9%	39,200±10%	38,500±10%	70,200±9%	71,700±9%
Total Duck Hunter Days Afield	539,500±12%	608,300±13%	252,800±14%	237,600±12%	414,700±10%	409,900±11%
Seasonal Duck Harvest Per Hunter	24.6±15%	25.4±17%	9.1±22%	8.5±18%	8.0±14%	8.1±17%
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Goose Species Composition						
Canada Goose	3,128	0	149,200	172,747	203,469	220,972
Snow Goose	27,106	39,286	0	238	0	1,543
Blue Goose	35,446	28,571	0	0	331	0
Ross's Goose	4,170	4,286	0	715	0	0
White-fronted Goose	118,850	77,857	0	0	0	386
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	188,700±48%	150,000±30%	149,200±15%	173,700±22%	203,800±13%	222,900±19%
Total Active Goose Hunters	18,700±15%	20,300±15%	34,000±10%	37,500±10%	56,400±10%	50,500±10%
Total Goose Hunter Days Afield	111,300±28%	94,500±21%	177,400±13%	217,200±15%	329,400±13%	275,800±13%
Seasonal Goose Harvest Per Hunter	10.1±51%	7.4±34%	4.4±19%	4.6±24%	3.6±16%	4.4±21%
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Active Waterfowl Hunters	62,700±9%	69,600±9%	46,000±9%	46,900±9%	77,200±9%	83,400±8%
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Sample Sizes						
Duck Wings	4,775	4,764	1,416	1,782	2,089	2,086
Goose Tails	181	210	593	729	615	578

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Mississippi		Missouri		Ohio	
	2007	2008	2007	2008	2007	2008
Mallard	119,572	103,995	232,435	249,619	101,036	60,201
Domestic Mallard	0	0	175	552	496	306
Black Duck	1,100	0	175	0	8,192	5,501
Mallard x Black Duck Hybrid	275	0	175	368	745	306
Mottled Duck	2,199	910	0	0	0	0
Gadwall	98,131	62,807	55,358	74,554	6,454	2,597
Wigeon	8,521	10,695	9,605	11,781	745	917
Green-winged Teal	57,999	46,877	46,103	55,962	10,923	4,889
Blue-winged/Cinnamon Teal	19,516	6,144	35,450	26,508	8,937	764
Northern Shoveler	20,341	22,528	32,132	13,990	2,979	1,070
Northern Pintail	5,772	9,558	9,779	16,015	4,220	1,986
Wood Duck	44,255	37,320	13,796	14,359	11,419	15,585
Redhead	275	0	2,270	184	1,241	917
Canvasback	0	0	1,222	184	496	0
Greater Scaup	275	683	0	184	496	306
Lesser Scaup	4,123	3,641	2,619	1,289	3,475	917
Ring-necked Duck	6,047	16,384	7,684	8,468	2,731	306
Goldeneyes	0	0	524	1,473	496	458
Bufflehead	825	683	0	368	3,227	3,361
Ruddy Duck	0	0	0	0	0	611
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	496	153
Hooded Merganser	4,673	2,276	1,222	1,473	745	1,528
Other Mergansers	0	0	175	368	248	1,222
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	393,900±23%	324,500±18%	450,900±19%	477,700±35%	169,800±67%	103,900±22%
Total Active Duck Hunters	16,400±14%	13,400±14%	34,600±11%	29,000±12%	20,000±22%	17,500±21%
Total Duck Hunter Days Afield	134,200±18%	109,500±17%	218,800±15%	228,100±20%	157,500±35%	97,800±18%
Seasonal Duck Harvest Per Hunter	24.0±27%	24.2±22%	13.0±22%	16.5±37%	8.5±71%	6.0±31%
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Goose Species Composition						
Canada Goose	13,660	4,770	42,158	81,880	78,286	72,066
Snow Goose	13,660	3,498	4,382	7,369	0	356
Blue Goose	3,643	3,498	2,487	2,866	307	0
Ross's Goose	1,821	636	118	2,866	0	0
White-fronted Goose	10,017	3,498	355	819	307	178
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	42,800±33%	15,900±62%	49,500±19%	95,800±41%	78,900±24%	72,600±22%
Total Active Goose Hunters	7,200±20%	3,300±31%	14,000±16%	14,600±15%	19,900±19%	19,800±19%
Total Goose Hunter Days Afield	31,500±29%	15,400±42%	60,300±26%	86,300±20%	124,100±23%	114,500±20%
Seasonal Goose Harvest Per Hunter	5.9±38%	4.8±69%	3.5±25%	6.6±44%	4.0±31%	3.7±29%
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Active Waterfowl Hunters	16,500±13%	13,400±14%	37,300±10%	32,100±11%	22,100±21%	19,800±20%
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Sample Sizes						
Duck Wings	1,433	1,426	2,582	2,595	684	680
Goose Tails	47	50	418	234	257	409

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Tennessee		Wisconsin		Flyway Total	
	2007	2008	2007	2008	2007	2008
Mallard	284,440	116,798	171,048	155,642	2,514,119	2,282,091
Domestic Mallard	0	242	0	0	3,828	3,311
Black Duck	7,038	2,666	1,856	1,071	38,692	29,641
Mallard x Black Duck Hybrid	0	485	530	357	5,246	5,850
Mottled Duck	0	0	0	0	51,634	67,785
Gadwall	71,550	55,733	19,094	12,316	842,192	906,308
Wigeon	20,527	6,058	11,138	6,604	148,774	160,218
Green-winged Teal	29,910	9,450	48,530	32,128	792,182	852,849
Blue-winged/Cinnamon Teal	2,932	1,939	30,232	16,064	626,720	517,937
Northern Shoveler	18,181	8,239	9,016	1,785	289,071	252,481
Northern Pintail	16,421	8,239	11,668	3,570	162,416	158,218
Wood Duck	38,121	21,082	67,889	81,034	621,615	662,706
Redhead	1,759	485	5,304	4,641	63,027	43,108
Canvasback	5,865	0	8,486	0	56,432	1,234
Greater Scaup	1,759	1,454	3,978	5,712	21,964	24,649
Lesser Scaup	5,865	1,696	5,834	8,924	84,791	97,340
Ring-necked Duck	18,767	12,843	14,586	16,778	241,239	251,356
Goldeneyes	586	727	4,773	5,712	26,478	29,540
Bufflehead	0	485	8,486	16,242	60,383	101,118
Ruddy Duck	1,173	0	1,326	1,606	10,891	10,970
Long-tailed Duck	0	0	1,591	7,140	2,840	7,690
Eiders	0	0	0	0	0	0
Scoters	0	0	1,856	535	4,438	1,585
Hooded Merganser	3,519	1,939	2,917	2,142	38,686	38,201
Other Mergansers	0	0	1,061	2,499	4,670	8,139
Other Ducks	586	242	0	0	7,371	8,571
Total Duck Harvest	529,000±35%	250,800±26%	431,200±10%	382,500±11%	6,719,700±6%	6,522,900±6%
Total Active Duck Hunters	22,100±19%	17,200±20%	60,900±10%	58,500±10%	474,400 <sup>c</sup>	466,400 <sup>c</sup>
Total Duck Hunter Days Afield	206,500±26%	130,200±21%	384,300±11%	360,200±12%	3,479,100±4%	3,410,000±4%
Seasonal Duck Harvest Per Hunter	24.0±40%	14.6±33%	7.1±14%	6.5±15%		
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Goose Species Composition						
Canada Goose	26,632	17,955	114,200	110,164	996,677	1,021,696
Snow Goose	6,146	473	0	135	85,141	104,291
Blue Goose	2,049	473	0	0	63,803	64,191
Ross's Goose	0	0	0	0	8,836	14,625
White-fronted Goose	3,073	0	0	0	176,444	138,097
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	37,900±54%	18,900±29%	114,200±15%	110,300±13%	1,330,900±9%	1,342,900±8%
Total Active Goose Hunters	12,300±24%	8,200±26%	46,700±10%	43,600±11%	297,700 <sup>c</sup>	289,000 <sup>c</sup>
Total Goose Hunter Days Afield	97,300±42%	51,600±37%	286,800±15%	289,400±17%	1,807,700±6%	1,733,800±5%
Seasonal Goose Harvest Per Hunter	3.1±59%	2.3±39%	2.4±18%	2.5±17%		
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Active Waterfowl Hunters	22,900±19%	18,000±19%	83,300±8%	80,600±8%	528,700 <sup>c</sup>	530,300 <sup>c</sup>
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Sample Sizes						
Duck Wings	902	1,035	1,626	2,143	24,427	23,765
Goose Tails	37	40	521	815	4,399	4,483

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Colorado		Kansas		Nebraska	
	2007	2008	2007	2008	2007	2008
Mallard	52,021	56,977	61,203	98,640	91,047	90,391
Domestic Mallard	0	0	0	0	160	151
Black Duck	0	0	0	0	0	0
Mallard x Black Duck Hybrid	0	0	0	0	80	151
Mottled Duck	0	0	0	0	0	0
Gadwall	9,248	11,094	27,687	34,080	10,820	14,915
Wigeon	5,869	9,725	6,638	17,760	9,377	11,450
Green-winged Teal	14,317	11,094	26,716	29,760	31,257	43,388
Blue-winged/Cinnamon Teal	14,850	9,177	26,878	18,960	40,795	29,076
Northern Shoveler	5,780	3,561	4,210	2,400	7,053	4,068
Northern Pintail	1,956	1,781	2,591	6,720	4,328	4,218
Wood Duck	1,156	3,013	1,133	3,600	5,530	5,122
Redhead	3,023	2,191	1,619	6,480	2,404	1,205
Canvasback	267	822	324	480	240	452
Greater Scaup	89	0	0	240	0	0
Lesser Scaup	356	0	648	1,200	561	301
Ring-necked Duck	1,956	685	4,048	7,680	1,362	1,055
Goldeneyes	1,956	685	486	480	1,362	904
Bufflehead	89	1,096	648	240	160	301
Ruddy Duck	0	0	0	0	160	151
Long-tailed Duck	0	0	0	0	0	151
Eiders	0	0	0	0	0	0
Scoters	89	0	0	0	0	0
Hooded Merganser	0	0	810	1,440	641	452
Other Mergansers	178	0	0	0	160	0
Other Ducks	0	0	162	240	0	0
Total Duck Harvest	113,200±13%	111,900±14%	165,800±24%	230,400±22%	207,500±20%	207,900±48%
Total Active Duck Hunters	11,900±13%	13,700±14%	13,000±16%	16,500±15%	14,800±15%	14,500±21%
Total Duck Hunter Days Afield	66,100±12%	72,900±13%	82,100±21%	106,200±18%	121,500±28%	104,000±29%
Seasonal Duck Harvest Per Hunter	9.5±18%	8.1±20%	12.7±29%	13.9±27%	14.1±25%	14.3±52%
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Goose Species Composition						
Canada Goose	66,461	89,188	59,968	87,067	63,794	85,274
Snow Goose	9,962	4,774	6,785	11,120	4,424	3,833
Blue Goose	427	217	2,845	2,129	1,427	2,156
Ross's Goose	1,708	1,953	1,313	4,259	714	958
White-fronted Goose	142	868	13,788	16,325	1,142	479
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	78,700±13%	97,000±14%	84,700±23%	120,900±23%	71,500±20%	92,700±33%
Total Active Goose Hunters	14,600±13%	16,000±13%	14,300±16%	14,700±15%	12,500±13%	14,500±18%
Total Goose Hunter Days Afield	84,200±20%	105,500±15%	79,700±20%	83,500±18%	106,800±22%	115,000±22%
Seasonal Goose Harvest Per Hunter	5.4±18%	6.1±19%	5.9±28%	8.2±28%	5.7±24%	6.4±38%
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Active Waterfowl Hunters	18,500±11%	20,000±12%	17,000±15%	19,800±14%	17,100±13%	18,400±18%
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Sample Sizes						
Duck Wings	1,273	817	1,024	960	2,589	1,380
Goose Tails	553	447	387	512	501	387

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	New Mexico		North Dakota		Oklahoma	
	2007	2008	2007	2008	2007	2008
Mallard	14,258	14,425	171,224	139,219	219,572	97,524
Domestic Mallard	0	0	509	0	0	0
Black Duck	0	0	0	116	0	0
Mallard x Black Duck Hybrid	0	0	127	0	210	0
Mottled Duck	0	0	0	0	0	0
Gadwall	3,550	4,090	57,159	46,058	87,577	54,380
Wigeon	4,237	4,309	12,476	13,690	15,504	17,385
Green-winged Teal	7,272	4,236	18,077	16,938	55,941	28,939
Blue-winged/Cinnamon Teal	4,123	876	26,097	12,414	23,256	12,190
Northern Shoveler	2,119	1,461	19,987	12,066	10,476	7,632
Northern Pintail	1,317	1,096	11,585	7,657	5,447	4,982
Wood Duck	744	548	1,528	1,276	12,571	5,936
Redhead	687	365	21,387	9,629	3,562	2,438
Canvasback	573	37	6,111	4,641	1,467	1,908
Greater Scaup	115	0	0	348	1,676	106
Lesser Scaup	573	110	16,168	10,209	2,514	848
Ring-necked Duck	973	876	4,965	6,497	12,361	12,084
Goldeneyes	115	110	255	0	1,467	742
Bufflehead	172	183	3,437	6,613	2,095	954
Ruddy Duck	0	37	1,528	348	629	106
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	127	0	0	0
Hooded Merganser	115	0	255	580	1,676	2,438
Other Mergansers	115	37	0	0	0	106
Other Ducks	344	1,205	0	0	0	0
Total Duck Harvest	41,400±46%	34,000±55%	373,000±8%	288,300±8%	458,000±32%	250,700±19%
Total Active Duck Hunters	2,800±20%	2,600±22%	32,200±6%	26,200±7%	19,400±16%	14,200±12%
Total Duck Hunter Days Afield	18,700±34%	14,800±32%	157,600±7%	119,800±8%	154,600±24%	98,100±15%
Seasonal Duck Harvest Per Hunter	14.7±50%	13.3±60%	11.6±10%	11.0±11%	23.6±35%	17.7±23%
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Goose Species Composition						
Canada Goose	8,206	4,329	108,922	99,091	48,696	35,027
Snow Goose	1,770	124	13,599	14,829	4,092	2,416
Blue Goose	0	0	14,523	16,492	409	0
Ross's Goose	724	247	528	1,524	1,637	966
White-fronted Goose	0	0	528	1,524	7,366	1,691
Brant	0	0	0	0	0	0
Other Geese	0	0	0	139	0	0
Total Goose Harvest	10,700±80%	4,700±49%	138,100±16%	133,600±15%	62,200±33%	40,100±27%
Total Active Goose Hunters	1,700±27%	1,500±30%	23,100±7%	21,300±7%	10,800±17%	7,300±16%
Total Goose Hunter Days Afield	6,600±33%	5,600±39%	99,300±9%	94,500±10%	49,400±24%	41,600±25%
Seasonal Goose Harvest Per Hunter	6.3±84%	3.2±58%	6.0±18%	6.3±17%	5.7±37%	5.5±31%
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Active Waterfowl Hunters	3,500±19%	3,300±20%	36,900±5%	29,800±6%	20,000±15%	14,900±11%
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Sample Sizes						
Duck Wings	723	931	2,930	2,485	2,186	2,365
Goose Tails	133	76	1,046	964	152	166



Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	South Dakota		Texas		Wyoming	
	2007	2008	2007	2008	2007	2008
Mallard	83,640	76,643	86,931	70,234	32,396	22,255
Domestic Mallard	0	0	239	0	0	0
Black Duck	0	0	0	196	0	0
Mallard x Black Duck Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	8,861	12,163	0	0
Gadwall	25,697	24,876	169,790	147,137	3,343	2,229
Wigeon	6,298	9,971	93,396	68,468	3,708	2,804
Green-winged Teal	14,234	12,992	202,359	170,875	3,039	2,157
Blue-winged/Cinnamon Teal	9,951	12,992	198,048	103,781	1,580	1,330
Northern Shoveler	10,455	4,834	80,465	28,839	669	216
Northern Pintail	5,794	3,626	54,840	41,198	912	467
Wood Duck	4,031	4,230	47,417	30,997	486	180
Redhead	9,447	4,230	42,148	24,523	669	72
Canvasback	630	1,309	5,987	6,082	122	72
Greater Scaup	126	0	958	1,962	122	0
Lesser Scaup	4,157	4,834	15,806	11,182	182	36
Ring-necked Duck	3,401	4,532	47,656	33,351	122	108
Goldeneyes	630	101	1,916	1,373	1,276	1,258
Bufflehead	3,149	2,316	3,592	2,550	912	144
Ruddy Duck	630	1,611	718	196	61	36
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	182	0
Hooded Merganser	630	302	3,353	3,531	0	0
Other Mergansers	0	0	0	392	122	36
Other Ducks	0	101	9,819	1,569	0	0
Total Duck Harvest	182,900±14%	169,500±16%	1,074,300±21%	760,600±18%	49,900±49%	33,400±27%
Total Active Duck Hunters	14,500±11%	14,200±13%	80,200±18%	72,700±20%	4,600±17%	3,600±19%
Total Duck Hunter Days Afield	84,300±14%	80,000±16%	418,500±17%	331,600±19%	23,900±29%	18,800±22%
Seasonal Duck Harvest Per Hunter	12.7±18%	11.9±20%	13.4±28%	10.5±27%	10.9±52%	9.2±33%
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Goose Species Composition						
Canada Goose	87,342	94,513	47,066	43,950	12,957	27,500
Snow Goose	6,277	15,806	173,436	123,146	0	0
Blue Goose	4,304	9,614	30,948	33,941	0	0
Ross's Goose	0	1,141	22,566	31,330	43	0
White-fronted Goose	1,076	326	87,040	40,033	0	0
Brant	0	0	0	0	0	0
Other Geese	0	0	645	0	0	0
Total Goose Harvest	99,000±20%	121,400±20%	361,700±30%	272,400±29%	13,000±21%	27,500±29%
Total Active Goose Hunters	14,000±11%	15,800±11%	63,600±18%	49,400±20%	3,900±17%	3,700±17%
Total Goose Hunter Days Afield	83,000±15%	86,600±15%	197,400±27%	170,700±38%	20,300±28%	20,300±26%
Seasonal Goose Harvest Per Hunter	7.1±22%	7.7±23%	5.7±34%	5.5±36%	3.3±27%	7.5±33%
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Active Waterfowl Hunters	19,500±9%	21,800±10%	94,100±17%	87,700±19%	6,300±12%	5,200±14%
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Sample Sizes						
Duck Wings	1,452	1,683	4,486	3,877	821	929
Goose Tails	552	745	561	626	301	426

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Flyway Total	
	2007	2008
Mallard	812,291	666,308
Domestic Mallard	909	151
Black Duck	0	312
Mallard x Black Duck Hybrid	417	151
Mottled Duck	8,861	12,163
Gadwall	394,872	338,860
Wigeon	157,504	155,561
Green-winged Teal	373,212	320,380
Blue-winged/Cinnamon Teal	345,579	200,796
Northern Shoveler	141,212	65,076
Northern Pintail	88,770	71,745
Wood Duck	74,596	54,902
Redhead	84,947	51,134
Canvasback	15,719	15,802
Greater Scaup	3,085	2,656
Lesser Scaup	40,963	28,721
Ring-necked Duck	76,845	66,868
Goldeneyes	9,462	5,653
Bufflehead	14,254	14,397
Ruddy Duck	3,726	2,485
Long-tailed Duck	0	151
Eiders	0	0
Scoters	399	0
Hooded Merganser	7,479	8,744
Other Mergansers	574	571
Other Ducks	10,324	3,115
Total Duck Harvest	2,666,000±11%	2,086,700±9%
Total Active Duck Hunters	193,400 <sup>c</sup>	178,300 <sup>c</sup>
Total Duck Hunter Days Afield	1,127,400±8%	946,100±8%
Seasonal Duck Harvest Per Hunter		
-----		
Goose Species Composition		
Canada Goose	503,413	565,939
Snow Goose	220,345	176,047
Blue Goose	54,883	64,550
Ross's Goose	29,233	42,379
White-fronted Goose	111,083	61,247
Brant	0	0
Other Geese	645	139
Total Goose Harvest	919,600±13%	910,300±11%
Total Active Goose Hunters	158,600 <sup>c</sup>	144,200 <sup>c</sup>
Total Goose Hunter Days Afield	726,700±9%	723,300±10%
Seasonal Goose Harvest Per Hunter		
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Active Waterfowl Hunters	233,000 <sup>c</sup>	220,900 <sup>c</sup>
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Sample Sizes		
Duck Wings	17,484	15,427
Goose Tails	4,186	4,349

