U.S. Fish & Wildlife Service

Migratory Bird Hunting Activity and Harvest during the 2022–23 and 2023–24 Hunting Seasons

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Hunter setting decoys
USFWS/Milton Friend

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Abstract: National surveys of migratory bird hunters were conducted during the 2022 and 2023 hunting seasons. Due to modifications of the FWS online harvest survey application prior to the 2023 hunting season, estimates of harvest and hunter activity may not be comparable to previous years' estimates, and remain preliminary until additional surveys to evaluate potential bias have been conducted. 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 gallinule [*Gallinula galeata*] and purple gallinule [*Porphyrio martinicus*]), and rails (king rail [*Rallus elegans*], clapper rail [*R. crepitans*], Virginia rail [*R. limicola*], and sora [*Porzana carolina*]). About 1 million waterfowl hunters harvested 8,272,400 (± 5%) ducks and 1,987,000 (± 11%) geese in the 2022 season, and about 1.3 million waterfowl hunters were estimated to have harvested 14,755,600 (± 3%) ducks and 3,401,800 (± 6%) geese in the 2023 season. Mallard (*Anas platyrhynchos*), green-winged teal (*A. crecca)*, wood duck (*Aix sponsa*), gadwall (*Mareca strepera*), and blue-winged/cinnamon teal (*Spatula discors* and *S. cyanoptera*) were the most-harvested duck species in the U.S., and Canada goose (*Branta canadensis*) was the predominant goose species in the goose harvest. Approximately 625,000 hunters harvested 8,254,600 (± 7%) mourning doves in 2022 and 1,018,100 hunters harvested 16,759,700 (± 4) mourning doves in 2023. Woodcock hunters numbered about 105,100 in 2022 and 136,400 in 2023, and harvested 177,900 (± 16%) woodcock in 2022 and 239,200 (± 18%) woodcock in 2023. About 22,500 people hunted snipe in 2022 and 80,700 in 2023, and they harvested 90,400 (± 50%) and 326,600 (± 55%) snipe in 2022 and 2023, respectively. Coot hunters (about 42,700 in 2022 and 75,600 in 2023) harvested 194,100 (± 43%) coots in 2022 and 643,700 (± 54%) in 2023. Gallinule hunters (about 2,600 in 2022 and 34,500 in 2023) harvested 24,000 (± 130 %) in 2022 and 106,800 (± 51 %) in 2023. Approximately 5,300 rail hunters harvested 34,800 (± 100%) rails in 2022 and 38,600 rail hunters harvested 84,900 (± 52%) rails in 2023.

Introduction

In the 1952-53 hunting season, the U.S. Fish and Wildlife Service (FWS) began conducting a survey of Federal Duck Stamp purchasers to estimate waterfowl hunter activity and harvest in the United States. That survey was conducted annually until 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 this information to the FWS. The States are also responsible for providing 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 2022-23 and 2023-24 hunting seasons. These estimates are preliminary, pending (1) an evaluation of bias in survey responses, in particular changes in non-response bias; (2) final counts of the number of HIP registrants in each state each season, and (3) 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 2-3 times a month, starting in August 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 species or species-groups (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. 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. 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. For the waterfowl and dove surveys, sampling rates were equal among success/ activity strata; for the other surveys, sample rates were highest for active/successful hunters, and lower for the very large group of hunters who rarely if ever hunt the species or species group.

Online Survey Application. FWS transitioned from a paper form survey to an online application (www.fws.gov/harvestsurvey) in the 2022-2023 hunting season. Prior to the 2023-2024 season, changes were made to the online survey to (1) remove the account login and password, replacing it with a survey invitation access code, and (2) improve response rates by sending end-of-season reminder emails to all hunters with email addresses. These changes had the potential to influence accuracy and precision in the estimates of hunting activity and harvest by affecting response rates and non-response bias (differential response rates of hunters who hunted and did not hunt). Additional surveys are planned to evaluate the impact of these changes, but were not conducted in time for this report.

Survey Methodology. Contact before or early in the hunting season, and a daily hunting diary format, were used whenever possible 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. For hunters who forgot to record their daily hunting information throughout the season, or did not receive the survey invitation until after the hunting season began, an option to record season totals instead of daily records was provided in the survey. 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 a modification of Dillman's Total Design Method for mail surveys (Dillman 1978, Dillman 1991) to maximize survey response and ensure quality and timely responses. A survey email invitation was sent to each selected hunter within 1-5 days after his/her name was received, followed every 6 days by up to 3 additional email invitations until the hunter accessed the survey. If no email address was received for the hunter, up to 3 paper invitations were sent in the mail. 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. Up to three email reminders were sent at the close of the season for all hunters with email addresses reminding sampled hunters to return their completed survey forms and thanking them for their participation. Hunters were also allowed to request a paper form which was sent to them in the mail.

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 calculate 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 register for HIP 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 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 1963-2023 were reported in "American woodcock population status, 2024" (Seamans and Rau 2024). 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.

Beginning in 2007, the FWS has performed a national Mourning Dove Parts Collection Survey to determine an index of recruitment. Selected hunters were asked to send in a wing from mourning doves harvested during the first two hunts of the season. Pooled age ratios from 2009-2023 were reported in "Mourning dove population status, 2024" (Seamans 2024).

Survey Results

Note: *Harvest and hunting activity estimates for the 2023-2024 hunting season were very high for some species groups, including ducks, geese, and doves. Some of these increases may be a result of higher sample rates, but could also due to changes made to the survey which have the potential to affect non-response bias. Until additional surveys can be conducted to estimate this bias, these estimates should be viewed as preliminary.*

Waterfowl Hunter Activity and Harvest (Tables 1-7, Figures 1-3). HIP waterfowl harvest survey sample sizes (number of hunters invited) and response rates were 237,676 hunters and 18%, respectively, for 2022-23, and 336,742 hunters and 21% for the 2023-24 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, Montana, New Mexico, and Wyoming to the Central Flyway. However, the Waterfowl Parts Collection Survey enabled us to provide Flyway-specific point estimates of duck and goose harvest for those four states (Table 2).

Sea duck hunter activity and harvest were estimated separately from other ducks for states that have or had special sea duck seasons or regulations (Table 3). Likewise, brant hunter activity and harvest along the Atlantic and Pacific coasts were 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 of duck and goose days afield or active duck and goose hunters 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 of 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-present. In 2024 we transitioned to a new method to estimate lowess curves using R (R Core Team 2023) which resulted in slight changes to these lines in the report figures.

Waterfowl Age and Sex Ratios (Tables 8-12, Figures 3-6). The 2022-23 Waterfowl Parts Survey collected 45,181 duck wings and 8,789 goose tails and primary wing tips from 2,750 hunters; the 2023-24 sample consisted of 53,269 duck wings and 9,686 goose tails and primary wing tips from 3,274 hunters. State-specific mallard age ratios and flyway-level age ratios for other duck 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 60,604 hunters invited in 2022-23 (21% response rate) and 152,676 hunters invited in 2023-24 (23% 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 2022-23 survey had a sample size of 31,550 hunters invited and a 26% response rate; the 2023-24 survey sample size and response rate were 31,089 hunters and 28%, respectively.

Snipe, Coot, Gallinule, and Rail Hunter Activity and Harvest (Tables 17-21). The sample for the 2022-23 snipe, coot, gallinule, and rail harvest survey was 57,720 hunters invited (20% response rate) and 61,689 hunters invited (20% response rate) for the 2023-24 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 2022-23 estimates are based on 1,201 rail wings collected from 97 hunters during the period 2018-2022, and the 2023-24 estimates are based on 1,183 rail wings collected from 96 hunters during the period 2019-2023.

Alaska Sandhill Crane Hunter Activity and Harvest Estimates. The estimates presented below were derived from surveys of 766 (2022-23, 26% response rate) and 848 (2023-24, 35% response rate) Alaska migratory bird hunters. For Alaska's 2022 season, we estimated that 877 active sandhill crane hunters spent 1,984 days hunting cranes and harvested 794 birds. In 2023, an estimated 1,286 active hunters spent 4,160 days hunting cranes and harvested 1,392 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 2022 and 2023 seasons were

reported in “Status and harvests of sandhill cranes: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern populations” (Seamans 2024).

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Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2022 and 2023 hunting seasons.

	Connecticut		Delaware		Florida	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	2,447	2,860	2,797	8,719	0	1,497
Domestic Mallard	21	0	52	0	0	1,497
Black Duck	987	1,874	2,175	7,392	0	0
Mallard x Black Hybrid	41	49	155	0	0	0
Mottled Duck	0	0	0	0	6,981	11,728
Gadwall	226	148	673	5,876	1,164	499
Wigeon	206	148	259	1,137	3,103	2,495
Green-winged Teal	493	1,381	3,263	16,491	4,913	11,728
Blue-winged/Cinnamon Teal	62	0	881	190	35,037	60,634
Northern Shoveler	0	0	2,020	4,739	3,232	3,493
Northern Pintail	0	394	466	1,706	1,293	1,497
Wood Duck	1,809	3,747	932	3,601	7,240	38,925
Redhead	0	0	0	0	517	3,244
Canvasback	0	0	0	0	129	250
Greater Scaup	82	493	0	0	259	1,248
Lesser Scaup	0	148	0	2,085	4,525	16,219
Ring-necked Duck	21	99	155	190	43,828	81,843
Goldeneyes	0	0	0	0	0	0
Bufflehead	308	1,479	52	1,327	2,715	1,497
Ruddy Duck	0	99	104	758	1,164	1,747
Long-tailed Duck	62	439	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	498	0	0	259	250
Hooded Merganser	21	99	259	379	0	1,747
Other Mergansers	308	444	0	0	388	0
Other Ducks	0	0	0	667	6,594	5,989
Total Duck Harvest	7,100±32%	14,400±25%	14,200±31%	55,300±28%	123,300±25%	248,000±29%
Total Active Duck Hunters[a]	1,600±22%	2,400±10%	3,100±17%	4,400±8%	17,400±13%	27,000±13%
Total Duck Hunter Days Afield[a]	6,200±29%	14,300±21%	14,400±34%	38,800±15%	62,800±39%	131,700±21%
Seasonal Duck Harvest Per Hunter[a]	4.5±39%	5.7±27%	4.6±35%	12.3±29%	7.1±29%	9.2±32%
Goose Species Composition						
Canada Goose	5,494	12,410	10,171	22,690	0	2,458
Cackling Goose	0	31	0	176	0	0
Snow Goose	14	31	2,337	3,342	0	819
Blue Goose	0	31	412	176	0	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	78	416	48	194	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	5,600±45%	12,900±28%	13,000±67%	26,600±38%	N/A [d]	3,300±131%
Total Active Goose Hunters[b]	1,300±24%	1,900±12%	2,700±20%	4,200±9%	N/A [d]	1,500±73%
Total Goose Hunter Days Afield[b]	5,000±33%	12,200±30%	8,400±34%	23,500±16%	N/A [d]	7,000±84%
Seasonal Goose Harvest Per Hunter[b]	4.2±51%	6.5±31%	4.7±70%	6.2±39%	N/A [d]	2.1±150%
Active Waterfowl Hunters[c]	2,100±19%	2,800±9%	4,400±13%	5,500±7%	17,400±13%	27,000±13%
Sample Sizes						
DuckWings	343	305	275	289	954	994
GooseTails	396	401	125	151	0	4

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2022 and 2023 hunting seasons.