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Arizona		California		Idaho	
	2007	2008	2007	2008	2007	2008
Mallard	10,260	6,396	270,300	255,956	155,506	179,397
Domestic Mallard	42	0	438	803	628	245
Black Duck	0	0	0	0	0	0
Mallard x Black Duck Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	2,638	2,532	122,226	110,212	8,317	8,333
Wigeon	3,225	3,669	219,628	272,418	24,793	23,773
Green-winged Teal	10,050	4,480	402,894	468,551	13,573	13,112
Blue-winged/Cinnamon Teal	2,638	1,980	43,371	39,949	1,491	1,716
Northern Shoveler	6,910	2,175	275,265	209,583	3,766	1,838
Northern Pintail	2,554	1,299	137,851	169,433	4,551	4,656
Wood Duck	293	227	33,733	36,336	3,609	3,921
Redhead	838	877	9,492	7,026	863	2,451
Canvasback	1,256	0	32,564	602	157	0
Greater Scaup	42	97	4,819	1,606	549	368
Lesser Scaup	419	227	18,400	14,454	706	858
Ring-necked Duck	2,931	1,396	35,923	25,495	1,334	1,593
Goldeneyes	251	1,071	6,133	3,413	7,767	11,029
Bufflehead	1,256	909	12,851	12,246	863	2,451
Ruddy Duck	1,005	357	2,921	3,814	0	123
Long-tailed Duck	0	0	146	0	78	0
Eiders	0	0	0	0	0	0
Scoters	0	0	1,460	1,400	0	0
Hooded Merganser	168	195	2,044	1,004	392	858
Other Mergansers	628	32	438	0	157	858
Other Ducks	796	779	0	0	0	123
Total Duck Harvest	48,200±17%	28,700±25%	1,632,900±16%	1,634,300±19%	229,100±46%	257,700±22%
Total Active Duck Hunters	3,800±14%	3,300±17%	53,200±11%	58,100±10%	17,500±21%	20,000±12%
Total Duck Hunter Days Afield	23,100±15%	16,700±33%	552,900±15%	591,300±16%	93,700±36%	121,400±27%
Seasonal Duck Harvest Per Hunter	12.7±22%	8.6±30%	30.7±19%	28.1±22%	13.1±50%	12.9±25%
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Goose Species Composition						
Canada Goose	1,869	2,900	50,484	49,252	40,754	64,107
Snow Goose	288	100	51,455	70,946	0	0
Blue Goose	0	200	583	0	0	0
Ross's Goose	144	0	7,961	13,779	0	131
White-fronted Goose	0	0	59,416	110,523	146	262
Brant	0	0	1,800	1,000	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	2,300±42%	3,200±13%	171,700±26%	245,500±48%	40,900±51%	64,500±25%
Total Active Goose Hunters	1,300±22%	1,100±26%	33,300±12%	37,800±12%	11,200±23%	13,700±13%
Total Goose Hunter Days Afield	7,900±33%	5,800±38%	247,900±15%	258,800±19%	47,900±46%	71,300±23%
Seasonal Goose Harvest Per Hunter	1.8±48%	2.8±50%	5.2±29%	6.5±50%	3.7±56%	4.7±28%
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Active Waterfowl Hunters	3,800±14%	3,700±15%	55,100±10%	60,200±10%	19,800±19%	22,700±11%
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Sample Sizes						
Duck Wings	1,151	884	11,182	8,134	2,920	2,103
Goose Tails	16	32	913	877	560	492

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Montana		Nevada		Oregon	
	2007	2008	2007	2008	2007	2008
Mallard	74,502	85,291	12,936	10,748	271,041	265,271
Domestic Mallard	259	196	0	147	267	499
Black Duck	0	0	0	0	0	0
Mallard x Black Duck Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	8,019	9,215	5,169	4,690	17,456	14,802
Wigeon	9,744	7,745	3,278	2,931	119,663	123,738
Green-winged Teal	6,812	5,490	8,742	4,104	96,743	101,452
Blue-winged/Cinnamon Teal	4,053	1,078	532	195	1,066	499
Northern Shoveler	3,535	980	5,818	3,127	32,114	17,796
Northern Pintail	2,414	2,745	2,983	1,319	57,433	57,877
Wood Duck	1,725	882	236	195	10,527	13,139
Redhead	1,207	784	354	440	400	333
Canvasback	517	98	1,447	0	2,932	166
Greater Scaup	0	98	0	0	22,787	6,320
Lesser Scaup	1,035	686	236	195	15,724	5,322
Ring-necked Duck	1,121	1,373	768	831	10,127	12,640
Goldeneyes	1,983	1,569	354	440	4,397	4,657
Bufflehead	517	294	502	440	15,458	16,964
Ruddy Duck	431	0	325	98	400	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	86	0	30	0	200	100
Hooded Merganser	86	294	30	0	2,932	1,164
Other Mergansers	1,552	980	59	0	2,399	1,497
Other Ducks	0	0	0	0	133	166
Total Duck Harvest	119,600±22%	119,800±21%	43,800±15%	29,900±21%	684,200±20%	644,400±15%
Total Active Duck Hunters	11,300±15%	12,600±15%	2,900±19%	2,600±21%	22,300±8%	23,600±7%
Total Duck Hunter Days Afield	58,000±19%	56,600±16%	18,600±20%	15,100±22%	244,500±15%	237,700±12%
Seasonal Duck Harvest Per Hunter	10.6±26%	9.5±26%	15.1±24%	11.4±29%	30.6±22%	27.3±16%
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Goose Species Composition						
Canada Goose	52,974	38,769	5,108	5,130	83,193	93,419
Snow Goose	3,565	1,385	243	90	9,021	3,231
Blue Goose	166	0	0	0	0	0
Ross's Goose	580	646	0	180	0	404
White-fronted Goose	415	0	49	0	3,787	8,346
Brant	0	0	0	0	43	3
Other Geese	0	0	0	0	0	0
Total Goose Harvest	57,700±20%	40,800±24%	5,400±31%	5,400±36%	96,000±20%	105,400±24%
Total Active Goose Hunters	11,900±14%	10,200±17%	1,600±22%	1,900±22%	11,900±11%	13,800±9%
Total Goose Hunter Days Afield	51,100±17%	39,600±19%	8,500±28%	8,900±29%	89,800±19%	90,500±15%
Seasonal Goose Harvest Per Hunter	4.8±24%	4.0±29%	3.3±38%	2.8±42%	8.1±23%	7.7±25%
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Active Waterfowl Hunters	15,900±13%	15,600±14%	3,300±18%	3,100±20%	23,500±8%	24,800±6%
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Sample Sizes						
Duck Wings	1,387	1,222	1,483	612	5,161	3,882
Goose Tails	696	442	111	60	863	783

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2007 and 2008 hunting seasons.

Duck Species Composition	Utah		Washington		Flyway Total	
	2007	2008	2007	2008	2007	2008
Mallard	72,160	58,177	235,351	219,726	1,102,055	1,080,963
Domestic Mallard	0	294	185	97	1,818	2,281
Black Duck	0	0	0	0	0	0
Mallard x Black Duck Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	24,907	22,761	9,514	9,236	198,246	181,781
Wigeon	20,174	16,678	75,094	68,154	475,598	519,105
Green-winged Teal	39,649	33,160	41,842	35,584	620,307	665,932
Blue-winged/Cinnamon Teal	5,897	7,260	92	0	59,139	52,678
Northern Shoveler	24,907	15,697	15,610	6,611	367,925	257,807
Northern Pintail	19,010	15,108	24,939	24,792	251,736	277,230
Wood Duck	78	589	4,064	5,445	54,265	60,734
Redhead	4,190	3,434	1,478	2,333	18,822	17,677
Canvasback	4,733	0	2,032	0	45,639	867
Greater Scaup	310	0	3,510	2,722	32,017	11,211
Lesser Scaup	4,966	2,649	9,606	3,014	51,092	27,406
Ring-necked Duck	1,862	1,373	10,068	5,445	64,135	50,145
Goldeneyes	2,793	5,494	5,265	3,014	28,945	30,686
Bufflehead	3,724	2,256	7,112	6,222	42,284	41,782
Ruddy Duck	698	294	462	194	6,242	4,880
Long-tailed Duck	0	0	462	486	686	486
Eiders	0	0	0	0	0	0
Scoters	0	0	2,771	4,570	4,547	6,070
Hooded Merganser	78	196	1,201	875	6,930	4,586
Other Mergansers	466	1,079	1,847	681	7,546	5,127
Other Ducks	0	98	92	0	1,021	1,166
Total Duck Harvest	230,600±11%	186,600±14%	452,600±20%	399,200±18%	3,441,000±9%	3,300,600±10%
Total Active Duck Hunters	16,000±12%	16,600±14%	20,500±9%	20,900±12%	147,500 <sup>c</sup>	157,700 <sup>c</sup>
Total Duck Hunter Days Afield	107,200±14%	107,200±17%	171,800±19%	157,200±18%	1,269,900±8%	1,303,300±8%
Seasonal Duck Harvest Per Hunter	14.4±16%	11.2±19%	22.1±22%	19.1±22%		
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Goose Species Composition						
Canada Goose	19,670	23,629	55,717	54,601	309,769	331,807
Snow Goose	0	403	22,404	10,920	86,975	87,074
Blue Goose	0	0	97	0	846	200
Ross's Goose	0	134	97	0	8,782	15,274
White-fronted Goose	130	134	584	383	64,527	119,649
Brant	0	0	100	0	1,943	1,003
Other Geese	0	0	0	96	0	96
Total Goose Harvest	19,800±17%	24,300±29%	79,000±18%	66,000±15%	472,800±12%	555,100±22%
Total Active Goose Hunters	10,100±12%	9,400±17%	13,400±10%	12,000±11%	94,700 <sup>c</sup>	99,900 <sup>c</sup>
Total Goose Hunter Days Afield	59,500±18%	47,500±21%	72,100±16%	65,900±17%	584,800±9%	588,200±10%
Seasonal Goose Harvest Per Hunter	2.0±21%	2.6±33%	5.9±21%	5.5±19%		
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Active Waterfowl Hunters	17,200±11%	19,100±13%	22,900±8%	22,800±11%	161,600 <sup>c</sup>	172,100 <sup>c</sup>
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Sample Sizes						
Duck Wings	2,972	1,902	4,900	4,106	31,156	22,845
Goose Tails	152	181	819	699	4,130	3,566

Table 1E. Preliminary estimates of waterfowl harvest and hunter activity in Alaska and the United States during the 2007 and 2008 hunting seasons.

Duck Species Composition	Alaska		United States Total	
	2007	2008	2007	2008
Mallard	20,039	22,126	4,878,421	4,554,969
Domestic Mallard	0	0	14,139	11,684
Black Duck	0	0	137,397	120,150
Mallard x Black Duck Hybrid	0	0	15,454	14,389
Mottled Duck	0	0	73,356	94,938
Gadwall	1,042	1,010	1,475,301	1,464,272
Wigeon	13,665	9,901	821,078	874,348
Green-winged Teal	8,457	9,396	1,951,194	1,997,465
Blue-winged/Cinnamon Teal	61	0	1,121,151	843,920
Northern Shoveler	1,532	1,515	814,786	588,296
Northern Pintail	7,170	7,779	529,168	536,519
Wood Duck	0	0	1,087,841	1,143,820
Redhead	0	101	174,031	119,683
Canvasback	429	202	125,207	18,172
Greater Scaup	613	303	70,833	49,465
Lesser Scaup	613	303	224,053	179,561
Ring-necked Duck	858	505	503,833	500,686
Goldeneyes	2,696	4,647	82,321	86,412
Bufflehead	1,226	1,010	197,487	243,010
Ruddy Duck	0	0	29,538	30,195
Long-tailed Duck	0	0	30,047	37,012
Eiders	0	0	18,531	15,857
Scoters	3,958	6,477	54,135	54,264
Hooded Merganser	0	0	91,230	89,742
Other Mergansers	3,167	2,159	32,370	37,883
Other Ducks	2,375	864	25,992	16,490
Total Duck Harvest	67,900±12%	68,300±11%	14,578,900±4%	13,723,200±4%
Total Active Duck Hunters <sup>a</sup>	4,800±8%	5,200±6%	995,700 <sup>c</sup>	980,500 <sup>c</sup>
Total Duck Hunter Days Afield <sup>d</sup>	25,800±15%	25,700±12%	6,978,400±3%	6,686,400±3%
Seasonal Duck Harvest Per Hunter	14.0±14%	12.9±13%		
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Goose Species Composition				
Canada Goose	5,592	5,422	2,676,193	2,844,840
Snow Goose	0	0	442,005	425,177
Blue Goose	0	0	120,730	129,928
Ross's Goose	0	339	48,351	72,787
White-fronted Goose	308	339	352,361	319,332
Brant	900	1,700	25,143	33,603
Other Geese	0	0	1,360	234
Total Goose Harvest	6,800±25%	7,800±24%	3,666,100±6%	3,825,900±5%
Total Active Goose Hunters <sup>b</sup>	1,900±15%	2,000±13%	704,100 <sup>c</sup>	687,000 <sup>c</sup>
Total Goose Hunter Days Afield <sup>b</sup>	10,800±28%	8,900±19%	3,931,600±4%	3,851,400±4%
Seasonal Goose Harvest Per Hunter	3.6±29%	3.9±27%		
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Active Waterfowl Hunters	5,300±8%	5,700±6%	1,159,100 <sup>c</sup>	1,155,400 <sup>c</sup>
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Sample Sizes				
Duck Wings	977	604	93,375	79,587
Goose Tails	179	56	20,798	20,963

<sup>a</sup> Duck hunter statistics do not include sea duck hunter statistics for states with special sea duck seasons or sea duck permits: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Virginia, California, Oregon, and Alaska. (Refer to Table 3.)

<sup>b</sup> Goose hunter statistics do not include brant hunter statistics for coastal states with brant seasons: Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, North Carolina, Rhode Island, Virginia, California, Oregon, Washington, and Alaska. (Refer to Table 4.)

<sup>c</sup> Hunter number estimates at the flyway and national levels may be biased high because the HIP sample frames are state-specific; therefore hunters are counted twice if they hunt in more than one state. Variance inestimable.

Table 2. Flyway-specific point estimates of duck and goose harvest in Colorado, Montana, New Mexico, and Wyoming during the 2007 and 2008 hunting seasons.

	2007		2008	
	Central Flyway	Pacific Flyway	Central Flyway	Pacific Flyway
Duck Harvest				
Colorado	93,200	20,000	101,100	10,800
Montana	33,500	86,100	38,300	81,500
New Mexico	31,200	10,200	26,500	7,500
Wyoming	37,000	12,900	26,900	6,500
Goose Harvest				
Colorado	74,400	4,300	93,500	3,500
Montana	24,200	33,500	16,200	24,600
New Mexico	6,500	4,200	2,700	2,000
Wyoming	11,900	1,100	22,500	5,000



Table 3. Preliminary estimates of sea duck harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2007 and 2008 hunting seasons. <sup>1</sup>

State / Flyway	Sea Duck Harvest <sup>2</sup>		Active Sea Duck Hunters <sup>3</sup>		Sea Duck Hunter Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Connecticut	1,100 ± 195%	3,100 ± 90%	300 ± 137%	800 ± 47%	600 ± 137%	2,600 ± 65%	4.0 ± 238%	3.9 ± 102%
Delaware	2,700 ± 107%	1,700 ± 75%	300 ± 46%	200 ± 62%	2,300 ± 90%	800 ± 91%	7.9 ± 117%	7.6 ± 97%
Maine	15,900 ± 47%	19,500 ± 75%	1,800 ± 33%	1,700 ± 32%	6,200 ± 45%	6,800 ± 51%	8.6 ± 57%	11.6 ± 82%
Maryland	17,900 ± 38%	16,600 ± 34%	3,200 ± 25%	3,200 ± 25%	9,700 ± 37%	7,300 ± 29%	5.6 ± 46%	5.2 ± 42%
Massachusetts	5,900 ± 39%	9,200 ± 33%	800 ± 26%	1,400 ± 22%	3,200 ± 25%	3,900 ± 27%	7.1 ± 47%	6.8 ± 40%
New Hampshire	1,000 ± 50%	1,100 ± 48%	200 ± 51%	200 ± 40%	900 ± 60%	400 ± 37%	6.2 ± 71%	5.2 ± 62%
New Jersey	3,800 ± 73%	2,100 ± 59%	800 ± 46%	500 ± 35%	1,800 ± 52%	1,800 ± 64%	4.9 ± 86%	4.3 ± 68%
New York	14,800 ± 47%	10,500 ± 40%	2,000 ± 22%	1,600 ± 29%	9,300 ± 31%	6,100 ± 42%	7.4 ± 52%	6.6 ± 50%
Rhode Island	2,100 ± 46%	1,000 ± 49%	300 ± 30%	100 ± 26%	1,100 ± 40%	600 ± 37%	6.6 ± 55%	6.8 ± 55%
Virginia	9,500 ± 39%	12,000 ± 69%	2,500 ± 28%	2,000 ± 41%	7,300 ± 47%	10,800 ± 95%	3.9 ± 48%	6.1 ± 80%
Atlantic Flyway Total	74,700 ± 19%	76,600 ± 24%	12,200	11,600	42,500 ± 16%	41,200 ± 28%		
California	---	1,400 ± 66%	---	900 ± 85%	---	2,300 ± 92%	---	1.5 ± 108%
Oregon	200 ± 14%	100 ± 45%	<50 ± 7%	100 ± 119%	200 ± 11%	500 ± 137%	4.9 ± 15%	0.6 ± 127%
Pacific Flyway	200 ± 14%	1,400 ± 64%	<50	1,000	200 ± 11%	2,800 ± 80%		
Alaska <sup>4</sup>	9,500 ± 32%	8,000 ± 26%	1,100 ± 24%	1,100 ± 19%	5,300 ± 34%	5,500 ± 58%	8.7 ± 40%	7.5 ± 33%
U.S. Total	84,300 ± 17%	86,100 ± 22%	13,400	13,700	48,000 ± 15%	49,500 ± 25%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Sea ducks include Long-tailed Ducks, Common Eiders, King Eiders, Black Scoters, Whited-winged Scoters, and Surf Scoters.

<sup>3</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

<sup>4</sup> In addition to the aforementioned, sea ducks also include Harlequin Ducks, Common Mergansers, and Red-breasted Mergansers in Alaska.

Table 4. Preliminary estimates of Brant harvest and hunter activity along the Atlantic and Pacific coasts during the 2007 and 2008 hunting seasons. <sup>1</sup>

State / Flyway	Brant Harvest		Active Brant Hunters <sup>2</sup>		Brant Hunter Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Connecticut	200 ± 195%	300 ± 194%	100 ± 195%	100 ± 137%	100 ± 195%	500 ± 172%	2.0 ± 276%	2.5 ± 238%
Delaware	900 ± 54%	1,500 ± 52%	300 ± 44%	400 ± 47%	1,400 ± 96%	1,000 ± 66%	2.8 ± 70%	4.0 ± 70%
Maryland	1,000 ± 111%	1,800 ± 82%	300 ± 68%	400 ± 60%	1,300 ± 73%	1,000 ± 74%	3.1 ± 130%	4.4 ± 102%
Massachusetts	700 ± 39%	1,100 ± 50%	400 ± 41%	600 ± 40%	1,300 ± 38%	1,600 ± 47%	1.6 ± 57%	1.8 ± 64%
New Hampshire	100 ± 156%	100 ± 106%	100 ± 95%	100 ± 78%	300 ± 99%	100 ± 87%	1.3 ± 183%	0.8 ± 131%
New Jersey	7,600 ± 59%	7,800 ± 31%	1,500 ± 31%	1,500 ± 20%	7,700 ± 44%	5,600 ± 29%	5.0 ± 67%	5.1 ± 37%
New York	4,800 ± 23%	7,700 ± 32%	1,600 ± 23%	1,500 ± 27%	6,300 ± 25%	8,200 ± 32%	2.9 ± 33%	5.0 ± 42%
North Carolina	4,200 ± 52%	3,700 ± 77%	2,400 ± 40%	1,300 ± 57%	6,700 ± 51%	3,200 ± 68%	1.8 ± 65%	2.9 ± 96%
Rhode Island	1,200 ± 50%	1,400 ± 58%	300 ± 41%	300 ± 46%	1,300 ± 42%	1,500 ± 40%	3.4 ± 65%	4.7 ± 74%
Virginia	1,700 ± 59%	5,500 ± 39%	1,500 ± 37%	2,100 ± 39%	4,800 ± 66%	5,300 ± 37%	1.2 ± 70%	2.6 ± 55%
Atlantic Flyway Total	22,300 ± 24%	30,800 ± 17%	8,600	8,300	31,300 ± 20%	28,000 ± 16%		
California	1,800 ± 88%	1,000 ± 36%	600 ± 91%	600 ± 117%	2,900 ± 113%	1,500 ± 56%	2.8 ± 126%	1.7 ± 123%
Oregon	<50 ± 194%	<50 ± 112%	200 ± 95%	100 ± 130%	200 ± 98%	200 ± 126%	0.2 ± 216%	<0.1 ± 172%
Washington	100 ± 195%	0	300 ± 112%	200 ± 138%	1,200 ± 129%	300 ± 145%	0.3 ± 225%	0
Pacific Flyway Total	1,900 ± 82%	1,000 ± 36%	1,200	900	4,300 ± 84%	2,000 ± 49%		
Alaska	900 ± 47%	1,700 ± 46%	400 ± 36%	300 ± 28%	1,800 ± 46%	1,700 ± 64%	2.5 ± 59%	5.7 ± 53%
U.S. Total	25,200 ± 22%	33,500 ± 16%	10,100	9,500	37,300 ± 19%	31,700 ± 15%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 5. Preliminary harvest estimates for special September teal/duck seasons during the 2007 and 2008 hunting seasons.