	Georgia		Maine		Maryland	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	6,393	12,564	8,520	16,617	23,553	30,498
Domestic Mallard	0	0	111	0	0	266
Black Duck	266	0	3,620	7,209	11,991	13,052
Mallard x Black Hybrid	0	0	278	0	1,071	0
Mottled Duck	0	0	0	0	0	0
Gadwall	2,664	5,863	0	244	3,640	3,063
Wigeon	0	0	56	489	1,285	1,865
Green-winged Teal	7,992	8,376	2,060	5,010	7,494	27,568
Blue-winged/Cinnamon Teal	3,197	7,120	334	244	214	799
Northern Shoveler	0	1,675	0	122	214	1,065
Northern Pintail	0	0	56	367	1,071	3,196
Wood Duck	68,461	196,421	4,455	8,919	9,207	16,248
Redhead	266	1,675	0	0	1,071	533
Canvasback	0	419	0	0	2,141	3,329
Greater Scaup	0	838	0	244	3,212	2,397
Lesser Scaup	799	2,513	0	0	1,713	6,393
Ring-necked Duck	2,664	21,359	167	611	856	1,065
Goldeneyes	0	0	278	122	0	266
Bufflehead	1,066	0	223	1,588	9,207	8,124
Ruddy Duck	0	419	334	0	642	1,199
Long-tailed Duck	0	0	2,852	1,071	2,521	4,129
Eiders	0	0	259	857	0	0
Scoters	0	0	1,093	2,572	5,882	18,285
Hooded Merganser	3,729	12,983	668	1,466	1,071	1,065
Other Mergansers	0	0	111	1,100	642	133
Other Ducks	0	0	56	0	0	0
Total Duck Harvest	97,500±44%	272,200±31%	25,500±25%	48,900±21%	88,700±15%	144,500±23%
Total Active Duck Hunters[a]	19,300±16%	30,700±11%	4,500±13%	7,500±8%	18,700±6%	19,600±11%
Total Duck Hunter Days Afield[a]	71,000±39%	224,200±19%	15,800±21%	38,800±14%	59,800±13%	98,500±21%
Seasonal Duck Harvest Per Hunter[a]	5.0±46%	8.9±33%	4.7±29%	5.9±23%	4.3±16%	6.2±26%
Goose Species Composition						
Canada Goose	3,524	58,170	8,198	17,355	43,737	108,021
Cackling Goose	0	0	0	0	0	696
Snow Goose	0	0	0	0	0	418
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	0	0	0	181	0
White-fronted Goose	0	0	0	0	0	0
Brant	0	0	0	0	103	78
Other Geese	0	0	0	0	0	0
Total Goose Harvest	3,500±87%	58,200±100%	8,200±31%	17,400±42%	44,000±15%	109,200±20%
Total Active Goose Hunters[b]	4,500±44%	12,300±21%	3,000±18%	4,000±13%	14,000±8%	21,000±10%
Total Goose Hunter Days Afield[b]	7,500±62%	68,100±41%	9,500±31%	20,500±22%	52,200±14%	109,100±18%
Seasonal Goose Harvest Per Hunter[b]	0.8±97%	4.7±103%	2.8±36%	4.3±44%	3.1±17%	5.2±23%
Active Waterfowl Hunters[c]	20,200±16%	32,000±10%	5,800±11%	8,600±8%	26,300±4%	30,100±7%
Sample Sizes						
DuckWings	366	650	400	384	395	955
GooseTails	147	83	154	124	244	785

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2022 and 2023 hunting seasons.

	Massachusetts		New Hampshire		New Jersey	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	3,933	5,213	2,914	4,071	7,477	7,041
Domestic Mallard	66	0	0	0	0	0
Black Duck	1,442	3,770	607	462	5,521	9,695
Mallard x Black Hybrid	262	0	30	0	345	102
Mottled Duck	0	0	0	0	0	0
Gadwall	66	642	0	0	920	2,143
Wigeon	0	80	0	0	0	612
Green-winged Teal	524	2,486	212	420	3,106	9,083
Blue-winged/Cinnamon Teal	0	0	91	0	230	0
Northern Shoveler	0	0	0	0	805	0
Northern Pintail	0	0	61	0	115	918
Wood Duck	3,737	3,048	3,339	3,358	6,902	6,225
Redhead	0	0	0	0	0	102
Canvasback	0	0	0	0	0	0
Greater Scaup	66	160	0	0	1,265	1,531
Lesser Scaup	197	882	0	0	230	1,021
Ring-necked Duck	0	0	0	168	0	408
Goldeneyes	328	321	121	84	0	0
Bufflehead	2,294	1,845	152	420	9,777	23,778
Ruddy Duck	131	80	0	0	230	918
Long-tailed Duck	296	642	0	170	830	2,860
Eiders	1,186	3,423	0	0	0	0
Scoters	2,667	2,006	0	0	1,522	1,668
Hooded Merganser	590	642	364	797	920	3,776
Other Mergansers	1,573	1,684	243	546	575	2,347
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	19,400±18%	26,900±43%	8,100±47%	10,500±17%	40,800±18%	74,200±40%
Total Active Duck Hunters[a]	3,900±7%	3,800±20%	2,000±21%	2,900±9%	6,200±8%	8,000±13%
Total Duck Hunter Days Afield[a]	14,100±13%	22,900±38%	7,500±39%	15,500±14%	24,200±13%	48,000±20%
Seasonal Duck Harvest Per Hunter[a]	3.9±19%	5.5±47%	4.2±51%	3.5±20%	6.2±19%	8.7±42%
Goose Species Composition						
Canada Goose	9,099	15,346	3,487	6,497	11,152	25,768
Cackling Goose	0	0	0	0	0	0
Snow Goose	0	301	0	0	94	1,133
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	224	116	0	0	1,627	3,247
Other Geese	0	0	0	0	0	0
Total Goose Harvest	9,300±28%	15,800±56%	3,500±50%	6,500±33%	12,900±38%	30,100±37%
Total Active Goose Hunters[b]	2,700±9%	2,800±27%	1,500±26%	1,900±12%	3,600±11%	5,400±19%
Total Goose Hunter Days Afield[b]	9,300±16%	15,700±32%	5,200±43%	11,100±23%	11,000±19%	22,300±28%
Seasonal Goose Harvest Per Hunter[b]	3.4±29%	5.5±62%	2.4±57%	3.4±35%	3.2±40%	5.0±42%
Active Waterfowl Hunters[c]	4,900±6%	4,600±18%	2,600±17%	3,200±8%	7,800±6%	10,000±10%
Sample Sizes						
DuckWings	246	317	268	247	351	702
GooseTails	63	53	89	72	135	213

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2022 and 2023 hunting seasons.

	New York		North Carolina		Pennsylvania	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	28,666	46,352	32,693	41,026	12,024	18,700
Domestic Mallard	85	0	0	263	0	197
Black Duck	8,736	18,337	1,614	8,416	2,122	2,953
Mallard x Black Hybrid	170	204	404	263	303	197
Mottled Duck	0	0	404	0	0	0
Gadwall	1,527	1,528	16,145	25,773	3,031	197
Wigeon	3,647	6,214	3,633	14,201	707	394
Green-winged Teal	7,718	19,458	43,994	79,423	2,930	4,527
Blue-winged/Cinnamon Teal	1,103	713	404	3,682	1,415	1,181
Northern Shoveler	509	1,222	3,633	3,419	101	0
Northern Pintail	2,290	6,112	2,018	3,682	202	0
Wood Duck	12,213	22,208	98,483	137,807	18,895	36,612
Redhead	2,120	713	1,211	6,049	606	0
Canvasback	933	102	0	263	202	591
Greater Scaup	1,611	2,445	3,229	2,630	202	591
Lesser Scaup	1,527	4,177	16,548	54,176	1,314	3,346
Ring-necked Duck	594	2,037	14,934	11,309	505	591
Goldeneyes	1,272	4,279	0	0	101	0
Bufflehead	3,392	6,418	12,109	23,143	2,223	2,953
Ruddy Duck	0	0	3,229	7,101	404	1,968
Long-tailed Duck	678	7,174	0	1,315	0	0
Eiders	0	1,157	0	0	0	0
Scoters	254	6,090	2,018	13,675	101	0
Hooded Merganser	3,053	4,482	7,265	4,208	505	394
Other Mergansers	6,955	8,965	1,211	3,156	1,213	4,134
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	89,100±17%	170,400±26%	265,200±11%	445,000±14%	49,100±34%	79,500±26%
Total Active Duck Hunters[a]	14,000±7%	18,800±9%	30,800±5%	47,800±8%	14,500±15%	23,200±11%
Total Duck Hunter Days Afield[a]	58,700±12%	121,000±19%	136,800±9%	297,900±11%	47,700±25%	114,000±19%
Seasonal Duck Harvest Per Hunter[a]	6.4±19%	8.5±28%	8.6±12%	9.3±16%	3.4±37%	3.4±28%
Goose Species Composition						
Canada Goose	75,234	105,142	28,898	31,971	42,439	102,372
Cackling Goose	0	363	0	0	0	0
Snow Goose	5,445	363	0	761	1,069	648
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	1,225	2,404	118	236	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	81,900±22%	108,300±29%	29,000±30%	33,000±39%	43,500±37%	103,000±30%
Total Active Goose Hunters[b]	10,400±9%	15,200±11%	10,900±11%	18,000±15%	12,600±16%	24,600±11%
Total Goose Hunter Days Afield[b]	34,700±18%	69,000±21%	30,800±18%	86,600±26%	44,100±30%	117,600±24%
Seasonal Goose Harvest Per Hunter[b]	7.8±24%	7.0±31%	2.6±32%	1.8±42%	3.5±40%	4.2±32%
Active Waterfowl Hunters[c]	18,600±5%	23,300±7%	33,000±5%	49,100±8%	18,900±13%	32,600±9%
Sample Sizes						
DuckWings	1,050	1,569	657	1,692	486	404
GooseTails	371	623	57	87	407	477

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2022 and 2023 hunting seasons.