State	Harvest										Number of	
	Green-winged Teal		Blue-winged/Cinnamon Teal		Wood Duck		Other Ducks		Total Duck Harvest		Wings Received	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
September Teal Season												
Delaware	351	1,359	117	0	0	0	0	0	468	1,359	8	14
Georgia	247	0	5,186	0	0	0	0	0	5,433	0	22	0
Maryland	505	1,851	303	1,111	0	0	0	0	808	2,961	8	16
North Carolina	0	0	472	0	0	291	0	97	472	388	4	4
South Carolina	140	0	7,574	1,821	0	0	0	0	7,714	1,821	55	12
Virginia	101	657	101	751	101	0	0	94	303	1,502	3	16
Subtotal	1,344	3,867	13,753	3,683	101	291	0	191	15,199	8,032	100	62
Alabama	0	245	14,463	5,639	0	0	0	0	14,463	5,884	45	24
Arkansas	668	403	7,677	16,509	0	0	0	0	8,345	16,912	25	42
Illinois	3,421	1,498	6,353	6,989	0	0	0	0	9,773	8,486	40	34
Indiana	455	491	6,715	3,111	0	0	0	164	7,170	3,766	63	23
Louisiana	8,667	3,674	205,764	130,075	0	0	0	367	214,431	134,117	668	365
Mississippi	1,100	0	15,668	4,324	0	0	0	0	16,768	4,324	61	19
Missouri	3,493	4,418	33,180	24,851	0	0	0	0	36,673	29,270	210	159
Ohio	1,738	764	6,951	764	0	0	0	0	8,689	1,528	35	10
Subtotal	19,541	11,493	296,771	192,262	0	0	0	531	316,312	204,286	1,147	676
Colorado	2,757	1,370	6,047	4,657	0	0	0	0	8,803	6,026	99	44
Kansas	4,534	7,200	25,582	15,120	0	0	162	480	30,278	22,800	187	95
Nebraska	4,809	10,244	27,010	20,037	0	0	160	0	31,979	30,281	399	201
New Mexico	401	146	3,321	256	0	0	0	0	3,722	402	65	11
Oklahoma	2,514	2,120	22,209	8,586	0	0	0	0	24,723	10,706	118	101
Texas	14,369	7,259	144,405	59,247	239	0	718	0	159,732	66,506	667	339
Subtotal	29,383	28,339	228,574	107,903	239	0	1,041	480	259,237	136,722	1,535	791
Total	50,268	43,699	539,098	303,847	341	291	1,041	1,202	590,747	349,039	2,782	1,529
September Duck Season												
Florida	0	0	8,228	1,688	2,312	1,266	0	0	10,540	2,953	155	28
Kentucky	1,054	0	4,217	950	14,407	27,557	0	950	19,677	29,458	56	31
Tennessee	0	0	2,932	1,939	14,075	7,027	0	0	17,008	8,966	29	37
Total	1,054	0	15,377	4,576	30,794	35,850	0	950	47,226	41,377	240	96
U.S. Total	51,322	43,699	554,475	308,424	31,135	36,141	1,041	2,152	637,973	390,416	3,022	1,625

Table 6. Preliminary estimates of the number of Canada geese harvested during the special September, regular, and special late seasons during the 2007 and 2008 hunting seasons.

State / Flyway	September		Regular		Late		Total	
	2007	2008	2007	2008	2007	2008	2007	2008
Connecticut	3,700	6,400	13,400	16,500	1,400	0	18,600	22,800
Delaware	2,100	2,200	19,900	26,400	---	---	22,000	28,600
Florida	0	0	0	0	---	---	0	0
Georgia	5,100	8,100	17,300	24,000	---	---	22,400	32,100
Maine	3,400	5,500	5,700	8,300	---	---	9,100	13,800
Maryland	10,500	6,500	151,500	207,200	---	---	161,900	213,700
Massachusetts	2,600	4,600	6,100	7,300	2,300	1,200	11,000	13,100
New Hampshire	2,400	3,400	4,100	3,600	---	---	6,500	7,000
New Jersey	2,800	6,500	27,900	22,800	3,900	1,100	34,600	30,400
New York	56,900	78,000	81,200	85,200	---	200	138,100	163,300
North Carolina	22,200	10,500	32,200	35,900	---	---	54,400	46,500
Pennsylvania	93,700	70,400	182,300	161,200	---	---	276,000	231,600
Rhode Island	200	1,400	4,800	2,500	100	200	5,100	4,100
South Carolina	13,600	10,000	11,200	13,800	---	---	24,800	23,800
Vermont	2,900	6,200	3,400	6,100	---	---	6,300	12,300
Virginia	13,600	17,500	37,800	38,000	11,800	16,800	63,300	72,200
West Virginia	2,800	1,400	3,800	3,300	---	---	6,700	4,700
Atlantic Flyway Total	238,500	238,400	602,600	662,000	19,600	19,500	860,700	920,000
Alabama	8,000	0	10,700	9,400	---	---	18,800	9,400
Arkansas	6,900	4,600	9,700	6,900	---	---	16,600	11,500
Illinois	14,400	15,100	154,000	135,000	---	---	168,500	150,100
Indiana	15,800	14,400	47,500	46,500	6,300	6,900	69,600	67,700
Iowa	11,200	600	53,500	61,600	---	---	64,600	62,200
Kentucky	2,900	7,100	25,000	33,200	---	---	27,900	40,300
Louisiana	---	0	3,100	0	---	---	3,100	0
Michigan	59,400	52,200	82,000	115,800	7,800	4,800	149,200	172,700
Minnesota	105,400	116,800	98,100	104,100	---	---	203,500	221,000
Mississippi	4,600	3,200	9,100	1,600	---	---	13,700	4,800
Missouri	---	0	42,200	81,900	---	---	42,200	81,900
Ohio	13,500	16,500	62,900	55,500	1,800	---	78,300	72,100
Tennessee	13,300	7,100	13,300	10,900	---	---	26,600	18,000
Wisconsin	37,000	33,200	77,200	77,000	---	---	114,200	110,200
Mississippi Flyway Total	288,100	270,700	700,400	739,400	8,100	11,600	996,700	1,021,700
Kansas	---	0	60,000	87,100	---	---	60,000	87,100
Nebraska	2,000	1,900	61,800	83,400	---	---	63,800	85,300
North Dakota <sup>a</sup>	34,300	18,400	74,600	64,200	---	---	108,900	99,100
Oklahoma	1,200	3,100	47,500	31,900	---	---	48,700	35,000
South Dakota	27,300	26,100	60,100	68,400	---	---	87,300	94,500
Colorado	0	0	4,300	3,500	---	---	4,300	3,500
Oregon	8,000	10,400	75,200	83,100	---	---	83,200	93,400
Washington	3,000	2,500	50,700	50,500	1,900	1,600	55,700	54,600
Wyoming	300	700	900	4,300	---	---	1,100	5,000

<sup>a</sup> The total harvest for North Dakota in 2008 includes 16,500 geese taken during the August conservation order.

Table 7. Waterfowl harvest estimates in Canada during the 2007 and 2008 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

Duck Species Composition	Newfoundland		Prince Edward Isl.		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Mallard	1,837	48	1,289	1,725	5,711	4,748	7,030	5,662	65,187	69,899	119,403	119,971	68,121	60,690
Black Duck	20,485	22,067	7,054	5,829	24,180	22,764	10,391	12,285	27,596	29,154	13,462	11,094	140	160
Gadwall	0	0	414	330	305	25	220	306	1,467	1,979	1,205	2,213	6,745	5,905
Wigeon	304	0	53	75	403	677	1,320	1,013	1,270	2,002	5,213	5,772	3,521	1,631
Green-winged Teal	4,748	3,993	1,146	1,217	9,914	6,691	8,295	4,541	33,295	34,876	14,682	16,608	7,223	5,205
Blue-winged/Cinnamon Teal	0	0	106	108	202	224	1,287	1,165	1,695	1,237	4,731	5,004	5,312	13,309
Northern Shoveler	0	0	0	0	19	0	0	69	427	801	924	262	3,357	3,578
Northern Pintail	228	427	584	252	660	393	634	427	5,533	4,887	5,059	5,745	13,329	7,911
Wood Duck	47	133	143	0	1,262	578	2,601	2,169	16,771	14,629	37,253	46,824	3,636	1,803
Redhead	0	0	0	0	0	0	0	0	85	85	3,728	3,581	5,163	6,020
Canvasback	0	0	0	0	0	0	0	0	0	0	1,812	1,018	2,344	3,667
Greater Scaup	619	0	101	41	91	414	165	243	815	1,447	6,764	5,876	88	343
Lesser Scaup	146	215	47	33	341	90	209	118	1,953	3,379	10,813	14,647	10,291	12,087
Ring-necked Duck	2,559	4,637	350	1,117	632	851	3,128	2,425	3,730	3,599	19,281	16,426	7,694	3,490
Goldeneyes	3,016	1,495	409	138	2,989	4,309	1,114	2,802	1,266	3,021	7,862	7,446	1,626	643
Bufflehead	0	0	49	0	2,231	869	321	429	633	442	11,734	9,345	3,752	2,039
Ruddy Duck	0	0	0	0	0	0	0	0	254	0	1,080	606	769	0
Long-tailed Duck	973	559	0	0	461	131	402	62	285	302	676	725	0	0
Eiders	20,143	21,055	0	0	4,551	3,540	1,408	2,272	2,331	2,466	293	0	0	863
Scoters	86	496	212	0	1,148	2,639	216	89	1,742	4,799	763	750	0	64
Hooded Merganser	76	147	0	205	340	371	432	798	3,955	3,393	4,950	3,884	598	579
Other Mergansers	8,287	3,805	330	94	1,907	1,672	151	131	2,295	1,730	1,925	1,718	0	0
Other Ducks	0	0	0	0	0	45	0	0	0	109	0	0	0	0
Total Duck Harvest	63,554	59,079	12,287	11,164	57,347	51,031	39,324	37,006	172,585	184,236	273,613	279,513	143,709	129,988
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Goose Species Composition														
Canada Goose	5,848	6,871	13,586	16,468	7,544	10,040	9,098	9,916	100,811	138,873	179,459	194,242	97,069	91,804
Snow Goose	0	0	0	0	0	75	578	209	61,652	89,561	254	121	5,477	13,781
Blue Goose	0	0	0	0	0	0	0	0	703	1,172	0	0	13,975	18,053
Ross's Goose	0	0	0	301	0	0	0	0	0	0	0	141	4,210	10,151
White-fronted Goose	0	0	0	0	0	0	0	0	0	0	0	0	992	139
Brant	0	0	0	0	0	0	0	0	524	1,014	133	51	0	0
Total Goose Harvest	5,848	6,871	13,586	16,770	7,544	10,115	9,676	10,125	163,690	230,620	179,846	194,556	121,723	133,926
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Migratory Bird Permits Sold	15,662	16,144	1,563	1,577	5,461	5,576	5,399	5,530	27,871	29,119	53,594	55,016	13,805	13,545

Table 7 (continued). Waterfowl harvest estimates in Canada during the 2007 and 2008 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

Duck Species Composition	Saskatchewan		Alberta		British Columbia		Nunavut		Northwest Terr.		Yukon Territory		Canada Total	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Mallard	163,912	150,906	82,133	97,567	30,167	35,924	0	0	897	0	265	488	545,952	547,628
Black Duck	503	184	0		0		0	0	0	0	0	0	103,811	103,537
Gadwall	13,839	16,212	14,522	16,366	1,273	738	0	0	0	0	0	0	39,990	44,074
Wigeon	5,227	4,001	7,468	6,362	6,497	8,150	0	0	0	0	1,325	0	32,601	29,683
Green-winged Teal	6,671	6,683	3,735	5,884	1,936	2,286	0	0	0	0	265	244	91,910	88,228
Blue-winged/Cinnamon Teal	12,263	15,132	10,676	7,894	253	221	0	0	0	0	0	0	36,525	44,294
Northern Shoveler	9,777	5,958	12,218	6,982	597	827	0	0	224	0	0	244	27,543	18,721
Northern Pintail	18,054	15,076	10,085	12,833	2,410	2,989	0	0	224	0	0	0	56,800	50,940
Wood Duck	0	0	0	0	546	0	0	0	0	0	0	0	62,259	66,136
Redhead	4,816	2,360	4,856	3,521	0	0	0	0	0	0	0	0	18,648	15,567
Canvasback	4,905	2,310	3,334	2,265	26	35	0	0	0	0	0	0	12,421	9,295
Greater Scaup	0	0	0	140	29	35	0	0	0	0	0	0	8,672	8,539
Lesser Scaup	907	0	5,852	7,259	0	281	0	0	224	0	0	0	30,783	38,109
Ring-necked Duck	883	1,816	620	1,564	209	262	0	0	0	0	0	0	39,086	36,187
Goldeneyes	264	0	1,457	1,964	156	587	0	0	0	0	0	0	20,159	22,405
Bufflehead	231	611	2,183	2,609	149	735	0	0	0	0	0	0	21,283	17,079
Ruddy Duck	289	1,513	0		0	0	0	0	0	0	0	0	2,392	2,119
Long-tailed Duck	0	0	0		0	0	0	0	0	0	0	0	2,797	1,779
Eiders	0	0	0		0	0	0	0	0	0	0	0	28,726	30,196
Scoters	0	0	0		0	0	0	0	0	0	0	0	4,167	8,837
Hooded Merganser	0	0	338	191	65	248	0	0	0	0	0	0	10,754	9,816
Other Mergansers	0	0	0		0	32	0	0	0	0	0	0	14,895	9,182
Other Ducks	0	0	0		0	0	0	0	0	334	0	0	0	154
Total Duck Harvest	242,541	222,761	159,477	173,402	44,313	53,351	0	0	1,569	334	1,855	975	1,212,174	1,202,840
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<b>Goose Species Composition</b>														
Canada Goose	169,206	155,728	110,830	125,624	9,892	10,642	0	0	0	0	514	0	703,857	760,208
Snow Goose	40,033	65,275	14,520	9,477	4,626	2,406	0	0	0	0	0	0	127,140	180,905
Blue Goose	26,901	53,033	456	93			0	0	0	0	0	0	42,035	72,351
Ross's Goose	12,893	35,227	934	2,345			0	0	0	0	0	0	18,037	48,165
White-fronted Goose	42,467	55,647	26,300	37,893	199	183	0	0	0	0	0	0	69,958	93,862
Brant							0	0	0	0	0	0	657	1,065
Total Goose Harvest	291,500	364,908	153,040	175,432	14,717	13,232	0	0	0	0	514	78	961,684	1,156,633
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Migratory Bird Permits Sold	19,275	18,050	20,395	20,446	6,112	6,360	19	22	184	190	207	183	169,547	171,762

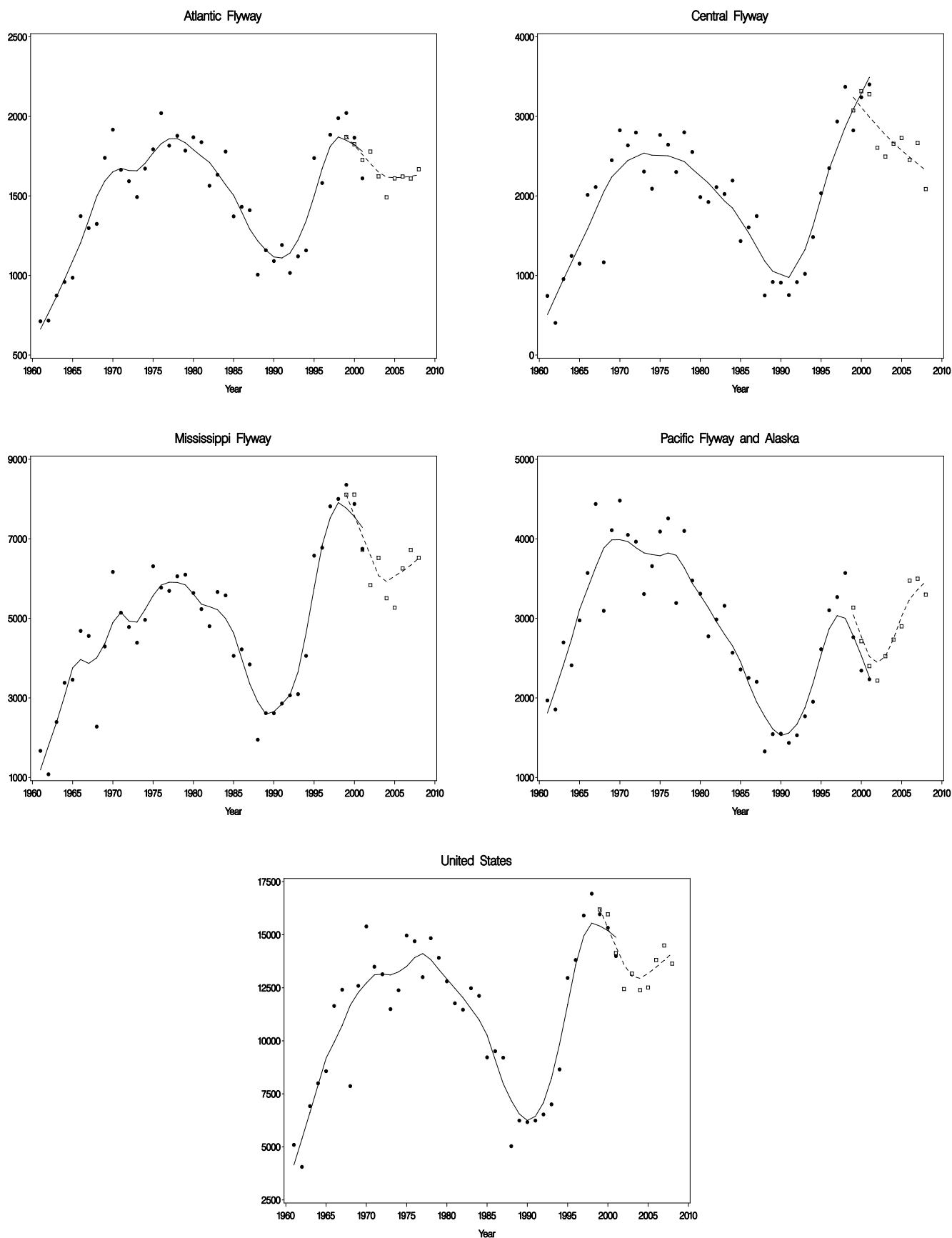


Figure 1. Number of ducks harvested (in thousands) by hunters in the the United States, 1961-2008. (Federal Duck Stamp Survey - circles and solid line; HIP survey squares and dashed line).

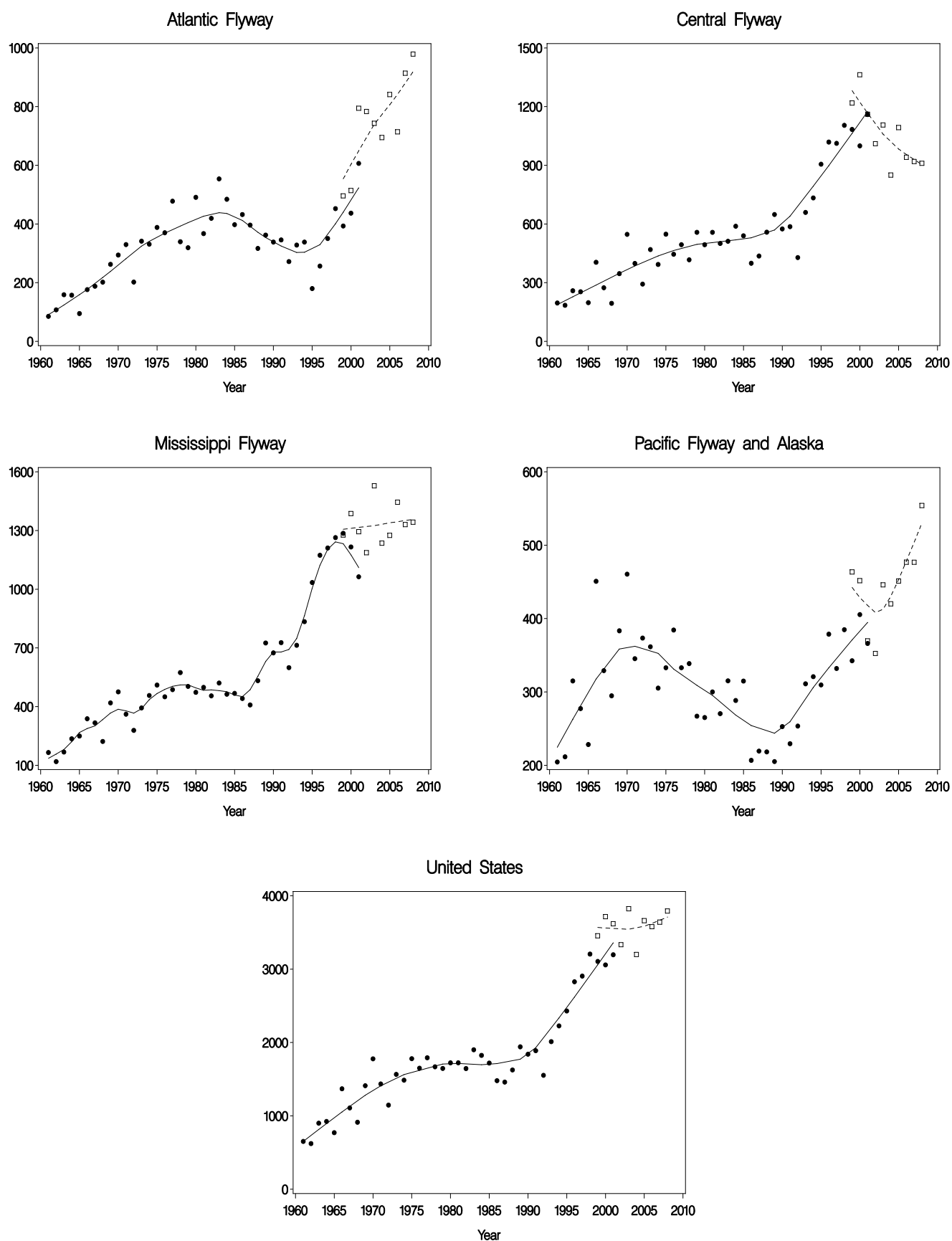


Figure 2. Number of geese harvested (in thousands) by hunters in the the United States, 1961-2008. (Federal Duck Stamp Survey - circles and solid line; HIP survey squares and dashed line).