	Rhode Island		South Carolina		Vermont	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	780	1,616	5,400	14,882	5,453	7,577
Domestic Mallard	14	0	0	992	0	0
Black Duck	596	1,487	0	992	947	1,584
Mallard x Black Hybrid	28	0	0	0	0	0
Mottled Duck	0	0	771	2,976	0	0
Gadwall	14	388	8,871	16,370	76	0
Wigeon	113	259	771	1,984	568	620
Green-winged Teal	71	194	33,171	54,566	1,704	3,444
Blue-winged/Cinnamon Teal	0	0	9,643	5,457	265	413
Northern Shoveler	0	0	3,471	6,449	0	69
Northern Pintail	28	0	1,543	4,961	227	413
Wood Duck	340	453	56,700	145,841	3,181	4,133
Redhead	0	0	0	992	0	0
Canvasback	0	0	0	0	0	0
Greater Scaup	28	129	0	496	38	69
Lesser Scaup	0	65	1,157	4,465	76	138
Ring-necked Duck	14	0	22,757	20,338	265	827
Goldeneyes	57	129	0	0	833	5,786
Bufflehead	425	1,745	0	496	379	344
Ruddy Duck	14	65	771	496	0	0
Long-tailed Duck	0	752	0	0	0	0
Eiders	71	0	0	0	0	0
Scoters	390	0	771	5,953	76	69
Hooded Merganser	71	0	4,243	8,929	303	276
Other Mergansers	99	582	0	496	114	344
Other Ducks	0	0	0	496	0	0
Total Duck Harvest	3,200±45%	7,900±41%	150,000±33%	298,600±19%	14,500±75%	26,100±21%
Total Active Duck Hunters[a]	700±23%	900±14%	20,400±14%	31,200±10%	1,900±31%	3,600±9%
Total Duck Hunter Days Afield[a]	2,500±45%	6,300±26%	91,000±29%	206,500±15%	10,700±59%	21,700±17%
Seasonal Duck Harvest Per Hunter[a]	3.7±51%	7.7±43%	7.4±36%	9.6±22%	7.8±81%	7.2±23%
Goose Species Composition						
Canada Goose	1,383	2,324	3,466	24,521	15,683	12,689
Cackling Goose	0	0	0	0	0	119
Snow Goose	0	0	0	0	107	0
Blue Goose	0	0	0	0	0	119
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	56	111	0	0	215	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	1,400±43%	2,400±40%	3,500±61%	24,500±54%	16,000±72%	12,900±32%
Total Active Goose Hunters[b]	400±30%	700±20%	3,900±38%	6,100±31%	1,400±45%	2,600±12%
Total Goose Hunter Days Afield[b]	1,800±50%	3,100±28%	6,300±60%	32,900±49%	8,200±83%	12,900±23%
Seasonal Goose Harvest Per Hunter[b]	3.2±52%	3.5±44%	0.9±71%	4.0±62%	11.8±85%	4.9±34%
Active Waterfowl Hunters[c]	1,000±18%	1,100±12%	20,500±14%	31,400±10%	2,200±30%	4,200±8%
Sample Sizes						
DuckWings	203	113	389	602	383	379
GooseTails	103	41	11	14	149	109

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2022 and 2023 hunting seasons.

	Virginia		West Virginia		Flyway Total	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	24,248	48,286	2,238	4,497	169,537	272,018
Domestic Mallard	0	273	0	0	348	3,488
Black Duck	8,729	11,730	197	245	49,551	89,197
Mallard x Black Hybrid	776	1,091	0	0	3,864	1,906
Mottled Duck	0	0	0	0	8,157	14,704
Gadwall	4,074	7,911	263	164	43,354	70,809
Wigeon	0	1,910	0	0	14,348	32,408
Green-winged Teal	3,880	21,006	132	245	123,658	265,405
Blue-winged/Cinnamon Teal	388	4,092	230	981	53,492	85,506
Northern Shoveler	2,910	1,637	0	82	16,895	23,972
Northern Pintail	194	1,091	0	245	9,564	24,583
Wood Duck	13,385	38,738	2,271	3,271	311,549	669,555
Redhead	194	1,637	33	0	6,018	14,945
Canvasback	194	2,182	0	0	3,599	7,136
Greater Scaup	0	1,091	33	0	10,025	14,362
Lesser Scaup	2,328	12,549	0	245	30,413	108,420
Ring-necked Duck	7,372	6,547	33	0	94,165	147,392
Goldeneyes	0	546	33	0	3,024	11,533
Bufflehead	16,101	39,829	33	164	60,456	115,150
Ruddy Duck	194	2,182	99	409	7,316	17,441
Long-tailed Duck	278	0	0	0	7,517	18,552
Eiders	0	0	0	0	1,516	5,437
Scoters	1,947	7,324	0	0	16,980	58,388
Hooded Merganser	1,746	5,183	33	409	24,841	46,835
Other Mergansers	0	1,910	33	899	13,465	26,739
Other Ducks	0	0	0	0	6,649	7,151
Total Duck Harvest	88,900±14%	218,700±33%	5,700±56%	11,900±23%	1,090,300±8%	2,153,000±8%
Total Active Duck Hunters[a]	15,200±7%	18,300±13%	1,400±39%	2,100±11%	175,500	252,300
Total Duck Hunter Days Afield[a]	53,500±12%	132,900±23%	5,300±48%	10,900±18%	682,100±8%	1,543,900±6%
Seasonal Duck Harvest Per Hunter[a]	5.7±16%	11.6±36%	4.1±68%	5.6±25%		
Goose Species Composition						
Canada Goose	23,583	76,211	3,112	6,442	288,660	630,386
Cackling Goose	0	281	0	0	0	1,666
Snow Goose	0	281	0	0	9,065	8,097
Blue Goose	0	0	17	0	429	326
Ross' Goose	0	0	0	0	181	0
White-fronted Goose	0	281	17	0	17	281
Brant	199	1,102	0	0	3,894	7,904
Other Geese	0	0	0	0	0	0
Total Goose Harvest	23,800±25%	78,200±60%	3,100±78%	6,400±39%	302,200±11%	648,700±15%
Total Active Goose Hunters[b]	7,300±12%	11,800±17%	1,300±44%	1,800±13%	81,300	135,900
Total Goose Hunter Days Afield[b]	20,700±17%	71,700±36%	4,000±65%	8,500±25%	258,800±8%	691,800±9%
Seasonal Goose Harvest Per Hunter[b]	3.2±27%	6.5±63%	2.4±89%	3.6±41%		
Active Waterfowl Hunters[c]	17,000±7%	21,200±12%	1,700±36%	2,400±11%	204,400	289,200
Sample Sizes						
DuckWings	455	794	172	145	7,393	10,541
GooseTails	101	275	186	176	2,738	3,688

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2022 and 2023 hunting seasons.

	Alabama		Arkansas		Illinois	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	12,792	18,742	310,881	355,504	74,380	118,764
Domestic Mallard	0	0	0	375	0	450
Black Duck	0	0	0	0	260	2,699
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	20,157	34,486	126,478	269,718	19,765	32,840
Wigeon	775	0	12,754	16,483	6,502	6,298
Green-winged Teal	6,977	11,245	136,044	188,803	27,307	52,184
Blue-winged/Cinnamon Teal	3,489	9,746	10,628	24,350	19,245	5,398
Northern Shoveler	2,326	2,999	45,171	62,185	3,901	13,496
Northern Pintail	775	0	14,880	29,219	7,022	10,347
Wood Duck	32,949	90,714	38,262	116,878	20,025	39,138
Redhead	388	750	2,657	2,622	3,381	2,699
Canvasback	775	750	2,657	2,248	1,300	5,398
Greater Scaup	0	0	0	749	0	450
Lesser Scaup	1,163	2,999	1,063	7,867	3,901	6,748
Ring-necked Duck	5,039	22,491	14,348	22,477	7,022	5,398
Goldeneyes	0	0	0	375	1,300	3,599
Bufflehead	0	0	2,657	17,232	3,901	3,149
Ruddy Duck	0	2,249	531	4,870	1,040	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	775	0	0	0	0	450
Hooded Merganser	1,938	4,498	2,657	5,994	3,381	2,249
Other Mergansers	0	0	0	0	0	0
Other Ducks	388	0	0	0	0	0
Total Duck Harvest	90,700±40%	201,700±33%	721,700±16%	1,127,900±17%	203,600±34%	311,800±18%
Total Active Duck Hunters[a]	10,100±23%	14,800±13%	57,400±6%	65,900±4%	16,100±12%	25,200±8%
Total Duck Hunter Days Afield[a]	46,800±40%	101,400±20%	273,100±16%	437,400±11%	100,200±28%	256,200±14%
Seasonal Duck Harvest Per Hunter[a]	9.0±46%	13.6±35%	12.6±17%	17.1±17%	12.7±36%	12.4±19%
Goose Species Composition						
Canada Goose	4,802	24,684	37,609	38,028	51,490	109,757
Cackling Goose	0	0	0	0	210	1,276
Snow Goose	0	0	5,373	20,825	841	2,552
Blue Goose	0	0	1,791	10,865	630	1,276
Ross' Goose	0	0	5,373	17,203	210	3,191
White-fronted Goose	0	0	57,308	104,125	3,993	5,743
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	4,800±77%	24,700±108%	107,500±27%	191,000±22%	57,400±36%	123,800±24%
Total Active Goose Hunters[b]	2,600±48%	4,400±30%	22,100±14%	31,800±9%	12,600±15%	19,000±10%
Total Goose Hunter Days Afield[b]	7,200±69%	34,100±53%	48,500±20%	139,000±22%	63,100±36%	172,000±17%
Seasonal Goose Harvest Per Hunter[b]	1.8±90%	5.5±112%	4.9±31%	6.0±24%	4.6±39%	6.5±26%
Active Waterfowl Hunters[c]	10,200±23%	15,100±13%	60,500±6%	70,300±4%	19,500±11%	29,000±8%
Sample Sizes						
DuckWings	234	269	1,358	3,011	783	693
GooseTails	5	25	60	211	273	194

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2022 and 2023 hunting seasons.