Table 8. Preliminary weighted age ratios of mallards in state harvests during the 2004-2008 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult <sup>a</sup>				
	2004	2005	2006	2007	2008
Connecticut	1.4	1.5	1.2	1.8	1.0
Delaware	1.8	1.6	1.4	1.9	1.5
Florida	---	---	4.0	3.0	---
Georgia	1.1	1.5	1.8	---	1.0
Maine	1.3	1.9	1.7	1.9	2.0
Maryland	1.7	1.9	1.3	1.7	1.3
Massachusetts	1.2	1.1	1.4	1.2	1.6
New Hampshire	1.9	1.4	1.5	1.9	1.0
New Jersey	1.3	1.3	1.0	1.2	0.9
New York	1.5	1.9	1.8	1.3	1.4
North Carolina	1.5	2.5	1.7	1.2	1.4
Pennsylvania	1.0	1.0	1.0	1.2	0.9
Rhode Island	0.7	0.9	0.7	0.4	0.8
South Carolina	1.7	1.7	2.3	1.9	1.5
Vermont	3.9	1.8	1.8	2.6	3.9
Virginia	0.9	0.9	0.7	0.9	0.9
West Virginia	0.8	1.0	0.6	0.7	0.6
Atlantic Flyway Total <sup>b</sup>	1.37	1.54	1.35	1.31	1.22
Alabama	1.0	1.8	1.1	1.1	1.3
Arkansas	0.8	0.8	0.8	0.7	0.7
Illinois	1.2	2.3	2.0	1.4	1.2
Indiana	1.6	1.4	1.5	1.2	1.4
Iowa	0.9	2.8	1.8	1.9	1.8
Kentucky	0.9	2.0	1.2	1.1	0.6
Louisiana	0.6	2.3	1.2	1.3	0.8
Michigan	1.6	1.7	2.2	1.7	1.9
Minnesota	1.5	2.7	3.0	2.1	2.8
Mississippi	0.5	1.7	0.9	1.1	0.7
Missouri	1.0	2.0	1.4	1.6	0.9
Ohio	1.4	1.3	1.8	1.4	1.1
Tennessee	1.0	2.0	1.5	1.0	0.9
Wisconsin	1.8	2.7	2.8	1.7	2.3
Mississippi Flyway Total <sup>b</sup>	1.03	1.63	1.44	1.20	1.06



Table 8 (continued). Preliminary weighted age ratios of mallards in state harvests during the 2004-2008 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult <sup>a</sup>				
	2004	2005	2006	2007	2008
Colorado	0.7	1.0	0.7	1.1	0.5
Kansas	0.6	1.1	0.8	1.0	0.6
Montana	0.6	0.9	1.0	1.2	0.8
Nebraska	0.5	1.1	1.0	1.0	0.7
New Mexico	1.2	1.9	0.8	1.7	1.2
North Dakota	1.2	2.6	2.4	2.1	1.3
Oklahoma	0.6	0.5	0.6	0.6	0.3
South Dakota	1.2	2.0	1.6	1.8	1.2
Texas	0.5	1.0	0.7	0.7	0.4
Wyoming	0.6	0.8	0.9	0.8	0.5
Central Flyway Total <sup>b</sup>	0.74	1.26	1.05	1.07	0.70
Arizona	1.1	1.7	1.6	1.4	1.1
California	1.9	3.0	2.5	1.3	1.5
Colorado	1.6	2.0	1.8	1.3	0.7
Idaho	1.2	1.6	1.5	1.2	1.1
Montana	0.8	0.9	1.0	0.9	0.9
Nevada	1.5	2.5	2.1	0.8	1.7
New Mexico	1.6	0.9	0.1	0.9	0.8
Oregon	1.3	1.9	2.1	1.5	1.4
Utah	1.6	2.2	1.5	1.1	1.1
Washington	1.2	1.6	1.5	1.1	0.9
Wyoming	1.3	2.9	2.4	3.3	2.5
Pacific Flyway Total <sup>b</sup>	1.43	1.98	1.82	1.23	1.19
Alaska	4.8	5.5	2.2	2.7	2.5
U.S. Total <sup>b</sup>	1.06	1.62	1.45	1.20	1.04

<sup>a</sup> Ratio not shown if based on a sample of less than 20 wings

<sup>b</sup> In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 9. Preliminary weighted age ratios of ducks harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult <sup>a, b</sup>				
	2004	2005	2006	2007	2008
Mallard					
Atlantic	1.37	1.54	1.35	1.31	1.22
Mississippi	1.03	1.63	1.44	1.20	1.06
Central	0.74	1.26	1.05	1.07	0.70
Pacific	1.43	1.98	1.82	1.23	1.19
U.S. Total	1.06	1.62	1.45	1.20	1.04
Black duck					
Atlantic	0.87	1.56	1.39	1.31	0.96
Mississippi	1.20	1.63	1.69	1.02	1.03
U.S. Total	0.97	1.58	1.47	1.22	0.98
Mottled duck					
Atlantic	1.18	1.30	1.67	1.17	0.81
Mississippi	0.92	2.63	1.82	1.44	0.76
Central	1.40	0.85	1.91	1.12	0.49
U.S. Total	1.07	1.60	1.80	1.34	0.73
Gadwall					
Atlantic	0.73	1.30	1.35	1.35	0.79
Mississippi	0.93	1.81	1.39	1.37	0.74
Central	0.92	1.17	0.94	1.29	0.70
Pacific	0.96	1.78	1.13	0.79	0.79
U.S. Total	0.93	1.52	1.19	1.25	0.74
American wigeon					
Atlantic	0.75	0.84	1.95	1.22	0.67
Mississippi	1.30	1.85	2.62	1.65	0.91
Central	0.80	0.80	0.83	0.82	0.94
Pacific	1.23	2.05	1.38	1.31	1.09
U.S. Total	1.09	1.48	1.40	1.26	1.02
Green-winged teal					
Atlantic	1.30	1.67	2.00	1.90	1.61
Mississippi	1.07	1.96	2.30	1.98	1.38
Central	1.82	1.37	1.97	1.83	1.68
Pacific	1.28	1.74	1.45	1.22	0.92
U.S. Total	1.29	1.72	1.89	1.66	1.26
Blue-winged/Cinnamon teal					
Atlantic	0.88	1.36	1.39	1.24	0.86
Mississippi	1.34	2.47	1.75	1.87	0.92
Central	1.57	2.28	2.10	2.85	1.59
Pacific	0.87	1.41	1.07	1.73	0.83
U.S. Total	1.29	2.09	1.74	2.03	1.03

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult <sup>a, b</sup>				
	2004	2005	2006	2007	2008
Northern shoveler					
Atlantic	0.83	2.87	1.55	1.38	0.73
Mississippi	1.15	1.94	1.80	1.66	0.80
Central	1.37	1.84	2.02	2.04	1.35
Pacific	1.09	2.05	1.40	1.50	0.70
U.S. Total	1.16	1.99	1.62	1.64	0.80
Northern pintail					
Atlantic	0.76	2.07	1.66	1.70	0.94
Mississippi	1.03	1.29	1.28	1.43	0.96
Central	1.06	1.27	0.94	0.82	1.06
Pacific	0.69	1.38	0.98	1.03	0.54
U.S. Total	0.89	1.38	1.09	1.13	0.75
Wood duck					
Atlantic	1.28	1.27	0.99	0.97	1.21
Mississippi	1.53	1.32	1.61	1.28	1.77
Central	1.36	1.01	1.08	1.64	1.63
Pacific	2.39	2.41	2.06	1.12	1.23
U.S. Total	1.47	1.32	1.37	1.18	1.53
Redhead					
Atlantic	0.29	2.18	1.47	1.47	0.13
Mississippi	0.80	3.15	2.32	2.45	0.68
Central	0.81	2.63	2.13	2.21	0.56
Pacific	1.54	2.11	1.50	1.18	0.52
U.S. Total	0.89	2.70	2.07	2.09	0.56
Canvasback					
Atlantic	0.36	1.53	---	1.42	---
Mississippi	0.31	1.07	2.57	1.15	---
Central	0.73	3.02	1.71	1.50	0.75
Pacific	0.65	3.23	1.30	0.99	---
U.S. Total	0.50	1.67	1.91	1.14	0.84
Greater scaup					
Atlantic	2.06	0.87	1.81	0.78	0.37
Mississippi	3.05	2.58	1.80	1.26	0.79
Central	8.65	---	---	---	---
Pacific	1.71	1.06	0.56	1.23	1.22
U.S. Total	2.39	1.49	1.33	1.19	0.80

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult <sup>a, b</sup>				
	2004	2005	2006	2007	2008
Lesser scaup					
Atlantic	0.37	0.50	0.85	0.77	0.46
Mississippi	0.89	0.57	1.79	1.05	0.63
Central	1.16	0.54	1.13	1.08	0.67
Pacific	1.74	2.11	1.77	1.36	2.57
U.S. Total	0.92	0.63	1.39	1.05	0.75
Ring-necked duck					
Atlantic	1.02	2.63	1.93	1.01	0.92
Mississippi	1.44	1.71	2.30	1.81	1.28
Central	1.70	0.93	0.95	0.96	0.86
Pacific	1.46	1.91	1.59	1.49	1.21
U.S. Total	1.40	1.71	1.86	1.38	1.10
Common goldeneye					
Atlantic	0.71	0.54	0.79	0.55	0.49
Mississippi	0.60	1.17	1.16	1.11	0.75
Central	0.62	1.50	1.15	0.51	0.56
Pacific	0.78	0.80	0.98	0.78	1.19
U.S. Total	0.71	0.88	1.02	0.81	0.81
Bufflehead					
Atlantic	0.68	0.88	0.97	0.81	0.67
Mississippi	1.27	0.76	1.07	1.26	0.85
Central	1.09	1.20	0.70	0.84	0.54
Pacific	1.18	1.13	0.78	1.06	0.71
U.S. Total	1.01	0.93	0.95	1.00	0.73
Ruddy duck					
Atlantic	1.33	3.08	3.62	2.15	0.81
Mississippi	2.19	4.11	4.40	3.61	0.89
Central	---	---	4.31	2.94	0.77
Pacific	0.64	1.80	1.26	1.49	0.42
U.S. Total	1.23	2.62	3.18	2.44	0.76
Hooded merganser					
Atlantic	0.92	1.00	0.78	0.88	0.61
Mississippi	1.05	1.56	0.93	0.87	1.34
Central	0.46	1.77	1.42	1.40	0.85
Pacific	1.05	1.24	1.00	0.87	2.22
U.S. Total	0.95	1.29	0.88	0.91	0.94

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult <sup>a, b</sup>				
	2004	2005	2006	2007	2008
Common merganser					
Atlantic	1.23	1.39	1.04	0.74	0.52
Mississippi	---	---	---	---	0.85
Central	0.77	---	---	---	---
Pacific	0.84	0.92	0.93	1.04	0.68
U.S. Total	1.31	1.40	1.38	0.78	0.71
Red-breasted merganser					
Atlantic	0.46	0.91	0.96	1.11	1.30
U.S. Total	0.31	0.89	1.11	1.21	1.22
Long-tailed duck					
Atlantic	0.30	0.52	0.76	0.86	0.35
Mississippi	---	0.53	1.18	---	0.27
U.S. Total	0.56	0.54	0.87	0.79	0.35
Common eider					
Atlantic	0.18	0.10	0.06	0.19	0.27
U.S. Total	0.18	0.10	0.06	0.19	0.27
Black scoter					
Atlantic	0.31	0.34	1.37	0.44	0.26
U.S. Total	0.46	0.48	1.54	0.75	0.45
White-winged scoter					
Atlantic	0.13	0.65	2.21	0.82	0.74
U.S. Total	0.67	1.25	2.95	1.56	0.64
Surf scoter					
Atlantic	0.24	0.25	0.36	0.43	0.31
Pacific	1.22	0.43	0.41	1.63	0.27
U.S. Total	0.31	0.34	0.38	0.58	0.36

<sup>a</sup> Ratio not shown if based on a sample of less than 20 wings

<sup>b</sup> In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 10. Preliminary weighted sex ratios of mallards in state harvests during the 2004-2008 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Males per female <sup>a</sup>				
	2004	2005	2006	2007	2008
Connecticut	2.1	2.2	2.2	2.0	2.4
Delaware	1.5	1.6	1.6	1.5	1.6
Florida	---	---	3.0	---	---
Georgia	1.6	0.7	2.2	---	2.6
Maine	1.6	1.5	1.7	1.7	1.8
Maryland	2.0	1.8	1.9	1.7	1.9
Massachusetts	1.9	2.1	1.7	1.9	1.9
New Hampshire	1.6	1.4	1.3	1.4	1.1
New Jersey	1.8	2.2	1.7	1.7	1.6
New York	1.9	1.9	1.9	1.7	1.9
North Carolina	1.7	2.6	2.2	2.5	2.1
Pennsylvania	2.0	2.3	2.1	2.0	2.1
Rhode Island	2.5	2.0	2.7	2.1	2.8
South Carolina	2.2	2.6	2.0	1.9	2.8
Vermont	1.3	1.6	1.7	1.8	1.8
Virginia	2.2	1.9	2.2	1.9	2.2
West Virginia	2.5	1.4	2.0	2.5	1.9
Atlantic Flyway Total <sup>b</sup>	1.91	2.00	1.96	1.87	2.00
Alabama	2.6	1.6	2.0	1.6	1.6
Arkansas	3.3	3.1	3.2	3.9	3.3
Illinois	2.7	2.5	2.1	2.3	2.1
Indiana	1.6	2.3	2.6	2.5	2.7
Iowa	3.1	2.3	2.3	2.4	1.9
Kentucky	2.4	2.7	2.8	3.0	2.2
Louisiana	2.5	1.5	1.6	2.4	2.2
Michigan	2.1	2.3	2.1	2.3	2.1
Minnesota	1.5	1.8	2.2	2.2	1.8
Mississippi	3.2	2.3	4.2	2.8	2.9
Missouri	2.7	2.5	2.8	2.7	3.4
Ohio	2.2	1.8	2.6	2.6	3.0
Tennessee	2.6	2.2	2.2	2.3	3.0
Wisconsin	2.0	1.8	2.0	2.1	2.2
Mississippi Flyway Total <sup>b</sup>	2.51	2.35	2.51	2.65	2.58

Table 10 (continued). Preliminary weighted sex ratios of mallards in state harvests during the 2004-2008 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Males per female <sup>a</sup>				
	2004	2005	2006	2007	2008
Colorado	3.0	2.9	3.4	3.1	3.4
Kansas	5.8	5.6	3.8	4.8	7.1
Montana	3.4	3.8	4.7	2.9	3.8
Nebraska	4.3	4.6	4.0	4.1	3.8
New Mexico	2.4	2.1	3.5	2.2	2.9
North Dakota	2.5	2.5	3.2	3.4	3.8
Oklahoma	4.0	3.7	3.6	3.6	4.1
South Dakota	3.8	3.2	4.1	3.5	5.1
Texas	3.1	2.2	2.8	3.3	2.7
Wyoming	7.0	4.1	7.1	6.6	6.6
Central Flyway Total <sup>b</sup>	3.51	3.06	3.52	3.62	4.13
Arizona	1.4	1.4	1.9	1.9	1.7
California	2.7	2.5	2.1	2.3	2.3
Colorado	3.0	2.4	3.6	2.3	2.4
Idaho	3.5	2.8	2.7	3.3	3.2
Montana	3.4	3.6	3.5	3.5	3.1
Nevada	2.0	1.8	2.8	1.8	1.7
New Mexico	2.9	2.1	2.3	4.1	4.1
Oregon	1.8	1.8	1.9	1.7	2.1
Utah	2.1	2.2	2.2	2.4	1.9
Washington	2.6	2.0	2.1	2.6	2.8
Wyoming	1.6	2.2	2.9	1.4	1.7
Pacific Flyway Total <sup>b</sup>	2.60	2.30	2.19	2.33	2.44
Alaska	0.9	1.1	1.5	1.5	1.6
U.S. Total <sup>b</sup>	2.62	2.40	2.47	2.60	2.63

<sup>a</sup> Ratio not shown if based on a sample of less than 20 wings

<sup>b</sup> In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 11. Preliminary weighted sex ratios of ducks harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Males per female <sup>a</sup>				
	2004	2005	2006	2007	2008
Mallard					
Atlantic	1.91	2.00	1.96	1.87	2.00
Mississippi	2.51	2.35	2.51	2.65	2.58
Central	3.51	3.06	3.52	3.62	4.13
Pacific	2.60	2.30	2.19	2.33	2.44
U.S. Total	2.62	2.40	2.47	2.60	2.63
Black duck					
Atlantic	1.21	1.23	1.17	1.08	1.08
Mississippi	1.82	1.31	0.69	0.80	1.21
U.S. Total	1.37	1.25	1.01	0.99	1.11
Mottled duck					
Atlantic	0.85	0.81	0.92	0.99	1.13
Mississippi	0.64	0.71	0.94	0.62	0.77
Central	1.27	1.57	1.13	0.94	1.50
U.S. Total	0.80	0.90	0.96	0.71	0.89
Gadwall					
Atlantic	1.81	1.38	1.52	1.81	1.96
Mississippi	1.72	1.73	1.79	1.93	1.84
Central	1.65	1.54	1.78	1.76	1.83
Pacific	1.97	1.50	1.54	1.64	1.91
U.S. Total	1.73	1.62	1.74	1.84	1.85
American wigeon					
Atlantic	1.64	1.60	1.56	2.12	1.95
Mississippi	1.27	1.65	1.45	1.36	1.32
Central	1.79	1.73	1.92	1.80	1.69
Pacific	1.70	1.50	1.48	1.48	1.74
U.S. Total	1.61	1.58	1.57	1.52	1.64
Green-winged teal					
Atlantic	1.26	1.34	1.26	1.12	1.45
Mississippi	1.70	2.12	1.88	1.95	1.92
Central	1.56	1.93	1.82	2.07	1.65
Pacific	1.63	1.59	1.59	1.53	1.74
U.S. Total	1.59	1.79	1.69	1.73	1.76
Blue-winged/Cinnamon teal					
Atlantic	1.60	1.32	1.31	1.28	1.51
Mississippi	1.14	1.16	1.33	1.39	1.43
Central	1.31	1.41	1.29	1.12	1.19
Pacific	1.88	1.21	1.27	1.29	1.71
U.S. Total	1.29	1.26	1.31	1.29	1.39



Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Males per female <sup>a</sup>				
	2004	2005	2006	2007	2008
Northern shoveler					
Atlantic	1.72	1.51	1.13	1.47	1.27
Mississippi	1.69	1.50	1.78	1.82	1.88
Central	1.53	1.44	1.39	1.71	1.54
Pacific	1.85	1.70	1.50	1.44	1.45
U.S. Total	1.72	1.54	1.56	1.61	1.63
Northern pintail					
Atlantic	1.31	1.59	1.29	2.10	2.09
Mississippi	2.05	1.98	2.52	1.98	2.32
Central	2.09	2.60	2.34	2.41	2.48
Pacific	3.62	2.54	2.79	2.36	2.76
U.S. Total	2.53	2.31	2.48	2.20	2.51
Wood duck					
Atlantic	1.84	1.88	2.05	1.97	2.06
Mississippi	1.72	1.88	1.76	1.77	1.68
Central	2.17	2.17	1.50	2.11	1.90
Pacific	1.46	1.75	1.51	1.72	1.86
U.S. Total	1.76	1.89	1.81	1.85	1.82
Redhead					
Atlantic	1.59	1.10	1.23	1.96	2.35
Mississippi	1.33	1.61	1.50	1.08	1.10
Central	2.23	1.43	1.26	1.55	1.83
Pacific	1.85	1.47	1.77	1.81	1.45
U.S. Total	1.73	1.47	1.42	1.39	1.49
Canvasback					
Atlantic	3.21	1.10	---	0.74	---
Mississippi	1.03	1.34	1.89	2.05	---
Central	1.11	1.46	1.63	1.80	2.60
Pacific	1.42	0.88	1.02	1.17	---
U.S. Total	1.46	1.27	1.52	1.54	2.28
Greater scaup					
Atlantic	0.91	1.13	1.13	1.79	1.95
Mississippi	0.79	1.13	1.06	0.96	1.23
Central	1.06	---	---	---	---
Pacific	1.67	2.42	1.22	1.90	2.26
U.S. Total	1.05	1.32	1.10	1.51	1.58

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Males per female <sup>a</sup>				
	2004	2005	2006	2007	2008
Lesser scaup					
Atlantic	2.35	2.57	2.14	2.53	1.81
Mississippi	1.64	2.56	1.53	1.93	2.18
Central	1.71	2.80	1.45	1.53	1.82
Pacific	1.48	1.54	1.83	1.55	1.53
U.S. Total	1.73	2.43	1.65	1.85	1.95
Ring-necked duck					
Atlantic	1.67	1.58	1.62	1.89	1.54
Mississippi	2.05	1.77	1.71	1.94	2.18
Central	1.62	2.18	2.27	2.79	2.47
Pacific	1.38	1.79	1.61	1.83	1.53
U.S. Total	1.81	1.78	1.74	2.02	1.94
Common goldeneye					
Atlantic	1.08	2.05	1.69	1.38	1.28
Mississippi	2.09	1.23	1.61	1.32	1.64
Central	1.17	2.13	2.31	1.73	1.36
Pacific	1.62	2.47	1.37	1.29	1.42
U.S. Total	1.58	1.80	1.53	1.36	1.46
Bufflehead					
Atlantic	2.26	1.53	1.66	1.65	1.96
Mississippi	1.35	1.35	2.17	1.79	1.39
Central	0.92	1.36	1.88	1.42	1.95
Pacific	1.17	1.69	1.84	1.63	1.10
U.S. Total	1.46	1.48	1.90	1.66	1.53
Hooded merganser					
Atlantic	1.74	3.14	1.59	2.97	2.07
Mississippi	1.42	4.49	3.04	2.86	1.83
Central	1.16	---	---	---	4.04
Pacific	2.17	---	---	0.87	---
U.S. Total	1.51	3.24	2.07	2.55	2.12
Common merganser					
Atlantic	0.70	0.78	0.63	1.13	1.05
Mississippi	---	---	---	---	0.26
Central	0.63	---	---	---	---
Pacific	1.53	2.00	1.06	0.92	0.82
U.S. Total	0.86	1.46	0.83	1.06	0.75

<sup>a</sup> Ratio not shown if based on a sample of less than 20 wings

<sup>b</sup> In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 12. Preliminary weighted age ratios of geese harvested during the 2004-2008 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult <sup>a, b</sup>				
	2004	2005	2006	2007	2008
Canada goose					
Atlantic	0.46	0.62	0.53	0.40	0.59
Mississippi	0.38	0.52	0.54	0.50	0.51
Central	0.40	0.54	0.47	0.40	0.51
Pacific	0.61	0.47	0.45	0.44	0.38
U.S. Total	0.43	0.54	0.51	0.44	0.52
Snow goose					
Atlantic	1.02	0.81	0.53	0.56	1.46
Mississippi	0.15	0.39	0.75	0.34	0.29
Central	0.20	0.41	0.49	0.20	0.54
Pacific	0.51	1.36	0.70	0.64	0.17
U.S. Total	0.26	0.52	0.60	0.33	0.46
Blue goose					
Mississippi	0.31	0.48	0.62	0.35	0.23
Central	0.17	0.81	0.53	0.43	0.64
U.S. Total	0.26	0.59	0.58	0.39	0.41
Ross' goose					
Mississippi	0.93	---	---	---	2.07
Central	0.34	1.55	1.37	0.91	1.57
Pacific	0.24	0.91	0.90	0.22	0.39
U.S. Total	0.35	1.60	1.79	0.64	1.26
Greater white-fronted goose					
Mississippi	0.44	0.58	0.91	0.31	0.35
Central	0.65	0.81	1.16	0.70	0.50
Pacific	0.72	1.16	0.86	0.68	0.72
U.S. Total	0.55	0.77	0.97	0.48	0.50
Brant					
Atlantic	0.32	0.15	0.27	0.67	0.68
Pacific	1.19	1.63	0.27	0.74	0.89
U.S. Total	0.38	0.20	0.27	0.68	0.70

<sup>a</sup> Ratio not shown if based on a sample of less than 20 wings

<sup>b</sup> In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

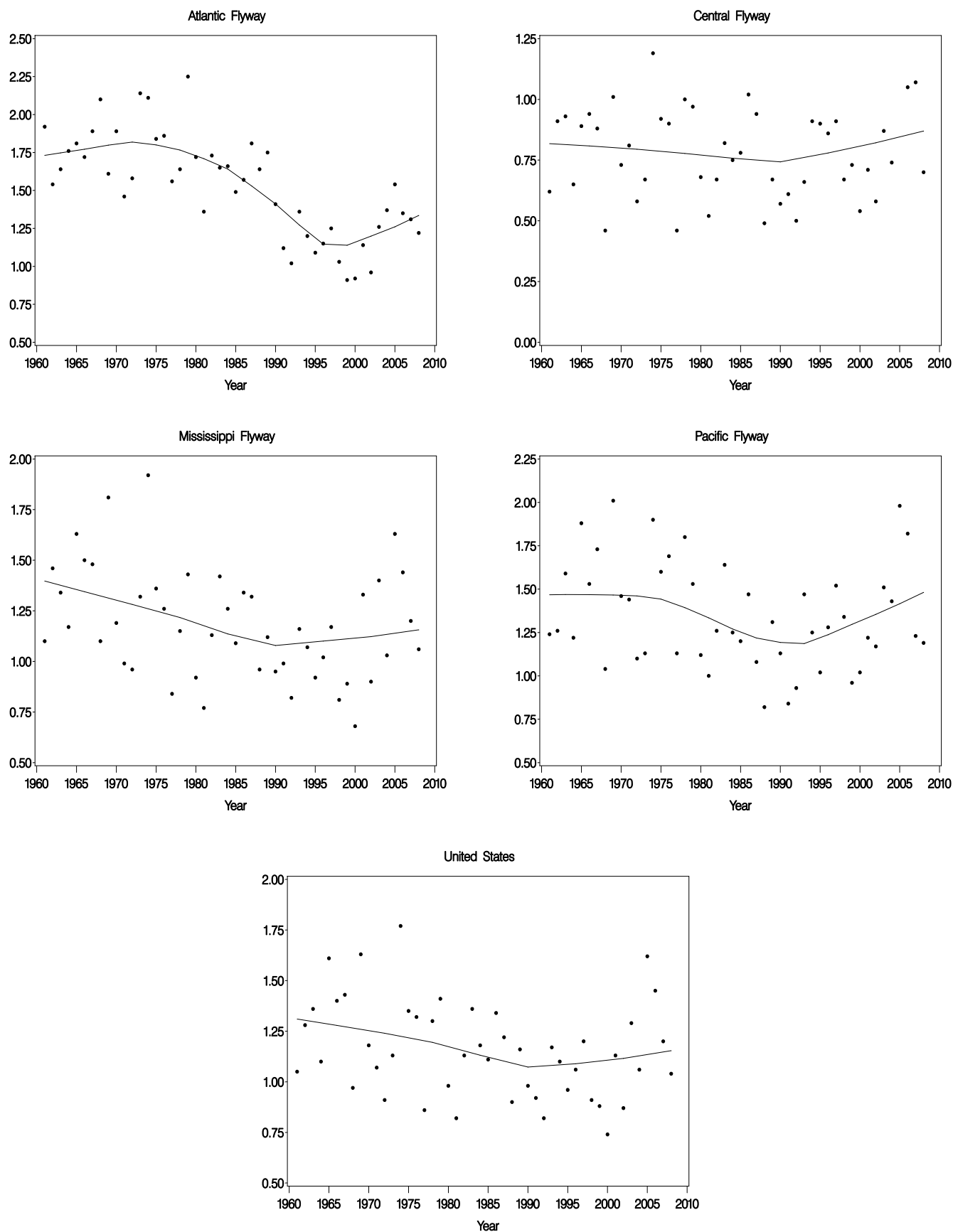


Figure 3. Age ratios of mallards harvested in the United States, 1961-2008.

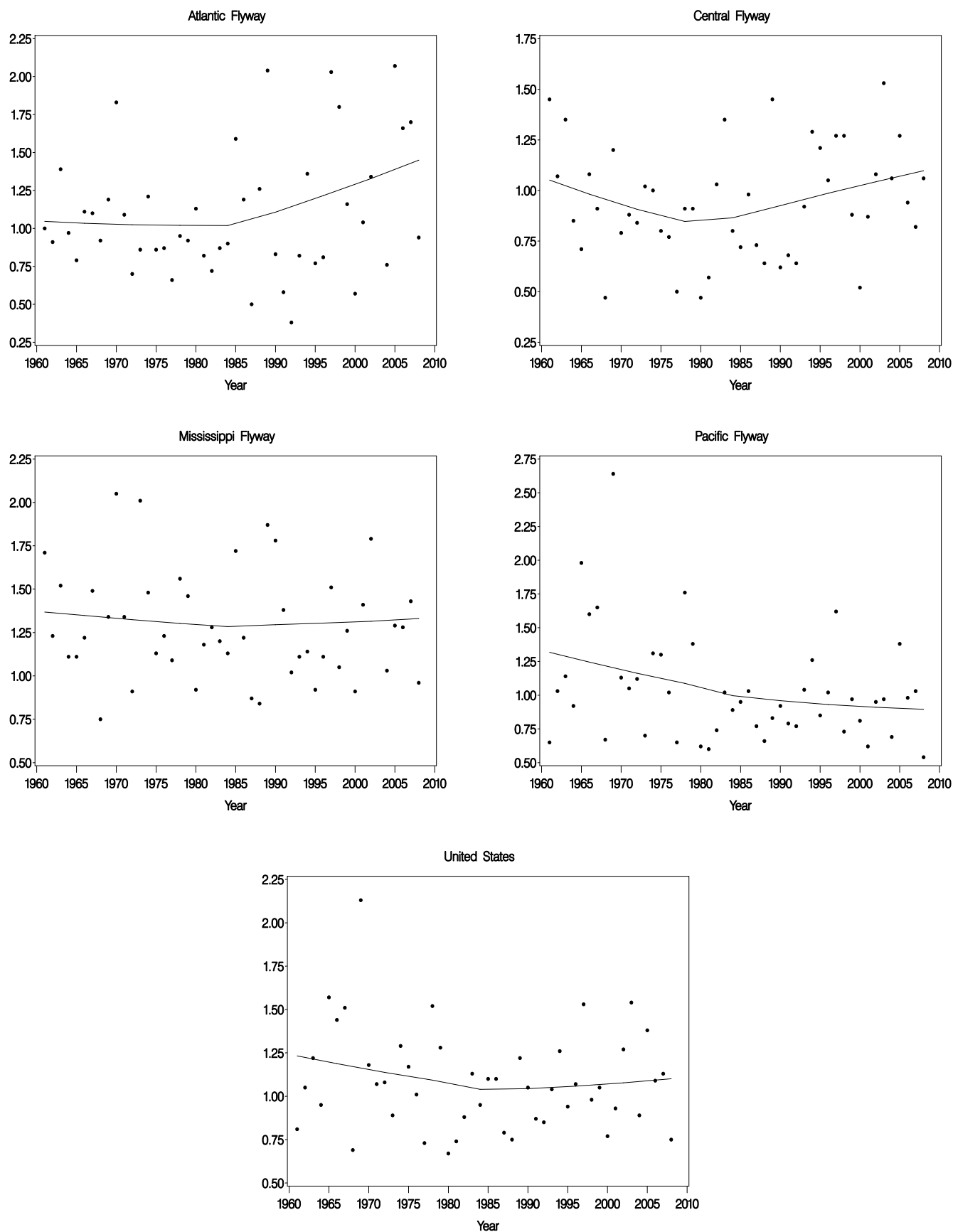


Figure 4. Age ratios of Northern pintails harvested in the United States, 1961-2008.

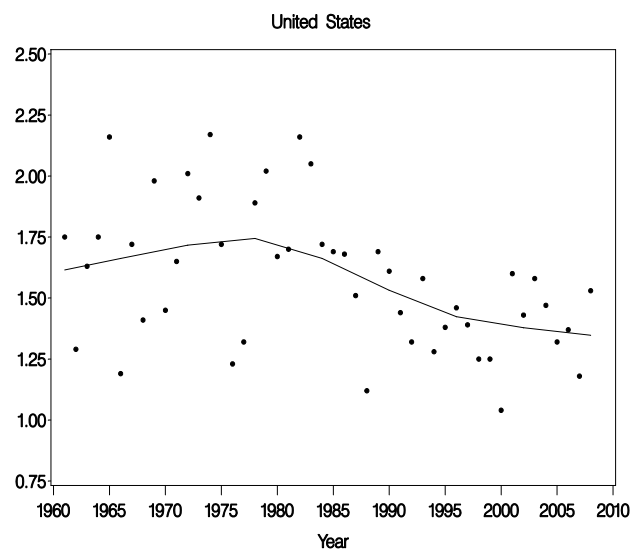
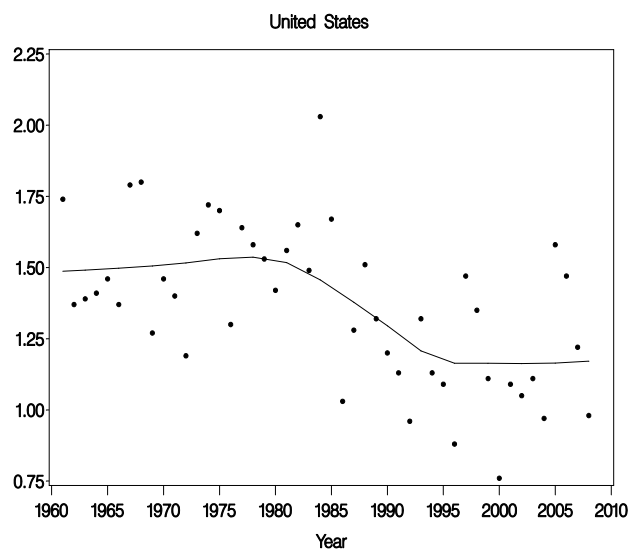
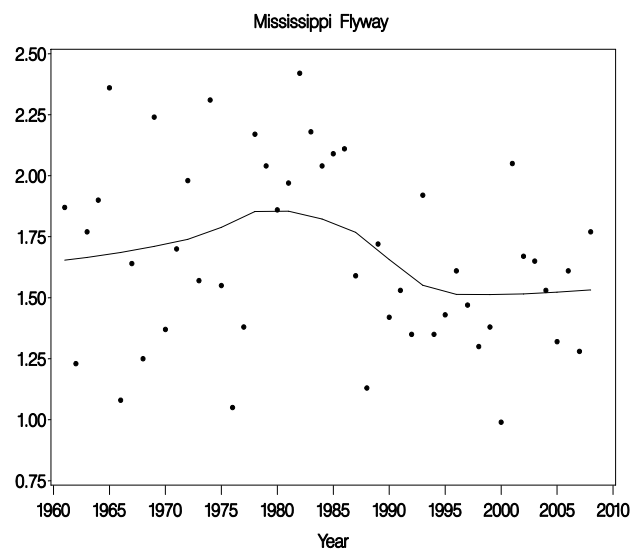
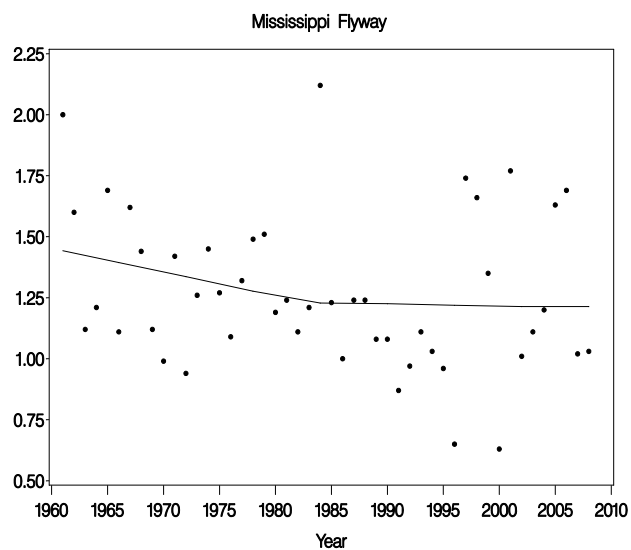
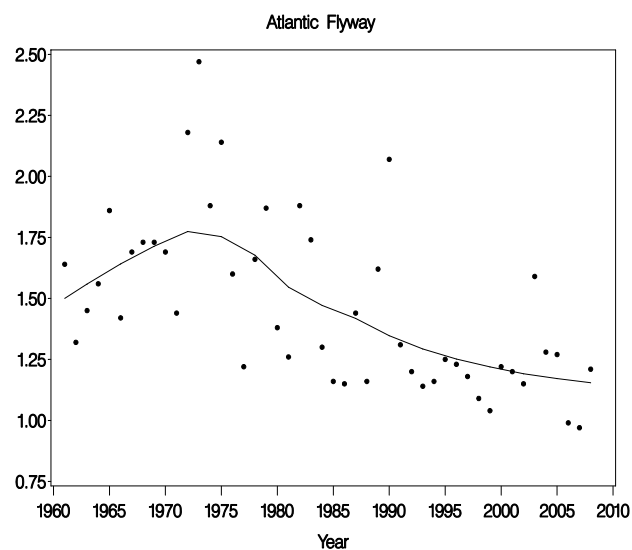
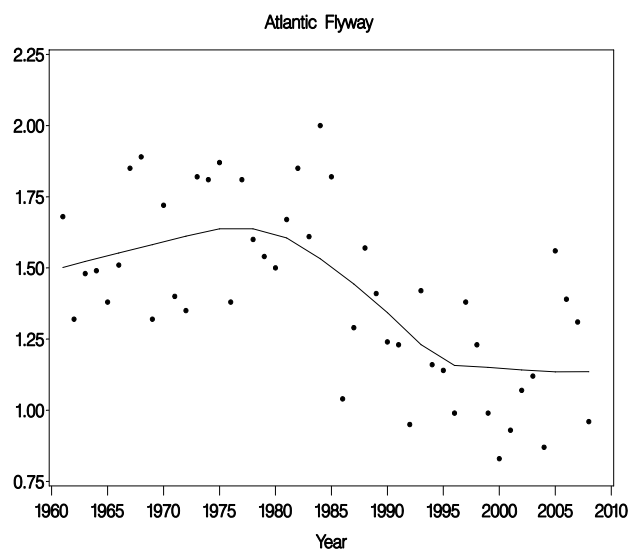


Figure 5. Age ratios of American black ducks (left column) and wood ducks (right column) harvested in the United States, 1961-2008.