	Indiana		Iowa		Kentucky	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	35,947	62,244	19,864	24,731	38,287	93,428
Domestic Mallard	265	0	0	0	0	0
Black Duck	929	1,127	0	0	614	0
Mallard x Black Hybrid	0	282	0	0	0	802
Mottled Duck	0	0	0	0	0	0
Gadwall	5,173	5,070	6,621	8,702	8,394	18,044
Wigeon	663	563	1,796	2,748	2,662	3,208
Green-winged Teal	6,102	6,760	20,538	35,265	6,756	12,831
Blue-winged/Cinnamon Teal	2,786	9,858	20,874	30,914	409	401
Northern Shoveler	663	4,506	2,469	5,954	614	6,416
Northern Pintail	663	1,972	2,581	2,519	2,866	2,807
Wood Duck	7,163	10,421	11,559	29,769	5,733	18,846
Redhead	1,592	2,816	1,122	458	205	0
Canvasback	663	282	1,010	687	409	0
Greater Scaup	398	845	0	229	0	0
Lesser Scaup	663	845	561	229	614	1,604
Ring-necked Duck	1,592	3,943	1,571	458	3,276	5,213
Goldeneyes	398	1,127	112	229	0	401
Bufflehead	1,194	8,168	1,122	229	614	2,005
Ruddy Duck	133	845	112	0	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	133	0	112	0	0	0
Hooded Merganser	796	1,690	337	229	0	1,604
Other Mergansers	929	563	112	0	0	0
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	68,800±39%	123,900±38%	92,500±24%	143,300±24%	71,500±55%	167,600±11%
Total Active Duck Hunters[a]	10,000±15%	14,000±11%	9,900±10%	11,200±9%	7,400±18%	12,300±4%
Total Duck Hunter Days Afield[a]	33,000±26%	114,600±18%	50,000±24%	101,200±21%	42,700±41%	109,700±6%
Seasonal Duck Harvest Per Hunter[a]	6.9±42%	8.8±39%	9.3±26%	12.8±26%	9.7±58%	13.6±12%
Goose Species Composition						
Canada Goose	32,692	64,653	27,790	58,679	10,615	31,161
Cackling Goose	0	681	524	515	0	0
Snow Goose	617	0	175	0	0	2,597
Blue Goose	154	340	0	515	0	0
Ross' Goose	0	0	0	1,029	0	0
White-fronted Goose	1,388	2,042	350	0	0	2,597
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	34,900±51%	67,700±31%	28,800±32%	60,700±46%	10,600±70%	36,400±22%
Total Active Goose Hunters[b]	8,300±19%	12,100±13%	8,300±13%	7,800±13%	4,000±28%	7,600±6%
Total Goose Hunter Days Afield[b]	31,200±36%	74,400±22%	33,400±27%	74,100±26%	18,500±93%	55,300±11%
Seasonal Goose Harvest Per Hunter[b]	4.2±54%	5.6±33%	3.5±34%	7.8±47%	2.7±76%	4.8±23%
Active Waterfowl Hunters[c]	12,300±12%	15,500±10%	11,500±9%	12,200±8%	8,300±16%	12,800±4%
Sample Sizes						
DuckWings	519	440	824	626	349	418
GooseTails	226	199	165	118	8	14

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2022 and 2023 hunting seasons.

	Louisiana		Michigan		Minnesota	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	23,434	40,817	84,139	138,559	63,072	112,801
Domestic Mallard	0	0	209	0	0	332
Black Duck	0	0	5,860	10,587	0	0
Mallard x Black Hybrid	0	0	0	623	0	332
Mottled Duck	5,394	7,849	209	0	0	0
Gadwall	64,723	162,877	6,279	5,293	7,635	23,224
Wigeon	6,324	10,989	3,767	9,964	11,951	14,266
Green-winged Teal	142,837	266,490	15,698	34,562	46,142	82,610
Blue-winged/Cinnamon Teal	163,854	276,301	9,000	6,539	125,813	145,978
Northern Shoveler	19,343	38,462	1,674	4,048	6,639	14,598
Northern Pintail	12,461	27,866	3,349	12,766	6,971	13,271
Wood Duck	51,518	95,764	24,279	40,167	62,076	95,881
Redhead	1,674	11,382	7,744	15,880	10,291	15,593
Canvasback	10,229	33,753	2,302	1,868	3,652	5,972
Greater Scaup	372	1,570	1,884	9,652	664	995
Lesser Scaup	12,461	32,183	2,302	15,257	5,311	11,612
Ring-necked Duck	17,297	70,253	5,442	11,832	71,703	53,746
Goldeneyes	372	0	2,302	6,850	7,967	5,972
Bufflehead	3,348	5,102	13,186	39,232	5,975	16,920
Ruddy Duck	558	4,710	209	934	0	664
Long-tailed Duck	0	0	7,116	30,203	0	0
Eiders	0	0	0	0	0	0
Scoters	0	1,570	1,674	4,671	0	0
Hooded Merganser	3,162	5,887	3,977	4,048	2,656	11,944
Other Mergansers	0	0	628	2,491	0	0
Other Ducks	4,836	3,140	0	0	0	332
Total Duck Harvest	544,200±19%	1,097,000±14%	203,200±20%	406,000±17%	438,500±17%	627,000±14%
Total Active Duck Hunters[a]	35,700±8%	55,300±5%	27,400±10%	41,700±7%	53,700±6%	60,000±6%
Total Duck Hunter Days Afield[a]	153,100±17%	418,900±11%	120,900±17%	279,600±12%	214,600±13%	363,600±10%
Seasonal Duck Harvest Per Hunter[a]	15.2±21%	19.8±15%	7.4±22%	9.7±18%	8.2±18%	10.4±15%
Goose Species Composition						
Canada Goose	0	1,481	87,457	237,697	119,747	150,294
Cackling Goose	0	0	913	2,965	2,348	1,005
Snow Goose	13,319	4,444	0	494	0	503
Blue Goose	3,330	2,963	0	0	0	503
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	17,759	41,479	0	0	783	0
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	34,400±69%	50,400±39%	88,400±27%	241,200±21%	122,900±26%	152,300±25%
Total Active Goose Hunters[b]	6,500±28%	12,200±17%	22,200±12%	32,700±9%	34,600±10%	37,000±9%
Total Goose Hunter Days Afield[b]	17,800±47%	81,200±37%	78,000±22%	198,400±15%	124,900±20%	198,400±17%
Seasonal Goose Harvest Per Hunter[b]	5.3±74%	4.1±43%	4.0±30%	7.4±23%	3.6±28%	4.1±27%
Active Waterfowl Hunters[c]	36,100±8%	55,600±5%	34,500±8%	48,900±7%	58,400±6%	64,200±6%
Sample Sizes						
DuckWings	2,926	2,795	971	1,304	1,321	1,890
GooseTails	31	34	387	488	157	303

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2022 and 2023 hunting seasons.

	Mississippi		Missouri		Ohio	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	29,970	90,963	106,035	235,048	22,857	55,087
Domestic Mallard	263	0	0	0	0	0
Black Duck	0	0	0	0	2,540	4,194
Mallard x Black Hybrid	0	0	0	0	115	0
Mottled Duck	263	0	0	0	0	0
Gadwall	19,191	67,519	31,877	57,844	2,424	7,830
Wigeon	1,052	3,751	5,313	17,445	1,270	3,915
Green-winged Teal	14,722	106,905	44,274	136,346	2,540	11,744
Blue-winged/Cinnamon Teal	1,840	938	17,488	55,548	4,733	3,635
Northern Shoveler	8,938	17,817	11,068	39,481	462	2,796
Northern Pintail	1,052	17,817	7,526	29,381	2,655	8,109
Wood Duck	16,562	70,332	6,420	17,445	9,697	14,541
Redhead	263	0	2,656	0	1,039	839
Canvasback	263	0	885	459	231	280
Greater Scaup	526	0	1,107	918	1,039	559
Lesser Scaup	526	938	5,977	8,722	1,732	1,678
Ring-necked Duck	2,892	4,689	3,542	14,690	693	2,237
Goldeneyes	0	0	2,214	2,295	346	839
Bufflehead	526	938	2,656	459	1,732	6,711
Ruddy Duck	0	0	0	0	231	839
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	526	0	0	0	231	559
Hooded Merganser	3,680	0	664	9,182	577	839
Other Mergansers	0	0	443	459	231	4,194
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	103,100±39%	382,600±9%	250,100±29%	625,700±19%	57,400±28%	131,400±22%
Total Active Duck Hunters[a]	10,400±18%	28,300±5%	25,600±10%	40,500±7%	13,000±13%	20,000±9%
Total Duck Hunter Days Afield[a]	39,000±30%	195,000±7%	108,000±26%	317,400±12%	46,600±27%	146,700±16%
Seasonal Duck Harvest Per Hunter[a]	9.9±43%	13.5±10%	9.8±31%	15.4±20%	4.4±31%	6.6±24%
Goose Species Composition						
Canada Goose	1,146	14,100	31,295	88,504	50,261	96,764
Cackling Goose	0	0	608	0	0	0
Snow Goose	353	0	2,431	15,139	0	0
Blue Goose	441	0	2,431	10,481	0	0
Ross' Goose	264	1,410	1,823	10,481	0	0
White-fronted Goose	793	15,510	1,519	6,987	0	0
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	3,000±59%	31,000±31%	40,100±41%	131,600±33%	50,300±26%	96,800±33%
Total Active Goose Hunters[b]	2,200±45%	7,100±11%	12,600±19%	19,100±13%	12,300±14%	16,600±11%
Total Goose Hunter Days Afield[b]	5,600±74%	31,700±18%	34,400±34%	123,700±23%	46,000±29%	121,100±19%
Seasonal Goose Harvest Per Hunter[b]	1.4±75%	4.4±33%	3.2±45%	6.9±35%	4.1±29%	5.8±35%
Active Waterfowl Hunters[c]	10,400±18%	28,700±5%	28,100±10%	41,700±7%	17,100±10%	22,500±9%
Sample Sizes						
DuckWings	392	408	1,130	1,363	497	470
GooseTails	34	44	132	113	133	230

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2022 and 2023 hunting seasons.

	Tennessee		Wisconsin		Flyway Total	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	66,346	180,099	93,544	91,653	981,547	1,618,440
Domestic Mallard	0	0	3,164	1,024	3,902	2,180
Black Duck	990	1,154	396	1,280	11,589	21,041
Mallard x Black Hybrid	0	0	198	0	313	2,038
Mottled Duck	0	0	0	0	5,866	7,849
Gadwall	39,609	101,594	13,646	12,545	371,974	807,584
Wigeon	5,941	13,854	3,955	5,632	64,724	109,116
Green-winged Teal	33,668	94,667	51,815	47,874	555,419	1,088,286
Blue-winged/Cinnamon Teal	1,980	8,081	37,774	23,041	419,913	600,728
Northern Shoveler	4,951	24,244	2,769	6,400	110,989	243,402
Northern Pintail	4,951	9,236	7,515	6,656	75,268	171,966
Wood Duck	30,697	96,976	67,241	89,605	384,182	826,475
Redhead	0	2,309	7,911	9,216	40,922	64,565
Canvasback	0	0	2,967	3,328	27,344	55,024
Greater Scaup	0	0	5,142	8,192	11,131	24,160
Lesser Scaup	3,961	8,081	9,295	17,665	49,530	116,427
Ring-necked Duck	12,873	26,553	13,053	8,448	160,342	252,428
Goldeneyes	0	1,154	5,537	7,680	20,549	30,521
Bufflehead	4,951	13,854	11,866	20,225	53,728	134,224
Ruddy Duck	0	2,309	1,187	768	4,001	18,187
Long-tailed Duck	0	0	1,582	512	8,698	30,715
Eiders	0	0	0	0	0	0
Scoters	0	0	396	1,792	3,847	9,042
Hooded Merganser	1,980	11,545	2,373	4,352	28,178	64,060
Other Mergansers	0	2,309	989	3,328	3,331	13,345
Other Ducks	0	0	0	0	5,223	3,472
Total Duck Harvest	212,900±52%	598,000±22%	344,300±15%	371,200±11%	3,402,500±7%	6,315,300±5%
Total Active Duck Hunters[a]	20,300±14%	32,700±10%	41,000±7%	55,000±5%	337,900	477,100
Total Duck Hunter Days Afield[a]	98,000±39%	269,100±16%	207,700±13%	349,900±10%	1,533,800±6%	3,460,600±3%
Seasonal Duck Harvest Per Hunter[a]	10.5±53%	18.3±24%	8.4±17%	6.8±12%		
Goose Species Composition						
Canada Goose	13,852	37,112	101,946	157,204	570,700	1,110,118
Cackling Goose	0	0	2,109	1,737	6,713	8,179
Snow Goose	0	0	0	0	23,107	46,554
Blue Goose	0	1,856	0	0	8,777	28,798
Ross' Goose	0	3,711	0	0	7,670	37,025
White-fronted Goose	2,770	5,567	0	434	86,663	184,483
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	16,600±85%	48,200±44%	104,100±32%	159,400±26%	703,600±11%	1,415,200±8%
Total Active Goose Hunters[b]	7,300±29%	14,400±18%	27,700±10%	38,800±7%	183,400	260,600
Total Goose Hunter Days Afield[b]	30,900±75%	112,200±32%	134,800±23%	245,600±15%	674,200±9%	1,661,100±6%
Seasonal Goose Harvest Per Hunter[b]	2.3±90%	3.4±47%	3.8±34%	4.1±27%		
Active Waterfowl Hunters[c]	21,600±13%	33,800±10%	46,300±6%	60,800±5%	374,700	511,200
Sample Sizes						
DuckWings	215	518	1,741	1,450	13,260	15,655
GooseTails	18	26	296	367	1,925	2,366

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2022 and 2023 hunting seasons.

	Colorado		Kansas		Nebraska	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	22,263	30,571	55,986	105,745	31,221	51,701
Domestic Mallard	0	0	0	0	0	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	3,331	7,643	11,232	37,900	6,646	11,733
Wigeon	4,306	9,368	6,845	21,523	4,810	9,533
Green-winged Teal	5,931	16,765	21,236	104,809	21,251	48,217
Blue-winged/Cinnamon Teal	3,494	6,163	11,583	27,606	22,388	71,318
Northern Shoveler	1,056	4,191	2,282	11,230	1,399	1,650
Northern Pintail	1,056	986	1,580	11,697	1,137	3,117
Wood Duck	244	1,233	3,686	5,147	1,749	2,383
Redhead	488	1,233	2,457	3,743	875	1,650
Canvasback	163	0	527	1,872	262	917
Greater Scaup	0	0	176	0	0	0
Lesser Scaup	1,056	493	878	468	437	0
Ring-necked Duck	569	4,191	4,037	5,615	875	550
Goldeneyes	2,925	2,712	13,163	1,872	0	183
Bufflehead	163	247	1,580	468	0	0
Ruddy Duck	163	0	351	936	437	0
Long-tailed Duck	0	0	351	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	325	493	351	2,807	0	550
Other Mergansers	325	986	0	0	0	0
Other Ducks	81	0	0	0	87	0
Total Duck Harvest	47,900±26%	87,300±20%	138,300±23%	343,400±25%	93,600±39%	203,500±26%
Total Active Duck Hunters[a]	8,200±15%	11,600±10%	20,800±11%	26,500±8%	11,100±13%	17,200±9%
Total Duck Hunter Days Afield[a]	29,500±28%	61,000±17%	60,500±21%	147,100±17%	43,500±32%	109,500±23%
Seasonal Duck Harvest Per Hunter[a]	5.8±30%	7.5±22%	6.6±26%	12.9±26%	8.4±41%	11.8±27%
Goose Species Composition						
Canada Goose	40,100	51,303	60,897	51,091	69,815	126,278
Cackling Goose	13,824	29,441	11,711	25,152	5,489	19,819
Snow Goose	2,513	4,372	5,153	24,366	878	4,530
Blue Goose	457	291	468	6,288	439	1,133
Ross' Goose	571	1,166	2,342	9,432	439	566
White-fronted Goose	0	583	937	10,218	659	1,133
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	57,500±46%	87,200±32%	81,500±30%	126,500±29%	77,700±54%	153,500±39%
Total Active Goose Hunters[b]	7,500±17%	10,100±11%	13,400±15%	16,500±13%	9,900±16%	15,400±11%
Total Goose Hunter Days Afield[b]	29,600±33%	57,300±21%	40,600±31%	80,600±20%	50,500±51%	100,700±25%
Seasonal Goose Harvest Per Hunter[b]	7.7±49%	8.6±34%	6.1±33%	7.7±31%	7.8±57%	10.0±41%
Active Waterfowl Hunters[c]	10,900±13%	13,800±9%	23,200±10%	28,700±8%	13,500±11%	20,000±8%
Sample Sizes						
DuckWings	590	354	788	734	1,070	1,110
GooseTails	503	299	174	161	354	271

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2022 and 2023 hunting seasons.

	New Mexico		North Dakota		Oklahoma	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	2,783	8,278	70,870	181,235	62,338	155,316
Domestic Mallard	33	0	0	0	0	0
Black Duck	0	0	252	335	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	1,000	3,288	59,016	90,450	23,057	98,837
Wigeon	1,718	4,462	12,863	35,510	6,405	30,887
Green-winged Teal	2,098	9,746	44,388	67,670	18,360	93,543
Blue-winged/Cinnamon Teal	457	2,994	61,286	52,595	4,697	20,297
Northern Shoveler	609	2,583	23,707	44,890	0	7,060
Northern Pintail	402	1,526	16,141	38,525	2,562	17,650
Wood Duck	217	294	757	3,685	5,551	7,060
Redhead	152	470	19,672	32,160	854	3,530
Canvasback	130	117	9,836	7,035	854	11,472
Greater Scaup	0	0	252	1,005	0	0
Lesser Scaup	54	528	5,549	10,385	0	5,295
Ring-necked Duck	870	1,057	6,053	7,705	11,101	29,122
Goldeneyes	902	1,292	504	1,340	427	1,765
Bufflehead	272	881	4,792	4,020	854	2,647
Ruddy Duck	87	294	504	3,350	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	54	0	504	335	1,281	6,177
Other Mergansers	174	235	0	0	0	0
Other Ducks	163	822	0	0	0	0
Total Duck Harvest	12,200±59%	38,900±24%	336,900±12%	582,200±12%	138,300±30%	490,700±8%
Total Active Duck Hunters[a]	2,100±39%	4,400±9%	27,000±8%	41,700±6%	18,000±15%	30,900±3%
Total Duck Hunter Days Afield[a]	7,100±52%	21,100±14%	92,600±11%	201,600±10%	61,900±34%	191,800±7%
Seasonal Duck Harvest Per Hunter[a]	5.8±70%	8.9±26%	12.5±14%	13.9±13%	7.7±33%	15.9±9%
Goose Species Composition						
Canada Goose	3,620	1,353	64,992	71,615	48,011	48,869
Cackling Goose	883	728	2,981	5,898	25,418	48,869
Snow Goose	221	1,041	11,925	37,914	2,824	2,384
Blue Goose	0	0	11,329	36,229	0	0
Ross' Goose	132	2,081	5,366	20,642	2,824	1,192
White-fronted Goose	0	0	4,174	7,161	2,824	4,768
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	4,900±105%	5,200±37%	100,800±34%	179,500±23%	81,900±71%	106,100±21%
Total Active Goose Hunters[b]	900±51%	1,800±15%	18,800±11%	30,000±9%	7,600±31%	16,200±6%
Total Goose Hunter Days Afield[b]	6,200±81%	5,900±23%	47,800±19%	145,600±16%	26,800±60%	63,700±12%
Seasonal Goose Harvest Per Hunter[b]	5.3±117%	2.9±40%	5.4±35%	6.0±25%	10.8±78%	6.6±22%
Active Waterfowl Hunters[c]	2,400±36%	4,600±9%	29,600±7%	44,000±6%	18,600±15%	31,800±3%
Sample Sizes						
DuckWings	1,120	662	1,336	1,738	324	556
GooseTails	110	50	169	426	58	89

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2022 and 2023 hunting seasons.