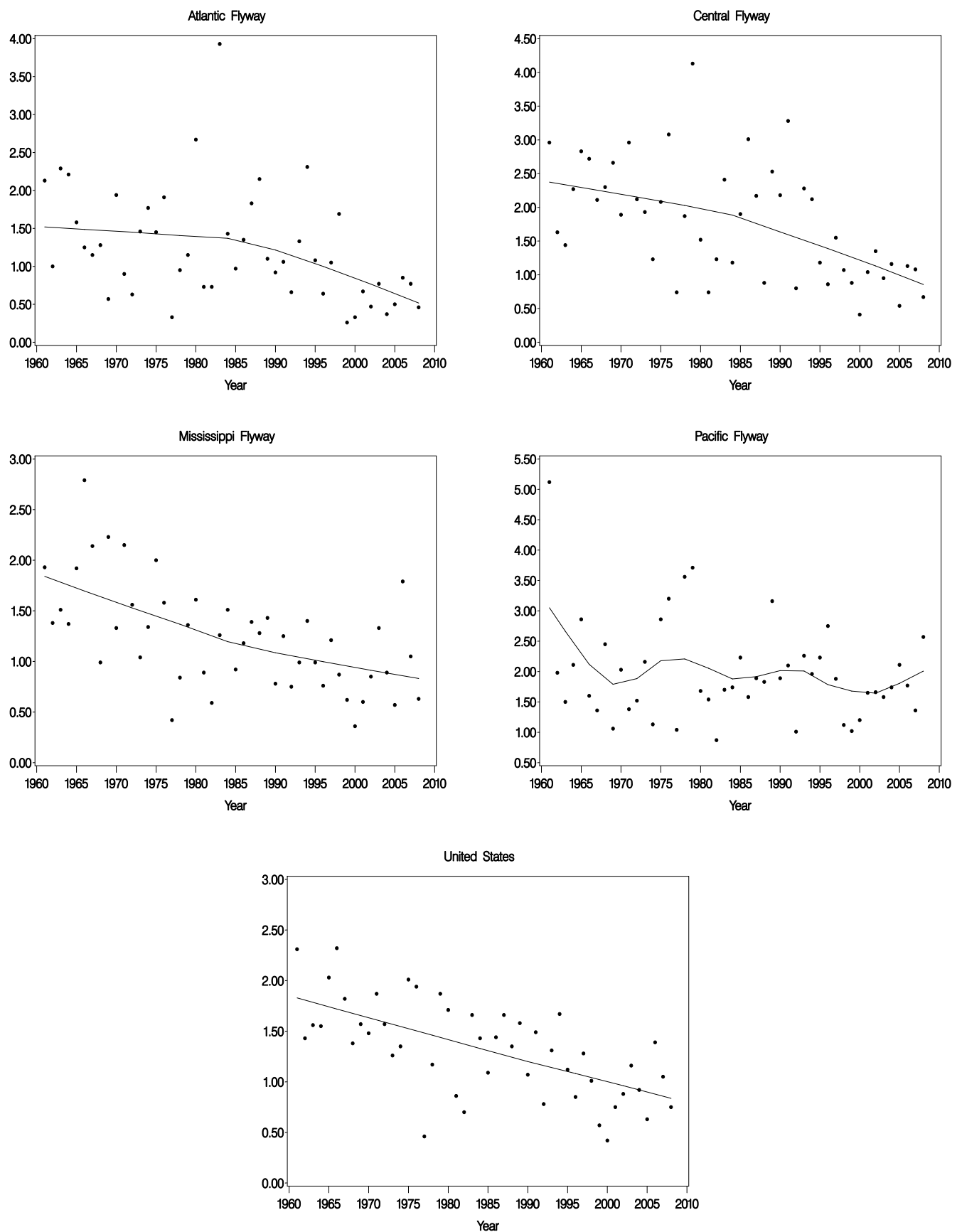


Figure 6. Age ratios of lesser scaup harvested in the United States, 1961-2008.

Table 13. Preliminary estimates of mourning dove harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Mourning Dove Harvest			Active Hunters <sup>2</sup>		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2007	2008		2007	2008	2007	2008	2007	2008
Alabama	829,300 ± 11%	877,400 ± 15%		48,500 ± 8%	42,300 ± 9%	127,500 ± 12%	113,500 ± 12%	17.1 ± 14%	20.7 ± 17%
Delaware	50,900 ± 22%	33,800 ± 35%		2,600 ± 20%	2,000 ± 29%	8,100 ± 20%	5,700 ± 34%	19.4 ± 30%	16.7 ± 45%
Florida	372,600 ± 24%	516,500 ± 24%		21,600 ± 18%	20,300 ± 16%	66,000 ± 24%	94,800 ± 23%	17.3 ± 29%	25.4 ± 29%
Georgia	1,107,500 ± 32%	718,700 ± 22%		37,900 ± 16%	36,100 ± 15%	145,600 ± 26%	102,300 ± 19%	29.2 ± 36%	19.9 ± 27%
Illinois	912,300 ± 16%	683,100 ± 21%		41,400 ± 10%	31,600 ± 12%	137,200 ± 15%	97,000 ± 18%	22.0 ± 19%	21.6 ± 24%
Indiana	258,400 ± 17%	255,700 ± 16%		15,000 ± 26%	14,300 ± 17%	46,000 ± 23%	38,500 ± 17%	17.2 ± 31%	17.9 ± 23%
Kentucky	278,100 ± 41%	369,400 ± 18%		10,600 ± 38%	18,700 ± 21%	34,100 ± 48%	43,700 ± 17%	26.2 ± 56%	19.8 ± 28%
Louisiana	412,900 ± 29%	188,200 ± 38%		24,600 ± 23%	17,200 ± 26%	63,700 ± 25%	38,400 ± 31%	16.8 ± 37%	11.0 ± 46%
Maryland	212,900 ± 26%	151,800 ± 26%		11,800 ± 20%	9,300 ± 19%	36,600 ± 24%	28,400 ± 25%	18.0 ± 33%	16.3 ± 32%
Mississippi	612,000 ± 21%	452,400 ± 20%		30,100 ± 12%	17,300 ± 11%	82,000 ± 18%	53,800 ± 18%	20.4 ± 24%	26.1 ± 23%
North Carolina	854,000 ± 24%	757,900 ± 18%		50,900 ± 16%	43,800 ± 15%	144,800 ± 22%	112,900 ± 18%	16.8 ± 29%	17.3 ± 24%
Ohio	307,700 ± 35%	205,900 ± 28%		17,500 ± 21%	13,500 ± 21%	60,600 ± 33%	61,600 ± 32%	17.6 ± 40%	15.3 ± 35%
Pennsylvania	509,100 ± 27%	340,900 ± 19%		37,500 ± 17%	30,700 ± 19%	159,000 ± 20%	129,900 ± 24%	13.6 ± 32%	11.1 ± 26%
Rhode Island	2,000 ± 55%	4,400 ± 108%		300 ± 66%	300 ± 61%	1,100 ± 71%	2,000 ± 78%	8.0 ± 86%	13.4 ± 124%
South Carolina	865,900 ± 18%	844,500 ± 17%		43,400 ± 12%	39,900 ± 12%	139,400 ± 16%	140,900 ± 19%	20.0 ± 21%	21.2 ± 21%
Tennessee	682,700 ± 32%	798,200 ± 38%		33,000 ± 19%	37,500 ± 16%	85,500 ± 24%	103,000 ± 30%	20.7 ± 37%	21.3 ± 41%
Virginia	418,100 ± 21%	333,600 ± 27%		26,500 ± 11%	17,300 ± 20%	78,600 ± 18%	59,000 ± 23%	15.8 ± 24%	19.3 ± 33%
West Virginia	20,200 ± 32%	16,900 ± 29%		1,800 ± 16%	1,400 ± 20%	4,300 ± 29%	3,700 ± 28%	11.0 ± 36%	12.0 ± 35%
Wisconsin	202,000 ± 38%	122,300 ± 37%		13,600 ± 24%	10,500 ± 26%	61,600 ± 29%	40,600 ± 31%	14.9 ± 45%	11.6 ± 45%
Eastern Unit Total	8,908,400 ± 7%	7,671,800 ± 6%		468,600	404,000	1,481,697 ± 6%	1,269,462 ± 6%		
Arkansas	791,700 ± 24%	422,000 ± 23%		37,000 ± 16%	23,300 ± 18%	115,900 ± 23%	76,600 ± 33%	21.4 ± 29%	18.1 ± 29%
Colorado	315,000 ± 14%	288,400 ± 19%		21,800 ± 11%	23,200 ± 12%	57,800 ± 14%	60,400 ± 18%	14.5 ± 17%	12.4 ± 23%
Kansas	725,100 ± 13%	443,700 ± 15%		36,300 ± 8%	26,800 ± 11%	119,100 ± 11%	78,500 ± 15%	20.0 ± 16%	16.6 ± 19%
Minnesota	67,400 ± 52%	83,500 ± 48%		7,700 ± 35%	11,300 ± 28%	27,600 ± 49%	34,900 ± 42%	8.7 ± 62%	7.4 ± 55%
Missouri	603,300 ± 15%	467,800 ± 16%		42,600 ± 8%	34,300 ± 9%	124,400 ± 13%	93,400 ± 14%	14.2 ± 17%	13.7 ± 19%
Montana	20,900 ± 43%	18,400 ± 51%		1,700 ± 31%	2,100 ± 45%	4,000 ± 34%	3,700 ± 44%	12.3 ± 53%	8.8 ± 68%
Nebraska	319,600 ± 18%	238,600 ± 49%		17,000 ± 12%	13,600 ± 33%	55,300 ± 16%	48,800 ± 52%	18.8 ± 22%	17.6 ± 59%
New Mexico	198,700 ± 25%	138,100 ± 30%		8,600 ± 18%	6,300 ± 18%	40,100 ± 33%	26,200 ± 29%	23.1 ± 31%	22.0 ± 35%
North Dakota	48,700 ± 27%	26,400 ± 31%		3,200 ± 27%	2,700 ± 30%	9,900 ± 26%	9,200 ± 44%	15.4 ± 38%	9.6 ± 43%
Oklahoma	480,000 ± 24%	361,200 ± 18%		24,600 ± 14%	19,300 ± 12%	73,100 ± 19%	57,800 ± 17%	19.5 ± 27%	18.7 ± 22%
South Dakota	104,000 ± 30%	152,100 ± 30%		6,000 ± 20%	7,300 ± 18%	18,200 ± 25%	27,500 ± 34%	17.2 ± 36%	20.9 ± 35%
Texas	5,463,300 ± 14%	4,849,600 ± 14%		275,200 ± 10%	271,300 ± 10%	1,149,600 ± 13%	974,100 ± 13%	19.9 ± 17%	17.9 ± 18%
Wyoming	42,600 ± 27%	30,100 ± 36%		4,000 ± 20%	2,500 ± 25%	8,800 ± 24%	5,900 ± 33%	10.6 ± 33%	11.9 ± 44%
Central Unit Total	9,180,200 ± 9%	7,520,000 ± 10%		485,800	443,900	1,803,800 ± 9%	1,497,000 ± 9%		
Arizona	792,800 ± 11%	726,600 ± 12%		39,500 ± 8%	34,000 ± 10%	125,500 ± 10%	118,000 ± 13%	20.0 ± 14%	21.4 ± 16%
California	1,162,100 ± 11%	1,113,700 ± 12%		63,800 ± 6%	72,700 ± 7%	201,100 ± 10%	207,200 ± 10%	18.2 ± 12%	15.3 ± 14%
Idaho	192,300 ± 35%	127,400 ± 24%		22,800 ± 21%	11,800 ± 19%	68,500 ± 36%	33,600 ± 25%	8.4 ± 41%	10.8 ± 30%
Nevada	38,500 ± 43%	45,000 ± 25%		2,800 ± 26%	4,900 ± 15%	9,600 ± 42%	12,200 ± 26%	13.8 ± 50%	9.1 ± 29%
Oregon	96,900 ± 55%	45,500 ± 35%		6,800 ± 49%	5,800 ± 22%	27,600 ± 60%	14,600 ± 28%	14.2 ± 74%	7.9 ± 42%
Utah	90,000 ± 20%	74,100 ± 38%		14,200 ± 12%	9,600 ± 28%	36,400 ± 24%	22,100 ± 33%	6.4 ± 23%	7.7 ± 48%
Washington	88,900 ± 19%	78,500 ± 31%		7,400 ± 18%	7,300 ± 23%	18,500 ± 21%	18,500 ± 31%	11.9 ± 26%	10.8 ± 38%
Western Unit Total	2,461,500 ± 7%	2,210,700 ± 8%		157,400	146,100	487,200 ± 8%	426,200 ± 7%		
U.S. Total	20,550,000 ± 5%	17,402,400 ± 5%		1,111,800	994,100	3,772,697 ± 5%	3,192,662 ± 5%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.



Table 14. Preliminary estimates of white-winged dove harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	White-winged Dove Harvest		Active Hunters <sup>2</sup>		White-winged Dove Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Alabama	10,100 ± 75%	8,500 ± 58%	2,900 ± 43%	2,700 ± 42%	9,900 ± 70%	6,400 ± 51%	3.5 ± 86%	3.1 ± 71%
Florida	29,100 ± 44%	46,000 ± 48%	4,100 ± 42%	4,200 ± 36%	15,900 ± 63%	19,600 ± 45%	7.1 ± 61%	10.8 ± 60%
Kentucky	200 ± 196%	1,600 ± 98%	300 ± 146%	700 ± 85%	800 ± 153%	1,000 ± 93%	0.7 ± 244%	2.4 ± 130%
Louisiana	11,800 ± 81%	1,800 ± 99%	2,700 ± 75%	1,600 ± 89%	9,900 ± 79%	3,200 ± 109%	4.4 ± 110%	1.1 ± 133%
Mississippi	2,100 ± 111%	2,200 ± 81%	1,900 ± 74%	700 ± 73%	3,600 ± 82%	2,100 ± 79%	1.1 ± 134%	3.0 ± 109%
Eastern Unit Total	53,400 ± 33%	60,000 ± 38%	9,000	10,000	40,000 ± 37%	32,200 ± 31%		
Colorado	3,300 ± 86%	4,800 ± 47%	2,300 ± 40%	3,300 ± 38%	19,700 ± 114%	9,100 ± 46%	1.4 ± 95%	1.5 ± 60%
Kansas	8,800 ± 66%	1,300 ± 88%	1,800 ± 55%	1,300 ± 76%	6,200 ± 53%	3,400 ± 71%	4.9 ± 86%	1.0 ± 116%
Missouri	2,200 ± 106%	2,700 ± 93%	1,600 ± 61%	1,900 ± 56%	4,100 ± 61%	4,300 ± 61%	1.4 ± 123%	1.4 ± 109%
Nebraska	900 ± 101%	200 ± 139%	200 ± 64%	100 ± 139%	1,000 ± 70%	300 ± 139%	3.6 ± 119%	2.0 ± 196%
New Mexico	64,000 ± 39%	49,100 ± 44%	5,000 ± 27%	3,200 ± 29%	26,400 ± 49%	13,700 ± 35%	12.7 ± 48%	15.5 ± 53%
Oklahoma	17,100 ± 106%	5,200 ± 74%	2,900 ± 55%	2,100 ± 46%	11,200 ± 71%	8,500 ± 72%	5.9 ± 119%	2.5 ± 87%
Texas	1,522,100 ± 21%	1,314,900 ± 19%	133,200 ± 16%	134,900 ± 16%	519,500 ± 18%	468,200 ± 18%	11.4 ± 26%	9.7 ± 25%
Central Unit Total	1,618,400 ± 20%	1,378,200 ± 18%	147,100	146,800	588,000 ± 17%	507,500 ± 16%		
Arizona	127,600 ± 25%	95,300 ± 25%	23,200 ± 14%	19,800 ± 16%	68,700 ± 14%	82,400 ± 59%	5.5 ± 28%	4.8 ± 30%
California	67,900 ± 40%	83,300 ± 33%	10,000 ± 20%	15,100 ± 21%	30,400 ± 26%	40,000 ± 25%	6.8 ± 45%	5.5 ± 39%
Nevada	0	<50 ± 106%	100 ± 73%	400 ± 98%	200 ± 86%	500 ± 85%		
Utah	800 ± 148%	1,200 ± 110%	1,400 ± 52%	600 ± 129%	2,900 ± 57%	1,600 ± 111%	0.6 ± 157%	2.1 ± 169%
Western Unit Total	196,300 ± 21%	179,900 ± 20%	34,700	36,000	102,100 ± 12%	124,500 ± 40%		
U.S. Total	1,868,100 ± 17%	1,618,100 ± 16%	190,900	192,700	730,200 ± 14%	664,100 ± 15%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 15. Preliminary estimates of band-tailed pigeon harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Band-tailed Pigeon Harvest		Active Hunters <sup>2</sup>		Band-tailed Pigeon Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Arizona	1,000 ± 101%	1,600 ± 122%	2,100 ± 43%	1,300 ± 55%	5,000 ± 57%	3,300 ± 66%	0.5 ± 110%	1.3 ± 133%
Colorado	900 ± 102%	2,500 ± 83%	1,400 ± 45%	2,300 ± 40%	3,800 ± 56%	6,100 ± 45%	0.6 ± 112%	1.1 ± 92%
New Mexico	2,800 ± 113%	600 ± 95%	800 ± 47%	600 ± 52%	3,600 ± 62%	2,100 ± 76%	3.5 ± 123%	1.1 ± 108%
Utah	200 ± 195%	0	300 ± 86%	300 ± 143%	400 ± 73%	700 ± 139%	0.6 ± 213%	0
Four Corners Total	4,800 ± 71%	4,700 ± 62%	4,600	4,500	12,800 ± 33%	12,200 ± 33%		
California	9,700 ± 39%	27,500 ± 35%	4,900 ± 33%	10,500 ± 24%	10,600 ± 37%	29,300 ± 34%	2.0 ± 51%	2.6 ± 42%
Oregon	1,400 ± 74%	500 ± 18%	700 ± 113%	200 ± 8%	1,200 ± 69%	500 ± 13%	2.1 ± 135%	3.2 ± 20%
Washington	1,700 ± 61%	2,100 ± 87%	900 ± 44%	600 ± 61%	1,800 ± 60%	1,500 ± 70%	1.9 ± 75%	3.2 ± 106%
Pacific Coast Total	12,700 ± 32%	30,200 ± 32%	6,400	11,300	13,500 ± 30%	31,300 ± 32%		
U.S. Total	17,600 ± 30%	34,900 ± 29%	11,000	15,800	26,300 ± 22%	43,500 ± 25%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 16. Preliminary estimates of woodcock harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Woodcock Harvest		Active Hunters <sup>2</sup>		Woodcock Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Connecticut	1,700 ± 76%	1,600 ± 88%	800 ± 45%	900 ± 36%	3,200 ± 44%	3,600 ± 49%	2.1 ± 88%	1.8 ± 95%
Delaware	1,600 ± 134%	400 ± 73%	400 ± 75%	400 ± 113%	1,700 ± 92%	1,300 ± 137%	3.9 ± 154%	1.2 ± 135%
Florida	5,600 ± 165%	7,900 ± 135%	2,900 ± 107%	2,400 ± 125%	4,800 ± 98%	14,600 ± 158%	1.9 ± 197%	3.4 ± 184%
Georgia	7,800 ± 196%	10,000 ± 171%	1,600 ± 196%	3,100 ± 129%	6,200 ± 196%	7,000 ± 129%	5.0 ± 277%	3.2 ± 214%
Maine	13,700 ± 43%	18,800 ± 49%	5,200 ± 36%	5,400 ± 27%	22,600 ± 41%	26,100 ± 33%	2.7 ± 56%	3.5 ± 55%
Maryland	400 ± 54%	2,400 ± 100%	1,000 ± 121%	1,800 ± 81%	2,700 ± 130%	9,300 ± 119%	0.4 ± 132%	1.4 ± 129%
Massachusetts	2,100 ± 38%	2,300 ± 36%	900 ± 27%	1,200 ± 26%	5,000 ± 34%	5,600 ± 32%	2.2 ± 47%	2.0 ± 44%
New Hampshire	5,400 ± 28%	5,600 ± 24%	2,300 ± 25%	1,600 ± 30%	11,500 ± 37%	9,400 ± 30%	2.3 ± 37%	3.4 ± 38%
New Jersey	1,600 ± 57%	1,600 ± 73%	800 ± 58%	500 ± 78%	3,400 ± 56%	2,100 ± 71%	1.9 ± 81%	3.2 ± 107%
New York	9,800 ± 31%	10,000 ± 35%	5,000 ± 24%	4,500 ± 27%	23,100 ± 27%	18,200 ± 26%	2.0 ± 39%	2.2 ± 45%
North Carolina	7,500 ± 67%	9,100 ± 131%	2,400 ± 90%	2,400 ± 109%	11,200 ± 84%	7,900 ± 94%	3.1 ± 112%	3.8 ± 171%
Pennsylvania	11,100 ± 59%	19,200 ± 71%	10,600 ± 31%	9,000 ± 31%	41,100 ± 44%	35,000 ± 35%	1.1 ± 67%	2.1 ± 78%
Rhode Island	200 ± 193%	100 ± 92%	100 ± 135%	100 ± 90%	100 ± 152%	600 ± 134%	2.5 ± 236%	1.5 ± 129%
South Carolina	1,200 ± 89%	7,300 ± 112%	700 ± 141%	3,600 ± 69%	1,500 ± 70%	15,600 ± 101%	1.7 ± 167%	2.1 ± 132%
Vermont	2,000 ± 28%	6,300 ± 97%	700 ± 28%	1,400 ± 33%	3,000 ± 31%	9,200 ± 58%	2.9 ± 40%	4.5 ± 103%
Virginia	2,600 ± 117%	1,600 ± 80%	500 ± 98%	1,400 ± 111%	2,400 ± 86%	2,700 ± 96%	5.1 ± 153%	1.1 ± 137%
West Virginia	1,700 ± 87%	500 ± 90%	400 ± 53%	500 ± 72%	1,500 ± 54%	1,000 ± 71%	4.2 ± 102%	1.0 ± 115%
Eastern Unit Total	75,900 ± 28%	104,700 ± 29%	36,300	40,100	145,000 ± 19%	169,000 ± 22%		
Alabama	700 ± 98%	2,300 ± 159%	100 ± 57%	1,000 ± 178%	700 ± 72%	3,100 ± 175%	7.0 ± 113%	2.3 ± 239%
Arkansas	10,500 ± 116%	3,100 ± 190%	2,600 ± 121%	5,100 ± 86%	9,300 ± 105%	24,200 ± 108%	4.0 ± 167%	0.6 ± 209%
Illinois	3,800 ± 149%	4,300 ± 100%	3,100 ± 73%	2,100 ± 90%	7,600 ± 72%	6,100 ± 103%	1.2 ± 166%	2.0 ± 135%
Indiana	1,200 ± 53%	800 ± 31%	1,800 ± 71%	900 ± 69%	3,300 ± 58%	2,400 ± 63%	0.7 ± 89%	0.9 ± 76%
Iowa	100 ± 56%	1,600 ± 93%	1,100 ± 89%	1,600 ± 74%	4,600 ± 117%	4,300 ± 99%	0.1 ± 105%	1.0 ± 119%
Kansas	<50 ± 174%	2,000 ± 196%	600 ± 137%	600 ± 138%	3,100 ± 173%	2,800 ± 161%	<0.1 ± 221%	3.5 ± 239%
Kentucky	300 ± 105%	1,500 ± 159%	800 ± 164%	2,500 ± 130%	3,400 ± 127%	9,400 ± 153%	0.3 ± 195%	0.6 ± 205%
Louisiana	21,700 ± 90%	13,300 ± 101%	4,800 ± 62%	6,000 ± 55%	17,200 ± 73%	16,200 ± 65%	4.6 ± 110%	2.2 ± 115%
Michigan	86,800 ± 17%	78,900 ± 17%	28,400 ± 13%	34,600 ± 13%	138,900 ± 15%	156,000 ± 17%	3.1 ± 21%	2.3 ± 21%
Minnesota	34,400 ± 38%	19,900 ± 67%	15,300 ± 29%	8,700 ± 37%	62,800 ± 36%	37,900 ± 43%	2.2 ± 48%	2.3 ± 76%
Mississippi	600 ± 75%	400 ± 71%	600 ± 163%	600 ± 160%	1,800 ± 155%	1,800 ± 146%	1.0 ± 179%	0.7 ± 175%
Missouri	900 ± 55%	2,600 ± 157%	200 ± 30%	2,800 ± 82%	900 ± 45%	7,300 ± 99%	4.5 ± 62%	1.0 ± 177%
Nebraska	200 ± 122%	0	500 ± 168%	900 ± 196%	13,800 ± 186%	4,400 ± 196%	0.3 ± 208%	0
Ohio	2,600 ± 68%	2,300 ± 68%	2,600 ± 73%	2,900 ± 69%	9,300 ± 72%	10,300 ± 70%	1.0 ± 100%	0.8 ± 98%
Oklahoma	0	<50 ± 177%	0	700 ± 189%	0	8,400 ± 194%	0	<0.1 ± 259%
Tennessee	800 ± 108%	600 ± 135%	100 ± 95%	100 ± 95%	400 ± 105%	400 ± 130%	6.0 ± 144%	6.3 ± 165%
Texas	1,500 ± 196%	4,700 ± 196%	600 ± 129%	4,700 ± 196%	2,100 ± 144%	9,300 ± 196%	2.5 ± 235%	1.0 ± 277%
Wisconsin	48,000 ± 31%	36,000 ± 27%	17,300 ± 23%	14,200 ± 24%	79,100 ± 31%	65,400 ± 35%	2.8 ± 39%	2.5 ± 36%
Central Unit Total	214,200 ± 16%	174,300 ± 16%	80,600	89,900	358,500 ± 14%	369,800 ± 16%		
U.S. Total	290,000 ± 14%	279,000 ± 15%	116,900	130,000	503,500 ± 12%	538,800 ± 13%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 17. Preliminary estimates of snipe harvest and hunter activity during the 2007 and 2008 hunting seasons <sup>1</sup>.