	South Dakota		Texas		Wyoming	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	32,081	56,172	69,287	53,155	6,166	28,997
Domestic Mallard	0	0	0	0	0	0
Black Duck	133	0	0	412	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	1,626	5,769	0	0
Gadwall	17,366	24,803	177,609	276,075	2,467	414
Wigeon	7,556	13,496	81,648	112,902	2,941	1,657
Green-winged Teal	23,464	27,721	211,113	476,333	2,467	6,214
Blue-winged/Cinnamon Teal	17,631	22,980	223,149	415,761	1,897	4,557
Northern Shoveler	5,965	11,672	56,601	146,279	759	828
Northern Pintail	5,568	4,559	41,637	84,471	474	1,657
Wood Duck	1,988	1,459	35,782	63,456	95	414
Redhead	4,772	5,471	51,721	74,994	95	0
Canvasback	928	1,094	11,710	6,593	95	0
Greater Scaup	0	182	2,602	3,296	0	0
Lesser Scaup	1,193	1,824	16,915	33,376	95	0
Ring-necked Duck	4,905	2,006	67,010	80,762	854	0
Goldeneyes	0	0	0	412	379	1,657
Bufflehead	3,712	3,100	8,458	3,708	0	0
Ruddy Duck	0	730	1,301	4,533	474	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	412	0	0
Hooded Merganser	795	912	2,602	10,713	95	0
Other Mergansers	398	0	1,626	2,060	0	0
Other Ducks	0	0	1,952	4,945	0	0
Total Duck Harvest	128,500±30%	178,200±22%	1,064,400±21%	1,860,400±10%	19,400±44%	46,400±18%
Total Active Duck Hunters[a]	9,600±14%	12,400±11%	73,200±7%	141,500±5%	3,300±24%	4,800±7%
Total Duck Hunter Days Afield[a]	39,000±24%	72,900±21%	323,500±17%	755,000±9%	8,900±37%	23,800±13%
Seasonal Duck Harvest Per Hunter[a]	13.3±33%	14.4±25%	14.5±22%	13.1±12%	5.8±50%	9.7±19%
Goose Species Composition						
Canada Goose	42,258	31,107	17,448	20,251	21,553	17,261
Cackling Goose	745	1,752	23,652	53,328	1,461	4,823
Snow Goose	2,420	10,515	15,897	18,226	365	508
Blue Goose	1,862	4,381	3,490	5,400	0	0
Ross' Goose	186	4,819	8,530	16,876	91	0
White-fronted Goose	1,303	3,067	5,428	8,100	0	0
Brant	0	0	0	0	0	0
Other Geese	0	0	388	675	0	0
Total Goose Harvest	48,800±63%	55,600±33%	74,800±40%	122,900±29%	23,500±37%	22,600±17%
Total Active Goose Hunters[b]	6,300±21%	9,300±14%	17,400±17%	38,600±12%	3,900±22%	4,300±8%
Total Goose Hunter Days Afield[b]	18,700±32%	46,700±27%	45,900±32%	112,700±21%	9,000±33%	18,500±15%
Seasonal Goose Harvest Per Hunter[b]	7.7±66%	6.0±36%	4.3±43%	3.2±32%	6.0±43%	5.3±19%
Active Waterfowl Hunters[c]	10,900±13%	14,300±10%	79,000±7%	149,900±5%	5,200±16%	6,100±5%
Sample Sizes						
DuckWings	969	977	3,272	4,515	204	112
GooseTails	262	127	193	182	257	89

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2022 and 2023 hunting seasons.

	Flyway Total	
Duck Species Composition	2022	2023
Mallard	352,996	671,169
Domestic Mallard	33	0
Black Duck	385	747
Mallard x Black Hybrid	0	0
Mottled Duck	1,626	5,769
Gadwall	301,724	551,144
Wigeon	129,091	239,339
Green-winged Teal	350,309	851,017
Blue-winged/Cinnamon Teal	346,583	624,270
Northern Shoveler	92,378	230,383
Northern Pintail	70,557	164,189
Wood Duck	50,068	85,131
Redhead	81,086	123,250
Canvasback	24,505	29,100
Greater Scaup	3,030	4,484
Lesser Scaup	26,177	52,369
Ring-necked Duck	96,273	131,008
Goldeneyes	18,301	11,232
Bufflehead	19,829	15,071
Ruddy Duck	3,318	9,841
Long-tailed Duck	351	0
Eiders	0	0
Scoters	0	412
Hooded Merganser	6,008	21,988
Other Mergansers	2,523	3,281
Other Ducks	2,284	5,767
Total Duck Harvest	1,979,400±12%	3,831,000±6%
Total Active Duck Hunters[a]	173,400	291,000
Total Duck Hunter Days Afield[a]	666,300±10%	1,583,800±5%
Seasonal Duck Harvest Per Hunter[a]		
Goose Species Composition		
Canada Goose	368,693	419,127
Cackling Goose	86,163	189,811
Snow Goose	42,197	103,856
Blue Goose	18,045	53,722
Ross' Goose	20,483	56,775
White-fronted Goose	15,325	35,030
Brant	0	0
Other Geese	388	675
Total Goose Harvest	551,300±18%	859,000±11%
Total Active Goose Hunters[b]	85,700	142,100
Total Goose Hunter Days Afield[b]	275,100±14%	631,700±8%
Seasonal Goose Harvest Per Hunter[b]		
Active Waterfowl Hunters[c]	193,400	313,300
Sample Sizes		
DuckWings	9,673	10,758
GooseTails	2,080	1,694

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2022 and 2023 hunting seasons.

	Arizona		California		Idaho	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	3,794	7,189	96,180	151,067	140,683	92,315
Domestic Mallard	0	0	370	762	0	421
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	2,004	3,410	46,795	63,056	5,511	3,368
Wigeon	2,506	4,332	113,566	125,921	15,461	16,000
Green-winged Teal	3,866	11,706	181,077	305,373	11,175	10,947
Blue-winged/Cinnamon Teal	644	1,198	16,092	51,054	918	316
Northern Shoveler	2,935	3,595	149,449	162,497	4,286	2,737
Northern Pintail	430	830	59,928	79,248	1,837	1,789
Wood Duck	215	92	6,844	24,003	3,062	2,526
Redhead	286	737	2,959	5,906	765	421
Canvasback	215	737	5,919	12,573	1,072	211
Greater Scaup	0	0	555	953	0	105
Lesser Scaup	72	1,106	6,104	10,097	918	632
Ring-necked Duck	2,434	2,857	14,057	19,622	2,449	2,000
Goldeneyes	143	369	5,549	4,572	14,084	5,579
Bufflehead	644	1,106	12,392	15,050	2,143	947
Ruddy Duck	430	553	7,768	3,429	0	211
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	647	852	0	0
Hooded Merganser	430	0	555	2,096	459	526
Other Mergansers	286	184	370	381	765	316
Other Ducks	72	1,843	0	381	153	0
Total Duck Harvest	21,400±85%	41,800±20%	727,200±11%	1,038,900±10%	205,700±34%	141,400±14%
Total Active Duck Hunters[a]	2,900±34%	6,400±8%	38,100±5%	57,800±5%	14,200±12%	14,200±5%
Total Duck Hunter Days Afield[a]	8,100±61%	29,500±14%	241,900±22%	470,100±9%	62,400±27%	69,200±10%
Seasonal Duck Harvest Per Hunter[a]	7.4±92%	6.5±21%	19.1±12%	18.0±11%	14.5±37%	10.0±15%
Goose Species Composition						
Canada Goose	1,226	3,152	32,113	77,032	50,609	18,658
Cackling Goose	0	0	3,479	39,854	547	257
Snow Goose	981	0	82,690	52,960	2,188	3,088
Blue Goose	245	0	268	1,070	0	0
Ross' Goose	245	1,051	29,169	14,444	274	772
White-fronted Goose	245	0	44,423	65,531	274	257
Brant	0	0	1,931	451	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	2,900±120%	4,200±59%	194,100±24%	251,300±31%	53,900±41%	23,000±24%
Total Active Goose Hunters[b]	600±82%	2,100±16%	18,300±8%	30,700±8%	9,200±17%	7,900±8%
Total Goose Hunter Days Afield[b]	1,600±97%	7,900±27%	97,000±17%	240,000±15%	38,900±35%	32,200±14%
Seasonal Goose Harvest Per Hunter[b]	5.0±146%	2.0±62%	10.6±25%	8.2±32%	5.9±45%	2.9±26%
Active Waterfowl Hunters[c]	3,100±32%	6,600±8%	40,200±4%	60,300±5%	16,100±11%	15,200±5%
Sample Sizes						
DuckWings	299	454	3,934	5,480	1,344	1,343
GooseTails	12	4	724	948	197	179

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2022 and 2023 hunting seasons.