State and Management Unit	Snipe Harvest		Active Hunters <sup>2</sup>		Snipe Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Connecticut	<50 ± 148%	<50 ± 107%	<50 ± 96%	100 ± 179%	100 ± 108%	300 ± 191%	1.7 ± 176%	0.1 ± 208%
Delaware	0	0	<50 ± 118%	0	<50 ± 125%	0	0	0.0
Florida	38,900 ± 61%	35,600 ± 59%	3,500 ± 61%	4,800 ± 53%	10,500 ± 54%	14,900 ± 63%	11.1 ± 87%	7.4 ± 79%
Georgia	200 ± 194%	0	100 ± 194%	100 ± 195%	300 ± 194%	100 ± 195%	4.0 ± 275%	0.0
Maine	0	0	0	0	0	0	0	0.0
Maryland	0	0	0	0	0	0	0	0.0
Massachusetts	100 ± 142%	100 ± 136%	100 ± 152%	100 ± 96%	100 ± 152%	800 ± 144%	1.1 ± 208%	0.9 ± 166%
New Hampshire	100 ± 119%	100 ± 167%	<50 ± 81%	100 ± 129%	100 ± 98%	700 ± 140%	9.5 ± 143%	1.1 ± 211%
New Jersey	400 ± 183%	0	400 ± 128%	0	500 ± 138%	0	1.0 ± 223%	0.0
New York	200 ± 74%	100 ± 111%	300 ± 128%	100 ± 85%	900 ± 98%	300 ± 97%	0.6 ± 148%	0.6 ± 140%
North Carolina	3,500 ± 196%	5,600 ± 172%	2,600 ± 114%	1,200 ± 161%	16,200 ± 122%	3,400 ± 169%	1.4 ± 227%	4.6 ± 235%
Pennsylvania	2,200 ± 182%	<50 ± 135%	1,200 ± 170%	100 ± 110%	10,600 ± 189%	200 ± 122%	1.9 ± 249%	0.7 ± 174%
Rhode Island	<50 ± 181%	0	<50 ± 169%	0	100 ± 133%	0	0.1 ± 248%	0.0
South Carolina	8,600 ± 96%	2,000 ± 94%	1,500 ± 104%	900 ± 121%	5,600 ± 105%	2,100 ± 121%	5.7 ± 141%	2.2 ± 153%
Vermont	400 ± 158%	<50 ± 183%	<50 ± 98%	<50 ± 183%	100 ± 130%	<50 ± 183%	22.7 ± 186%	5.0 ± 258%
Virginia	2,100 ± 117%	2,800 ± 124%	600 ± 91%	700 ± 125%	1,700 ± 135%	2,600 ± 127%	3.4 ± 149%	3.9 ± 176%
West Virginia	100 ± 136%	100 ± 192%	100 ± 110%	100 ± 136%	700 ± 126%	100 ± 143%	0.7 ± 175%	1.0 ± 236%
Atlantic Flyway Total	56,800 ± 47%	46,500 ± 50%	10,400	8,300	47,600 ± 62%	25,300 ± 47%		
Alabama	500 ± 137%	1,600 ± 81%	100 ± 76%	100 ± 52%	100 ± 91%	600 ± 62%	6.2 ± 156%	13.8 ± 97%
Arkansas	3,600 ± 196%	0	1,200 ± 196%	1,300 ± 138%	1,200 ± 196%	7,900 ± 166%	3.0 ± 277%	0.0
Illinois	4,400 ± 155%	200 ± 153%	1,500 ± 129%	100 ± 110%	4,900 ± 142%	300 ± 143%	3.0 ± 201%	1.3 ± 188%
Indiana	100 ± 87%	200 ± 70%	700 ± 128%	100 ± 41%	2,000 ± 136%	200 ± 59%	0.2 ± 154%	2.9 ± 81%
Iowa	300 ± 66%	100 ± 63%	100 ± 44%	700 ± 121%	200 ± 49%	2,000 ± 131%	3.6 ± 79%	0.2 ± 137%
Kentucky	0	0	<50 ± 190%	1,200 ± 196%	<50 ± 190%	1,200 ± 196%	0	0.0
Louisiana	16,800 ± 81%	7,700 ± 135%	2,200 ± 95%	1,300 ± 124%	5,000 ± 78%	3,100 ± 110%	7.6 ± 125%	6.1 ± 183%
Michigan	500 ± 160%	1,200 ± 114%	300 ± 111%	1,200 ± 152%	2,500 ± 159%	3,500 ± 152%	1.7 ± 195%	1.0 ± 190%
Minnesota	1,400 ± 170%	2,400 ± 124%	1,200 ± 79%	2,200 ± 72%	5,700 ± 94%	11,100 ± 97%	1.2 ± 187%	1.1 ± 144%
Mississippi	0	1,500 ± 196%	0	200 ± 196%	0	700 ± 196%	0	6.0 ± 277%
Missouri	4,500 ± 139%	3,800 ± 117%	1,100 ± 132%	1,000 ± 119%	1,100 ± 121%	9,800 ± 166%	4.3 ± 191%	4.0 ± 167%
Ohio	100 ± 195%	1,200 ± 196%	100 ± 137%	2,300 ± 137%	100 ± 137%	17,300 ± 145%	0.5 ± 238%	0.5 ± 239%
Tennessee	0	0	0	100 ± 194%	0	100 ± 194%	0	0.0
Wisconsin	3,600 ± 127%	500 ± 80%	4,500 ± 76%	300 ± 44%	12,500 ± 85%	1,800 ± 64%	0.8 ± 148%	1.7 ± 91%
Mississippi Flyway Total	35,800 ± 52%	20,200 ± 61%	12,900	11,900	35,500 ± 43%	59,600 ± 59%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 17 (continued). Preliminary estimates of snipe harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Snipe Harvest		Active Hunters <sup>2</sup>		Snipe Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Colorado	100 ± 194%	7,000 ± 123%	100 ± 194%	600 ± 116%	200 ± 194%	2,100 ± 111%	2.0 ± 275%	11.5 ± 169%
Kansas	0	0	0	0	0	0	0	0.0
Nebraska	900 ± 156%	900 ± 148%	300 ± 96%	200 ± 137%	500 ± 107%	600 ± 145%	3.5 ± 183%	5.0 ± 201%
New Mexico	<50 ± 174%	<50 ± 178%	<50 ± 174%	<50 ± 178%	<50 ± 174%	<50 ± 178%	1.0 ± 246%	8.0 ± 251%
North Dakota	200 ± 52%	300 ± 59%	500 ± 166%	100 ± 37%	2,600 ± 176%	200 ± 44%	0.4 ± 174%	4.4 ± 70%
Oklahoma	6,500 ± 106%	2,500 ± 178%	500 ± 96%	500 ± 178%	3,400 ± 132%	1,300 ± 142%	12.5 ± 143%	5.0 ± 252%
South Dakota	200 ± 170%	200 ± 110%	200 ± 172%	<50 ± 65%	300 ± 150%	100 ± 86%	1.0 ± 241%	10.2 ± 128%
Texas	4,000 ± 88%	700 ± 92%	300 ± 49%	2,700 ± 187%	1,200 ± 64%	2,800 ± 178%	12.0 ± 100%	0.3 ± 208%
Wyoming	200 ± 182%	300 ± 133%	100 ± 172%	100 ± 130%	100 ± 136%	200 ± 109%	2.8 ± 250%	1.8 ± 186%
Central Flyway Total	12,200 ± 64%	11,900 ± 83%	1,900	4,200	8,300 ± 79%	7,300 ± 81%		
Arizona	100 ± 187%	0	<50 ± 187%	0	<50 ± 187%	0	5.0 ± 264%	0.0
California	7,800 ± 74%	9,600 ± 94%	2,700 ± 71%	1,300 ± 95%	5,800 ± 72%	5,500 ± 112%	2.9 ± 102%	7.5 ± 134%
Idaho	0	<50 ± 193%	0	<50 ± 193%	0	<50 ± 193%	0	1.0 ± 273%
Montana	4,900 ± 107%	3,900 ± 193%	1,100 ± 73%	600 ± 192%	3,200 ± 72%	1,100 ± 191%	4.5 ± 130%	7.0 ± 273%
Nevada	200 ± 122%	700 ± 181%	100 ± 169%	100 ± 163%	700 ± 176%	100 ± 170%	1.9 ± 208%	9.0 ± 244%
Oregon	200 ± 195%	1,400 ± 95%	200 ± 195%	700 ± 110%	1,600 ± 195%	3,700 ± 155%	1.0 ± 276%	2.0 ± 146%
Utah	800 ± 122%	0	300 ± 86%	100 ± 137%	700 ± 120%	500 ± 141%	2.6 ± 149%	0.0
Washington	300 ± 52%	100 ± 122%	100 ± 37%	<50 ± 61%	300 ± 47%	100 ± 86%	2.8 ± 64%	3.3 ± 137%
Pacific Flyway Total	14,100 ± 55%	15,900 ± 76%	4,500	2,900	12,400 ± 48%	11,100 ± 79%		
Alaska	600 ± 86%	1,100 ± 114%	100 ± 46%	200 ± 45%	500 ± 60%	700 ± 63%	4.1 ± 98%	5.6 ± 122%
U.S. Total	119,400 ± 29%	95,500 ± 32%	29,800	27,400	104,200 ± 33%	103,900 ± 37%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 18. Preliminary estimates of coot harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Coot Harvest		Active Hunters <sup>2</sup>		Coot Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Connecticut	100 ± 143%	300 ± 145%	200 ± 125%	200 ± 106%	300 ± 114%	2,000 ± 156%	0.7 ± 189%	1.8 ± 180%
Delaware	400 ± 137%	0	100 ± 168%	0	300 ± 174%	0	6.6 ± 217%	0.0
Florida	3,200 ± 107%	8,100 ± 158%	700 ± 134%	700 ± 136%	3,500 ± 121%	1,000 ± 109%	4.4 ± 172%	11.2 ± 208%
Georgia	0	0	0	0	0	0	0	0.0
Maine	200 ± 148%	0	100 ± 136%	500 ± 186%	200 ± 139%	1,000 ± 186%	3.5 ± 201%	0.0
Maryland	<50 ± 188%	100 ± 188%	<50 ± 188%	500 ± 191%	100 ± 188%	1,100 ± 187%	2.0 ± 266%	0.1 ± 268%
Massachusetts	200 ± 152%	<50 ± 139%	100 ± 142%	<50 ± 80%	100 ± 109%	100 ± 95%	2.8 ± 208%	1.3 ± 160%
New Hampshire	300 ± 194%	0	<50 ± 194%	0	1,400 ± 194%	0	6.0 ± 274%	0.0
New Jersey	3,400 ± 137%	0	300 ± 137%	0	1,900 ± 178%	0	10.0 ± 194%	0.0
New York	1,100 ± 90%	1,900 ± 133%	500 ± 113%	600 ± 119%	6,200 ± 137%	1,500 ± 138%	2.0 ± 144%	3.3 ± 179%
North Carolina	500 ± 196%	3,000 ± 196%	200 ± 196%	300 ± 196%	200 ± 196%	2,500 ± 196%	2.0 ± 277%	12.0 ± 277%
Pennsylvania	500 ± 119%	4,600 ± 195%	1,200 ± 170%	1,200 ± 189%	3,500 ± 174%	4,700 ± 190%	0.5 ± 208%	3.9 ± 271%
Rhode Island	100 ± 176%	0	100 ± 136%	0	200 ± 109%	0	2.3 ± 223%	0.0
South Carolina	3,900 ± 148%	2,700 ± 145%	500 ± 188%	1,200 ± 111%	1,200 ± 154%	1,600 ± 118%	8.3 ± 239%	2.3 ± 183%
Vermont	200 ± 179%	0	<50 ± 179%	0	<50 ± 179%	0	33.0 ± 253%	0.0
Virginia	2,500 ± 138%	500 ± 167%	500 ± 100%	100 ± 92%	2,200 ± 119%	500 ± 120%	5.2 ± 170%	5.5 ± 190%
West Virginia	<50 ± 137%	<50 ± 175%	100 ± 127%	<50 ± 175%	500 ± 176%	<50 ± 175%	0.7 ± 187%	4.0 ± 248%
Atlantic Flyway Total	16,700 ± 54%	21,300 ± 82%	4,500	5,300	21,900 ± 57%	16,000 ± 72%		
Alabama	1,100 ± 81%	1,300 ± 76%	100 ± 65%	100 ± 52%	300 ± 72%	600 ± 84%	11.1 ± 104%	11.0 ± 92%
Arkansas	13,900 ± 145%	2,000 ± 196%	2,000 ± 142%	700 ± 196%	4,700 ± 139%	7,900 ± 196%	7.1 ± 203%	3.0 ± 277%
Illinois	2,900 ± 188%	100 ± 194%	700 ± 190%	<50 ± 194%	1,400 ± 190%	<50 ± 194%	4.1 ± 267%	3.0 ± 274%
Indiana	400 ± 46%	2,000 ± 139%	100 ± 31%	600 ± 123%	500 ± 40%	1,400 ± 108%	4.8 ± 56%	3.2 ± 186%
Iowa	9,700 ± 127%	1,000 ± 119%	1,300 ± 90%	1,300 ± 91%	3,400 ± 92%	3,100 ± 95%	7.4 ± 156%	0.8 ± 150%
Kentucky	<50 ± 190%	300 ± 193%	<50 ± 190%	<50 ± 193%	<50 ± 190%	<50 ± 193%	1.0 ± 269%	10.0 ± 273%
Louisiana	71,100 ± 62%	171,500 ± 67%	7,100 ± 53%	5,400 ± 58%	28,700 ± 71%	20,600 ± 66%	9.9 ± 82%	31.7 ± 88%
Michigan	800 ± 133%	5,700 ± 137%	300 ± 111%	1,900 ± 132%	800 ± 118%	2,800 ± 137%	2.7 ± 173%	3.0 ± 190%
Minnesota	5,100 ± 130%	9,700 ± 87%	1,000 ± 87%	2,300 ± 76%	2,700 ± 88%	7,900 ± 109%	5.2 ± 156%	4.3 ± 115%
Mississippi	2,500 ± 185%	4,900 ± 122%	<50 ± 134%	1,400 ± 135%	300 ± 135%	2,900 ± 133%	58.5 ± 228%	3.6 ± 182%
Missouri	3,000 ± 196%	1,800 ± 139%	500 ± 196%	1,000 ± 116%	1,000 ± 196%	9,500 ± 170%	6.0 ± 277%	1.8 ± 181%
Ohio	100 ± 195%	0	100 ± 195%	0	1,600 ± 195%	0	1.0 ± 275%	0.0
Tennessee	1,500 ± 138%	2,000 ± 106%	100 ± 136%	300 ± 94%	300 ± 139%	1,100 ± 123%	12.0 ± 193%	7.8 ± 142%
Wisconsin	3,300 ± 88%	5,600 ± 58%	1,000 ± 135%	2,300 ± 115%	3,500 ± 121%	5,900 ± 101%	3.2 ± 161%	2.5 ± 129%
Mississippi Flyway Total	115,300 ± 44%	207,900 ± 55%	14,400	17,200	49,300 ± 46%	64,100 ± 45%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 18 (continued). Preliminary estimates of coot harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Coot Harvest		Active Hunters <sup>2</sup>		Coot Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Colorado	1,100 ± 146%	1,700 ± 102%	400 ± 125%	800 ± 94%	1,400 ± 145%	2,100 ± 104%	2.5 ± 192%	2.2 ± 139%
Kansas	1,400 ± 134%	300 ± 191%	400 ± 192%	300 ± 191%	400 ± 162%	300 ± 191%	3.8 ± 234%	1.0 ± 271%
Nebraska	1,200 ± 115%	0	500 ± 147%	0	800 ± 117%	0	2.5 ± 187%	0.0
New Mexico	1,800 ± 189%	300 ± 150%	200 ± 180%	300 ± 167%	300 ± 156%	300 ± 147%	7.6 ± 261%	1.1 ± 225%
North Dakota	3,700 ± 127%	700 ± 107%	900 ± 123%	400 ± 170%	3,200 ± 120%	600 ± 136%	4.2 ± 177%	1.6 ± 201%
Oklahoma	5,500 ± 112%	1,700 ± 139%	700 ± 89%	100 ± 57%	1,900 ± 87%	400 ± 84%	7.5 ± 143%	16.0 ± 150%
South Dakota	600 ± 138%	4,200 ± 156%	200 ± 167%	800 ± 105%	700 ± 173%	3,300 ± 143%	2.4 ± 217%	5.5 ± 188%
Texas	8,500 ± 130%	800 ± 80%	5,200 ± 135%	200 ± 76%	5,200 ± 133%	300 ± 84%	1.6 ± 187%	5.2 ± 111%
Wyoming	<50 ± 166%	200 ± 195%	<50 ± 166%	200 ± 111%	<50 ± 166%	200 ± 111%	1.0 ± 234%	1.0 ± 224%
Central Flyway Total	23,800 ± 60%	9,900 ± 73%	8,600	3,100	13,900 ± 61%	7,500 ± 71%		
Arizona	200 ± 158%	0	<50 ± 131%	0	<50 ± 138%	0	9.0 ± 205%	0.0
California	18,700 ± 53%	10,700 ± 72%	1,800 ± 69%	600 ± 27%	5,200 ± 36%	3,500 ± 46%	10.4 ± 87%	16.8 ± 77%
Idaho	2,300 ± 196%	1,200 ± 128%	1,100 ± 196%	800 ± 127%	1,100 ± 196%	800 ± 123%	2.0 ± 277%	1.6 ± 181%
Montana	5,500 ± 166%	100 ± 186%	900 ± 101%	600 ± 192%	3,600 ± 134%	1,700 ± 190%	6.0 ± 195%	0.3 ± 267%
Nevada	200 ± 112%	2,000 ± 171%	<50 ± 92%	100 ± 163%	100 ± 124%	200 ± 138%	16.0 ± 145%	25.8 ± 237%
Oregon	200 ± 195%	3,300 ± 91%	200 ± 195%	900 ± 87%	200 ± 195%	1,300 ± 72%	1.0 ± 276%	3.5 ± 126%
Utah	8,300 ± 97%	9,900 ± 84%	1,500 ± 56%	1,600 ± 67%	8,900 ± 70%	7,700 ± 77%	5.6 ± 112%	6.2 ± 108%
Washington	7,200 ± 138%	9,400 ± 161%	700 ± 127%	1,000 ± 106%	1,700 ± 147%	3,100 ± 113%	10.5 ± 187%	9.7 ± 192%
Pacific Flyway Total	42,500 ± 45%	36,700 ± 53%	6,200	5,600	20,900 ± 42%	18,300 ± 43%		
U.S. Total	198,300 ± 29%	275,900 ± 43%	33,700	31,100	106,000 ± 27%	105,800 ± 31%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 19. Preliminary estimates of gallinule harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Gallinule Harvest		Active Hunters <sup>2</sup>		Gallinule Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Delaware	0	0	0	0	0	0	0	0.0
Florida	0	2,900 ± 151%	0	500 ± 170%	0	500 ± 161%	0	5.9 ± 228%
Georgia	0	0	0	0	0	0	0	0.0
Maine	100 ± 193%	0	<50 ± 193%	0	<50 ± 193%	0	3.0 ± 273%	0.0
New Jersey	0	0	<50 ± 191%	0	<50 ± 191%	0	0	0.0
New York	100 ± 93%	0	400 ± 127%	200 ± 196%	2,800 ± 165%	700 ± 196%	0.1 ± 158%	0.0
North Carolina	0	0	0	0	0	0	0	0.0
Pennsylvania	0	0	0	0	0	0	0	0.0
Rhode Island	0	0	0	0	0	0	0	0.0
South Carolina	0	0	0	0	0	0	0	0.0
Virginia	<50 ± 125%	<50 ± 188%	200 ± 183%	<50 ± 132%	1,300 ± 193%	<50 ± 140%	0.1 ± 222%	0.5 ± 230%
West Virginia	0	<50 ± 192%	<50 ± 192%	<50 ± 192%	300 ± 192%	<50 ± 192%	0	1.0 ± 272%
Atlantic Flyway Total	200 ± 122%	3,000 ± 149%	600	800	4,400 ± 119%	1,300 ± 125%		
Alabama	100 ± 186%	0	<50 ± 186%	<50 ± 185%	<50 ± 186%	<50 ± 185%	6.0 ± 264%	0.0
Arkansas	0	0	0	0	0	0	0	0.0
Indiana	0	0	<50 ± 167%	0	<50 ± 167%	0	0	0.0
Kentucky	0	0	0	0	0	0	0	0.0
Louisiana	300 ± 67%	2,200 ± 107%	<50 ± 53%	100 ± 65%	100 ± 78%	400 ± 105%	6.4 ± 85%	24.5 ± 125%
Michigan	0	0	100 ± 195%	100 ± 195%	200 ± 195%	200 ± 195%	0	0.0
Minnesota	0	1,100 ± 196%	0	1,100 ± 113%	0	2,900 ± 134%	0	1.0 ± 226%
Mississippi	0	200 ± 196%	0	200 ± 196%	0	200 ± 196%	0	1.0 ± 277%
Ohio	0	0	0	0	0	0	0	0.0
Tennessee	0	0	0	100 ± 194%	0	600 ± 194%	0	0.0
Wisconsin	0	0	<50 ± 190%	700 ± 196%	100 ± 190%	1,300 ± 196%	0	0.0
Mississippi Flyway Total	300 ± 65%	3,500 ± 91%	200	2,200	400 ± 104%	5,600 ± 85%		
New Mexico	0	0	0	0	0	0	0	0.0
Oklahoma	<50 ± 187%	0	<50 ± 187%	<50 ± 175%	100 ± 187%	<50 ± 175%	4.0 ± 264%	0.0
Texas	0	100 ± 192%	0	<50 ± 192%	0	<50 ± 192%	0	3.0 ± 271%
Central Flyway Total	<50 ± 187%	100 ± 192%	<50	<50	100 ± 187%	100 ± 139%		
Arizona	0	0	0	0	0	0	0	0.0
California	4,000 ± 116%	6,700 ± 177%	1,200 ± 96%	700 ± 127%	1,600 ± 97%	4,200 ± 169%	3.4 ± 151%	10.2 ± 218%
Idaho	0	0	0	0	0	0	0	0.0
Montana	0	0	0	0	0	0	0	0.0
Nevada	0	0	0	0	0	0	0	0.0
Pacific Flyway Total	4,000 ± 116%	6,700 ± 177%	1,200	700	1,600 ± 97%	4,200 ± 169%		
U.S. Total	4,500 ± 103%	13,200 ± 98%	2,000	3,700	6,500 ± 84%	11,200 ± 78%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 20. Preliminary estimates of rail harvest and hunter activity during the 2007 and 2008 hunting seasons<sup>1</sup>.