	Montana		Nevada		Oregon	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	37,479	55,246	7,552	9,510	104,544	84,122
Domestic Mallard	200	0	0	0	0	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	4,309	10,670	4,796	4,808	6,745	5,183
Wigeon	6,414	12,804	4,079	2,564	54,978	64,028
Green-winged Teal	5,512	18,020	7,938	5,503	41,645	44,333
Blue-winged/Cinnamon Teal	2,104	5,928	496	801	392	80
Northern Shoveler	1,904	4,031	4,741	3,473	17,568	16,824
Northern Pintail	1,503	3,082	1,929	1,977	22,979	20,492
Wood Duck	701	1,186	165	107	4,941	5,183
Redhead	802	1,423	386	1,549	706	478
Canvasback	501	1,660	221	2,030	1,333	1,754
Greater Scaup	100	0	0	0	784	797
Lesser Scaup	902	1,897	165	267	2,902	2,950
Ring-necked Duck	1,002	711	992	1,229	8,784	7,415
Goldeneyes	10,422	13,515	221	267	2,196	1,196
Bufflehead	3,908	2,608	276	374	8,705	4,385
Ruddy Duck	501	948	221	321	235	0
Long-tailed Duck	0	0	0	0	40	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	101	0
Hooded Merganser	301	474	165	107	1,412	1,196
Other Mergansers	701	474	110	53	863	239
Other Ducks	0	0	0	0	0	301
Total Duck Harvest	79,300±29%	134,700±42%	34,500±58%	34,900±17%	281,900±23%	261,000±17%
Total Active Duck Hunters[a]	13,300±13%	16,300±12%	2,900±23%	3,700±7%	15,000±9%	18,300±8%
Total Duck Hunter Days Afield[a]	40,000±26%	66,100±24%	11,300±45%	22,100±12%	96,300±17%	116,600±13%
Seasonal Duck Harvest Per Hunter[a]	5.9±32%	8.3±44%	11.7±63%	9.4±18%	18.8±25%	14.2±18%
Goose Species Composition						
Canada Goose	46,617	51,829	4,593	2,611	17,310	16,907
Cackling Goose	1,486	3,334	230	79	16,563	21,714
Snow Goose	1,351	606	0	79	7,597	497
Blue Goose	0	0	0	0	0	0
Ross' Goose	540	303	77	0	2,615	166
White-fronted Goose	405	303	153	40	1,121	1,492
Brant	0	0	0	0	0	16
Other Geese	0	0	0	0	0	0
Total Goose Harvest	50,400±34%	56,400±42%	5,100±78%	2,800±32%	45,200±37%	40,800±27%
Total Active Goose Hunters[b]	10,200±17%	12,300±16%	900±46%	1,700±13%	6,600±15%	9,800±13%
Total Goose Hunter Days Afield[b]	32,600±30%	45,400±27%	3,400±64%	8,200±22%	34,500±27%	52,500±24%
Seasonal Goose Harvest Per Hunter[b]	4.9±38%	4.6±45%	5.4±91%	1.6±34%	6.9±40%	4.2±30%
Active Waterfowl Hunters[c]	15,500±12%	18,500±11%	3,100±23%	3,800±7%	15,800±9%	19,600±8%
Sample Sizes						
DuckWings	791	568	625	654	3,599	3,270
GooseTails	373	186	66	71	363	247

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2022 and 2023 hunting seasons.

	Utah		Washington		Flyway Total	
Duck Species Composition	2022	2023	2022	2023	2022	2023
Mallard	27,064	59,603	110,483	181,294	527,780	640,345
Domestic Mallard	165	0	0	353	735	1,536
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	11,387	34,225	8,431	15,872	89,978	140,592
Wigeon	7,591	19,557	75,124	115,161	279,719	360,367
Green-winged Teal	20,958	71,011	44,294	58,903	316,465	525,796
Blue-winged/Cinnamon Teal	4,786	15,832	629	529	26,062	75,738
Northern Shoveler	8,004	27,939	12,835	32,097	201,722	253,192
Northern Pintail	8,911	20,256	19,379	25,219	116,896	152,893
Wood Duck	83	233	2,391	9,523	18,401	42,853
Redhead	1,485	5,821	1,762	1,587	9,152	17,922
Canvasback	743	1,397	3,272	882	13,274	21,244
Greater Scaup	0	0	2,894	1,940	4,334	3,795
Lesser Scaup	990	1,630	5,285	3,174	17,338	21,753
Ring-necked Duck	1,320	1,630	13,590	11,992	44,629	47,456
Goldeneyes	1,073	931	507	801	34,194	27,230
Bufflehead	1,073	2,794	7,550	9,700	36,692	36,964
Ruddy Duck	83	698	252	176	9,489	6,336
Long-tailed Duck	0	0	70	57	110	57
Eiders	0	0	0	0	0	0
Scoters	0	233	840	858	1,587	1,943
Hooded Merganser	0	233	881	2,116	4,202	6,748
Other Mergansers	248	466	1,510	1,764	4,854	3,877
Other Ducks	0	0	126	0	351	2,526
Total Duck Harvest	96,000±24%	264,500±8%	312,100±17%	474,000±19%	1,758,000±8%	2,391,200±7%
Total Active Duck Hunters[a]	14,000±10%	19,600±2%	23,600±6%	26,800±7%	124,000	163,100
Total Duck Hunter Days Afield[a]	42,600±20%	130,100±5%	104,500±13%	184,500±14%	607,100±10%	1,088,200±5%
Seasonal Duck Harvest Per Hunter[a]	6.9±26%	13.5±8%	13.1±18%	17.6±20%		
Goose Species Composition						
Canada Goose	13,675	25,713	27,161	25,573	193,303	221,475
Cackling Goose	427	735	12,296	20,961	35,028	86,934
Snow Goose	285	735	12,296	19,704	107,388	77,669
Blue Goose	0	0	0	0	513	1,070
Ross' Goose	0	0	5,506	210	38,426	16,945
White-fronted Goose	0	0	551	629	47,171	68,252
Brant	0	0	506	657	2,437	1,125
Other Geese	0	0	0	0	0	0
Total Goose Harvest	14,400±34%	27,200±15%	58,300±30%	67,700±25%	424,300±14%	473,500±18%
Total Active Goose Hunters[b]	6,400±19%	9,700±4%	11,600±11%	12,500±13%	63,700	86,800
Total Goose Hunter Days Afield[b]	17,300±30%	52,100±8%	37,200±22%	59,400±23%	262,600±10%	497,500±8%
Seasonal Goose Harvest Per Hunter[b]	2.3±39%	2.8±15%	5.0±32%	5.4±28%		
Active Waterfowl Hunters[c]	15,700±9%	20,200±2%	26,300±6%	28,400±7%	135,900	172,600
Sample Sizes						
DuckWings	1,163	1,136	2,550	2,738	14,305	15,643
GooseTails	101	37	318	323	2,154	1,995

Table 1E. Preliminary estimates of waterfowl harvest and hunter activity in Alaska and the United States during the 2022 and 2023 hunting seasons.

	Alaska		United States Total	
Duck Species Composition	2022	2023	2022	2023
Mallard	10,808	16,212	2,042,668	3,218,184
Domestic Mallard	0	0	5,018	7,204
Black Duck	0	0	61,524	110,986
Mallard x Black Hybrid	0	0	4,177	3,944
Mottled Duck	0	0	15,649	28,322
Gadwall	727	752	807,757	1,570,881
Wigeon	7,902	13,206	495,783	754,435
Green-winged Teal	5,268	9,448	1,351,121	2,739,952
Blue-winged/Cinnamon Teal	0	0	846,050	1,386,242
Northern Shoveler	1,544	3,328	423,528	754,278
Northern Pintail	4,541	12,991	276,826	526,622
Wood Duck	0	0	764,201	1,624,013
Redhead	91	322	137,269	221,004
Canvasback	91	107	68,814	112,611
Greater Scaup	182	215	28,701	47,016
Lesser Scaup	454	644	123,913	299,614
Ring-necked Duck	545	1,074	395,954	579,358
Goldeneyes	3,451	1,396	79,520	81,913
Bufflehead	727	215	171,432	301,624
Ruddy Duck	0	0	24,124	51,806
Long-tailed Duck	735	0	17,412	49,324
Eiders	0	0	1,516	5,437
Scoters	2,205	3,931	24,619	73,716
Hooded Merganser	0	0	63,230	139,631
Other Mergansers	980	437	25,153	47,679
Other Ducks	1,960	874	16,466	19,789
Total Duck Harvest	42,200±17%	65,100±30%	8,272,400±5%	14,755,600±3%
Total Active Duck Hunters[a]	4,600±8%	5,600±12%	815,400	1,189,200
Total Duck Hunter Days Afield[a]	14,600±14%	27,500±25%	3,504,000±4%	7,704,100±2%
Seasonal Duck Harvest Per Hunter[a]	7.8±19%	10.7±32%		
Goose Species Composition				
Canada Goose	648	1,050	1,422,004	2,382,156
Cackling Goose	2,268	764	130,171	287,353
Snow Goose	324	95	182,081	236,271
Blue Goose	0	0	27,763	83,916
Ross' Goose	324	0	67,084	110,745
White-fronted Goose	324	1,146	149,500	289,191
Brant	1,702	2,348	8,033	11,376
Other Geese	0	95	388	771
Total Goose Harvest	5,600±31%	5,500±83%	1,987,000±7%	3,401,800±6%
Total Active Goose Hunters[b]	1,600±18%	1,700±31%	414,100	627,100
Total Goose Hunter Days Afield[b]	4,700±26%	5,600±42%	1,470,700±6%	3,487,800±4%
Seasonal Goose Harvest Per Hunter[b]	2.5±36%	1.9±89%		
Active Waterfowl Hunters[c]	5,300±7%	5,900±12%	913,700	1,292,300
Sample Sizes				
DuckWings	424	570	45,055	53,167
GooseTails	23	51	8,920	9,794

[a] Duck hunter statistics do not include sea duck hunter statistics for states that have (or had) special sea duck seasons or sea duck permits: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Virginia, California, Oregon, Washington, and Alaska. (Refer to Table 3.)