State and Management Unit	Rail Harvest		Active Hunters <sup>2</sup>		Rail Days Afield		Seasonal Harvest Per Hunter	
	2007	2008	2007	2008	2007	2008	2007	2008
Connecticut	<50 ± 177%	200 ± 187%	<50 ± 177%	100 ± 131%	<50 ± 177%	300 ± 150%	1.0 ± 250%	2.0 ± 228%
Delaware	<50 ± 170%	0	<50 ± 170%	0	<50 ± 170%	0	4.0 ± 240%	0.0
Florida	1,300 ± 150%	800 ± 193%	100 ± 136%	<50 ± 193%	100 ± 136%	100 ± 193%	18.5 ± 203%	25.0 ± 273%
Georgia	2,700 ± 196%	14,300 ± 106%	900 ± 196%	1,100 ± 165%	4,400 ± 196%	2,400 ± 153%	3.0 ± 277%	12.6 ± 196%
Maine	0	0	0	0	0	0	0	0.0
Maryland	<50 ± 188%	0	<50 ± 188%	0	100 ± 188%	0	1.0 ± 266%	0.0
Massachusetts	100 ± 174%	<50 ± 116%	<50 ± 158%	<50 ± 90%	100 ± 152%	<50 ± 103%	2.7 ± 235%	1.7 ± 147%
New Jersey	3,100 ± 64%	3,700 ± 64%	200 ± 51%	100 ± 38%	500 ± 92%	400 ± 58%	20.5 ± 82%	29.6 ± 74%
New York	200 ± 159%	0	200 ± 167%	300 ± 176%	300 ± 121%	800 ± 176%	1.1 ± 231%	0.0
North Carolina	0	1,800 ± 196%	0	300 ± 196%	0	800 ± 196%	0	7.0 ± 277%
Pennsylvania	1,200 ± 194%	0	100 ± 135%	0	700 ± 164%	0	10.0 ± 237%	0.0
Rhode Island	<50 ± 180%	0	<50 ± 170%	0	200 ± 148%	0	0.1 ± 247%	0.0
South Carolina	2,400 ± 127%	2,500 ± 68%	500 ± 180%	100 ± 52%	600 ± 167%	200 ± 67%	4.5 ± 220%	30.5 ± 86%
Virginia	4,400 ± 43%	9,700 ± 72%	300 ± 93%	300 ± 33%	1,700 ± 149%	1,300 ± 70%	12.7 ± 103%	33.3 ± 79%
West Virginia	200 ± 171%	0	<50 ± 168%	0	300 ± 165%	0	6.9 ± 240%	0.0
Atlantic Flyway Total	15,700 ± 47%	33,100 ± 52%	2,500	2,300	9,100 ± 102%	6,300 ± 69%		
Alabama	0	300 ± 185%	0	<50 ± 185%	0	100 ± 185%	0	33.0 ± 261%
Arkansas	0	0	0	0	0	0	0	0.0
Illinois	100 ± 189%	0	<50 ± 189%	100 ± 136%	<50 ± 189%	200 ± 164%	4.0 ± 267%	0.0
Indiana	500 ± 130%	1,200 ± 158%	500 ± 94%	300 ± 128%	800 ± 96%	1,000 ± 150%	0.9 ± 161%	3.5 ± 203%
Iowa	1,100 ± 107%	700 ± 181%	800 ± 107%	500 ± 130%	1,300 ± 121%	1,400 ± 159%	1.4 ± 151%	1.5 ± 223%
Kentucky	300 ± 192%	<50 ± 193%	<50 ± 192%	<50 ± 193%	<50 ± 192%	<50 ± 193%	11.0 ± 271%	1.0 ± 273%
Louisiana	300 ± 89%	800 ± 139%	<50 ± 59%	100 ± 76%	100 ± 82%	300 ± 116%	9.5 ± 107%	11.8 ± 159%
Michigan	100 ± 195%	0	100 ± 195%	100 ± 195%	100 ± 195%	200 ± 195%	1.0 ± 276%	0.0
Minnesota	0	2,500 ± 196%	800 ± 138%	1,200 ± 103%	7,000 ± 139%	4,700 ± 97%	0	2.1 ± 221%
Mississippi	0	0	0	200 ± 196%	0	700 ± 196%	0	0.0
Missouri	300 ± 190%	1,900 ± 102%	<50 ± 190%	1,000 ± 122%	<50 ± 190%	9,300 ± 183%	20.0 ± 268%	2.0 ± 159%
Ohio	200 ± 195%	0	100 ± 195%	0	100 ± 195%	0	3.0 ± 275%	0.0
Tennessee	0	0	0	100 ± 194%	0	600 ± 194%	0	0.0
Wisconsin	700 ± 151%	700 ± 196%	500 ± 184%	2,000 ± 113%	700 ± 148%	4,600 ± 115%	1.3 ± 238%	0.3 ± 226%
Mississippi Flyway Total	3,500 ± 55%	8,100 ± 74%	2,900	5,500	10,200 ± 97%	23,100 ± 81%		
Colorado	1,600 ± 196%	100 ± 195%	200 ± 196%	100 ± 195%	900 ± 196%	100 ± 195%	7.0 ± 277%	1.0 ± 276%
Kansas	0	3,300 ± 173%	0	800 ± 138%	0	800 ± 138%	0	4.0 ± 221%
Nebraska	0	300 ± 195%	0	100 ± 195%	0	300 ± 195%	0	4.0 ± 275%
New Mexico	0	0	0	0	0	0	0	0.0
Oklahoma	1,200 ± 177%	<50 ± 175%	<50 ± 93%	<50 ± 94%	300 ± 96%	<50 ± 115%	28.0 ± 200%	0.3 ± 199%
Texas	2,400 ± 190%	100 ± 157%	2,400 ± 192%	2,400 ± 192%	2,400 ± 190%	2,400 ± 190%	1.0 ± 270%	<0.1 ± 249%
Wyoming	0	<50 ± 160%	0	<50 ± 160%	0	<50 ± 160%	0	1.0 ± 227%
Central Flyway Total	5,200 ± 113%	3,800 ± 150%	2,600	3,400	3,600 ± 135%	3,700 ± 130%		
U.S. Total	24,500 ± 39%	45,000 ± 43%	8,000	11,200	22,900 ± 63%	33,200 ± 60%		

<sup>1</sup> Variance estimates presented as 95% confidence interval as percent of the point estimate.

<sup>2</sup> Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

<sup>3</sup> Variance inestimable.



Table 21. Preliminary estimates of rail harvest during the 2007 and 2008 hunting seasons. Species-specific estimates were derived from 5-year running averages of species composition estimates from the Migratory Bird Wing Collection Survey.

Flyway	Sora		Virginia		Clapper		King	
	2007	2008	2007	2008	2007	2008	2007	2008
Atlantic	5,300	8,000	200	400	10,200	24,700	<50	<50
Mississippi	3,400	8,000	<50	100	<50	<50	<50	<50
Central	4,800	3,700	200	100	0	0	300	0
U.S. Total	13,500	19,600	500	600	10,200	24,700	300	<50

**Appendix A. Names of people who coordinate the Harvest Information Program or help provide hunter name and address data to the USFWS.**

Cheri Hart, Alabama Department of Conservation and Natural Resources  
Kristin Wright, Alaska Department of Fish and Game  
Amber Munig, Arizona Game and Fish Department  
Alice Browning, Arkansas Game and Fish Commission  
Kim Shepherd, California Department of Fish and Game  
Ed Gorman, Colorado Division of Wildlife  
Min Huang, Connecticut Department of Environmental Protection  
Lynn Herman, Delaware Department of Natural Resources and Environmental Control  
Susan Weaver, Florida Fish and Wildlife Conservation Commission  
James Eager and Greg Balkcom, Georgia Department of Natural Resources  
Craig Weidmeier, Idaho Department of Fish and Game  
Craig Hill, Illinois Department of Natural Resources  
Adam Phelps, Indiana Department of Natural Resources  
Rich Smith, Iowa Department of Natural Resources  
Mary Becker, Kansas Department of Wildlife and Parks  
Denise Boebinger, Kentucky Department of Fish and Wildlife Resources  
Janis Landry, Louisiana Department of Wildlife and Fisheries  
Bill Swan, Maine Department of Inland Fisheries and Wildlife  
Anedra Knight and Brent Evans, Maryland Department of Natural Resources  
Rick Kennedy, Massachusetts Division of Fisheries and Wildlife  
Kristen Shuler, Michigan Department of Natural Resources  
Margaret Dexter, Minnesota Department of Natural Resources  
Kevin Brunke, Mississippi Department of Wildlife, Fisheries and Parks  
Tom Kulowiec, Missouri Department of Conservation  
Barry Beardslee and Jim Hansen, Montana Department of Fish, Wildlife and Parks  
Mark Vrtiska, Nebraska Game and Parks Commission  
Paula Lannen, Nevada Department of Wildlife  
Susan Perry, New Hampshire Fish and Game Department  
Barbara Stoff, New Jersey Division of Fish and Wildlife  
Tim Mitchusson, New Mexico Department of Game and Fish  
Mary Bailey and Bryan Swift, New York Department of Environmental Conservation  
Harvey White and Bobby Dunn, North Carolina Wildlife Resources Commission  
Jerel Gulke, North Dakota Game and Fish Department  
Korey Brown, Ohio Department of Natural Resources  
Rodney Derrick, Oklahoma Department of Wildlife Conservation  
Bill Herber and Brad Bales, Oregon Department of Fish and Wildlife  
Valerie Kazakavage, Pennsylvania Game Commission  
Margaret McGrath and Ed Ferris, Rhode Island Division of Fish and Wildlife Resources  
Phoebe Carter and Bryan Kyzer, South Carolina Department of Natural Resources  
Corey Huxoll, South Dakota Game, Fish and Parks Department  
Gary Clouse, Tennessee Wildlife Resources Agency  
Kevin Kraai, Texas Parks and Wildlife Department  
Tom Aldrich, Utah Division of Wildlife Resources

Tom Merrifield, Vermont Fish and Wildlife Department  
Bob Ellis, Virginia Department of Game and Inland Fisheries  
Rajbir Deol and Don Kraege, Washington Department of Fish and Wildlife  
Joyce Newcomer, West Virginia Department of Natural Resources  
Brian Dhuey, Wisconsin Department of Natural Resources  
Jerome Espinoza, Wyoming Game and Fish Department

## **Appendix B. Names of waterfowl wingbee participants.**

### **Atlantic Flyway wingbee, Laurel, MD; January 26-30, 2009**

C. Beemiller, USFWS; J. Bennett, MD DNR; R. Bessey, USFWS; E. Bjerre, USFWS; P. Bosco, USFWS; M. Brown, MD DNR; P. Chvilicek, USFWS (volunteer); L. Coldiron, USFWS; A. Croft, USFWS; A. Dansie, USFWS (volunteer); W. Davis, MD DNR; J. Dolan, MD DNR; D. Eversberg, MD DNR; T. Fries, OSU; S. Gibbs, USFWS; A. Hardaswick, USFWS; J. Klimstra, USFWS; M. Lathroum, MD DNR; M. Livingston, USFWS (volunteer); D. Mackall Jr., MD DNR; G. Martin, USFWS; W. Martin, USFWS (retired); P. Padding, USFWS; J. Pape, USFWS (volunteer); M. Peters, WV DNR; B. Raftovich, USFWS; K. Richkus, USFWS; N. Saake, NV DOW (retired); N. Sagwitz, MD DNR; M. Scarborough, MD DNR; R. Slemons, OSU; C. Wicker, USFWS; K. Wilkins, USFWS

### **Mississippi Flyway wingbee, Carbondale, IL; February 2-6, 2009**

A. Anderson, USFWS; S. Angelo, OH DNR; P. Baranowski, OH DNR; J. Carbaugh, AR GFC; D. Emmons, IA DNR; D. Endrizzi, USFWS; C. Ferrell, USFWS; S. Ferrell, KY DFWR; J. Finfera, USFWS; T. Fries, OSU; D. Fronczak, USFWS; D. Fuqua, TN WRA; A. Galvan, USFWS; J. Hanks, LA DWF; M. Hoehn, OH DNR; R. Kelly, MO DOC; G. Knutsen, USFWS; D. Major, IL DNR; P. Mathias, USFWS; D. Norwood, USFWS; A. Novarra, USFWS (retired); D. Rave, MN DNR; K. Richkus, USFWS; G. Schmitt, IA DNR; R. Slemons, OSU; R. Vinson, MO DOC; K. Wilkins, USFWS; M. Zaleski, OH DNR

### **Central Flyway wingbee, Emporia, KS; February 16-20, 2009**

S. Bayless, USFWS; S. Crook, TX PWD; D. Farmer, KS DWP; A. Friesen, KS DWP; L. Hancock, USFWS; H. Hands, KS DWP; J. Harbit, KS DWP; J. Hoskins, USFWS; B. Johnson, TX PWD; M. Johnson, ND GFD; B. Klema, KS DWP; K. Kraii, TX PWD; M. Kraft, KS DWP (retired); K. Kruse, USFWS; N. Lyman, NE GFC (retired); M. Manbeck, KS DWP; F. McNew, KS DWP; T. Mitchusson, NM DGF; J. Neal, OK DWC; M. Olson, NM DGF; A. Pearse, USGS; C. Pyle, USFWS; J. Richardson, OK DWC; K. Richkus, USFWS; L. Roberts, WY GFD; N. Sanchez, KS DWP; K. Schoonover, OK DWC; T. Seirer, KS DWP and USFWS; D. Sharp, USFWS; R. Slemons, OSU; J. Solberg, USFWS; H. Spriggs, USFWS; R. Stutheit, NE GPC; M. Symmank, TX PWD; M. Szymanski, ND GFD; T. Teets, USFWS; P. Thorpe, USFWS; M. Van Thayne, USFWS; M. Vrtiska, NE GPC; K. Weers, KS DWP; R. Whiteaker, KS DWP; J. White, NE GPC; K. Wilkins, USFWS; J. Williams, KS DWP; A. Zavala, KS DWP; A. Zimmerman, USFWS

### **Pacific Flyway wingbee, Anderson, CA; February 23-27, 2009**

B. Bales, OR DFW; D. Barrett, USFWS; N. Baucom, CWA; D. Benning, USFWS (retired); G. Burgess, USFWS; J. Christensen, UT DWR; D. Collins, USFWS; M. Conlin, USFWS; S. Cordes, CA DFG; C. Dau, USFWS; A. Galwey, CA DFG; G. Gerstenberg, CA DFG; E. High, CWA; J. Hoskins, USFWS; J. Journey, OR DFW; R. Kindler, USFWS (volunteer); M. Koole, USFWS; R. Ladd, USFWS; J. Laughlin, CWA; V. Lovern, USFWS; N. Lyman, NE GPC (retired); C. Mochu, USFWS (volunteer), L. Mochu, USFWS (volunteer); M. Moore, WA DFW; C. Mortimore, NV DOW; K. Neil, NV DOW; M. Ocken, USFWS; S. Oldenburger, CA DFG; S. Olson, NV DOW (volunteer); R. Prince, OR DFW; M. Rabe, AZ GFD; B. Reishus, OR DFW; K. Richkus, USFWS; N. Saake, NV DOW (retired), P. Saake, NV DOW (volunteer); P. Sater, CA DFG; T. Sponcey, NV DOW (volunteer); H. Spriggs, USFWS; E. Taylor, USFWS; B. Trost, USFWS; D. Van Baren, CA DFG; M. Weaver, CA DFG; T. Welch, CA DFG; K. Wilkins, USFWS; D. Yparraguirre, CA DFG; L. Zeringue, USFWS

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