[b] 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.)

[c] 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.

[d] We could not calculate a reasonable estimate of goose harvest, active hunters, or days afield for Florida for the 2022-23 hunting season due to insufficient data.

Table 2. Flyway-specific point estimates of duck and goose harvest in Colorado, Montana, New Mexico, and Wyoming during the 2022 and 2023 hunting seasons.

	2022		2023	
	Central Flyway	Pacific Flyway	Central Flyway	Pacific Flyway
Duck harvest				
Colorado	40,100	7,900	67,100	20,200
Montana	22,900	56,300	50,300	84,400
New Mexico	9,400	2,800	37,800	1,100
Wyoming	15,100	4,300	34,000	12,400
Goose harvest				
Colorado	50,800	6,600	78,100	9,000
Montana	25,500	24,900	28,800	27,600
New Mexico	3,300	1,500	4,700	500
Wyoming	23,200	300	19,000	3,600

Table 3. Preliminary estimates of sea duck harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2022 and 2023 hunting seasons. [a, b]

	Sea Duck Harvest [c]		Active Sea Duck Hunters [d]		Sea Duck Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Connecticut	100 ± 96%	900 ± 76%	100 ± 61%	100 ± 47%	200 ± 71%	600 ± 76%	0.8 ± 113%	7.5 ± 89%
Delaware	400 ± 157%	700 ± 60%	100 ± 107%	100 ± 44%	200 ± 108%	400 ± 60%	2.9 ± 190%	4.6 ± 74%
Maine	4,100 ± 57%	4,500 ± 52%	800 ± 47%	1,300 ± 61%	1,600 ± 46%	3,100 ± 52%	5.0 ± 74%	3.6 ± 80%
Maryland	8,400 ± 21%	22,400 ± 19%	2,100 ± 19%	4,300 ± 17%	3,400 ± 22%	9,300 ± 19%	4.0 ± 29%	5.3 ± 26%
Massachusetts	4,100 ± 22%	6,000 ± 62%	800 ± 17%	1,000 ± 53%	1,900 ± 20%	3,700 ± 62%	5.0 ± 28%	5.9 ± 82%
New Hampshire	400 ± 89%	200 ± 81%	100 ± 87%	200 ± 145%	200 ± 68%	300 ± 81%	4.5 ± 124%	0.8 ± 166%
New Jersey	2,400 ± 46%	4,500 ± 58%	600 ± 33%	1,100 ± 60%	1,300 ± 39%	4,800 ± 58%	4.1 ± 56%	4.0 ± 83%
New York	2,800 ± 42%	11,600 ± 50%	800 ± 36%	1,900 ± 39%	2,100 ± 46%	8,700 ± 50%	3.6 ± 56%	6.1 ± 63%
Rhode Island	500 ± 70%	800 ± 62%	100 ± 70%	200 ± 31%	200 ± 64%	700 ± 62%	3.3 ± 99%	4.5 ± 69%
Virginia	2,200 ± 52%	7,100 ± 79%	1,000 ± 37%	1,800 ± 56%	1,900 ± 42%	7,200 ± 79%	2.2 ± 63%	3.9 ± 97%
Atlantic Flyway Total	25,400 ± 15%	58,600 ± 18%	6,600	12,000	13,200 ± 14%	38,800 ± 18%		
California	600 ± 58%	900 ± 61%	200 ± 38%	200 ± 29%	200 ± 45%	1,000 ± 61%	4.2 ± 69%	4.7 ± 67%
Oregon	100 ± 87%	300 ± 64%	100 ± 62%	100 ± 40%	100 ± 66%	200 ± 64%	2.0 ± 107%	2.7 ± 75%
Washington	1,400 ± 39%	1,700 ± 38%	400 ± 28%	600 ± 22%	1,100 ± 43%	1,600 ± 38%	3.9 ± 48%	2.8 ± 44%
Pacific Flyway Total	2,200 ± 31%	2,900 ± 30%	600	900	1,400 ± 34%	2,900 ± 30%		
Alaska	5,900 ± 28%	5,200 ± 49%	1,300 ± 22%	1,000 ± 52%	2,800 ± 26%	3,100 ± 49%	4.6 ± 36%	5.0 ± 71%
United States Total	33,400 ± 12%	66,700 ± 16%	8,400	14,000	17,400 ± 12%	44,800 ± 16%		

[a] Although states in the Atlantic Flyway no longer have special sea duck seasons, sea duck estimates are provided for comparison with past years.

[b] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[c] Sea ducks include long-tailed ducks, eiders, and scoters in the Atlantic Flyway; long-tailed ducks, scoters, and harlequin ducks in California and Oregon; long-tailed ducks, scoters, harlequin ducks, and goldeneyes in Washington; and long-tailed ducks, eiders, scoters, harlequin ducks, and mergansers in Alaska.

[d] 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 more than 1 state. Variance inestimable.

Table 4. Preliminary estimates of brant harvest and hunter activity for states in brant wintering areas during the 2022 and 2023 hunting seasons.[a]

	Brant Harvest		Active Brant Hunters[b]		Brant Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Connecticut	100 ± 139%	400 ± 164%	100 ± 109%	200 ± 155%	400 ± 113%	500 ± 164%	0.6 ± 177%	1.9 ± 226%
Delaware	<50 ± 141%	200 ± 98%	200 ± 86%	100 ± 51%	300 ± 88%	500 ± 98%	0.3 ± 165%	1.4 ± 111%
Maryland	100 ± 172%	100 ± 88%	200 ± 85%	800 ± 92%	200 ± 92%	1,400 ± 88%	0.6 ± 192%	0.1 ± 127%
Massachusetts	200 ± 45%	100 ± 76%	300 ± 32%	200 ± 37%	500 ± 44%	700 ± 76%	0.8 ± 55%	0.5 ± 85%
New Hampshire	0	0	0	200 ± 185%	0	300	0	0
New Jersey	1,600 ± 32%	3,200 ± 46%	1,200 ± 20%	1,700 ± 39%	2,800 ± 25%	4,400 ± 46%	1.3 ± 38%	1.9 ± 60%
New York	1,200 ± 43%	2,000 ± 38%	800 ± 35%	1,100 ± 42%	2,000 ± 46%	5,400 ± 38%	1.5 ± 56%	1.9 ± 56%
North Carolina	100 ± 67%	200 ± 89%	900 ± 37%	1,200 ± 75%	2,300 ± 49%	2,500 ± 89%	0.1 ± 76%	0.2 ± 116%
Rhode Island	100 ± 130%	100 ± 62%	100 ± 70%	100 ± 43%	300 ± 74%	500 ± 62%	0.5 ± 147%	1.1 ± 75%
Virginia	200 ± 97%	1,100 ± 94%	500 ± 47%	700 ± 77%	1,000 ± 52%	1,300 ± 94%	0.4 ± 108%	1.6 ± 121%
Atlantic Flyway Total	3,700 ± 22%	7,500 ± 28%	4,200	6,200	10,000 ± 18%	17,400 ± 28%		
California	600 ± 91%	500 ± 85%	500 ± 52%	800 ± 75%	1,400 ± 62%	1,100 ± 85%	1.1 ± 105%	0.6 ± 113%
Oregon	0	<50 ± 154%	<50 ± 137%	<50 ± 95%	<50 ± 144%	<50 ± 154%		1.0 ± 181%
Washington	100 ± 61%	200 ± 68%	100 ± 52%	300 ± 31%	200 ± 63%	500 ± 68%	1.4 ± 81%	0.8 ± 75%
Pacific Flyway Total	700 ± 74%	700 ± 59%	600	1,100	1,500 ± 54%	1,600 ± 59%		
Alaska	1,700 ± 29%	2,300 ± 37%	500 ± 28%	700 ± 46%	1,400 ± 30%	3,100 ± 37%	3.1 ± 40%	3.4 ± 59%
United States Total	6,100 ± 18%	10,600 ± 22%	5,400	7,900	12,900 ± 16%	22,200 ± 22%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 more than 1 state. Variance inestimable.

Table 5. Preliminary harvest estimates for special September teal and teal/wood duck seasons during the 2022 and 2023 hunting seasons.

	Harvest										Number of wings received	
	Green-winged teal		Blue-winged/cinnamon teal		Wood ducks		Other ducks		Total ducks harvested			
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
September Teal Seasons												
Delaware	311	2,275	881	0	0	0	0	0	1,191	2,275	23	12
Georgia	0	0	3,197	4,188	0	0	0	0	3,197	4,188	12	10
Maryland	214	2,664	0	400	0	666	0	266	214	3,995	1	30
North Carolina	807	2,630	404	3,156	0	0	0	0	1,211	5,786	3	22
South Carolina	386	0	386	0	0	0	0	0	771	0	2	0
Virginia	582	546	0	0	0	0	0	0	582	546	3	2
Atlantic Flyway Total	2,300	8,114	4,866	7,743	0	666	0	266	7,166	16,789	44	76
Alabama	0	0	3,101	9,746	0	0	0	0	3,101	9,746	8	13
Arkansas	531	3,746	10,097	22,477	0	749	0	0	10,628	26,972	20	72
Illinois	2,601	1,350	14,044	4,948	0	0	0	0	16,644	6,298	64	14
Indiana	796	1,408	1,990	9,294	0	0	0	0	2,786	10,703	21	38
Iowa	1,347	4,809	9,539	17,174	0	0	0	0	10,886	21,983	97	96
Louisiana	1,488	5,495	76,998	140,898	0	0	0	0	78,486	146,393	422	373
Michigan	2,721	3,736	6,279	6,227	0	0	0	0	9,000	9,964	43	32
Minnesota	2,656	5,972	46,806	49,433	0	0	0	0	49,462	55,405	149	167
Mississippi	0	0	1,052	0	0	0	0	0	1,052	0	4	0
Missouri	2,435	5,968	15,496	52,794	0	0	0	0	17,931	58,762	81	128
Ohio	577	2,796	4,040	2,796	0	0	0	0	4,618	5,593	40	20
Wisconsin	791	3,840	6,526	5,632	198	256	0	256	7,515	9,985	38	39
Mississippi Flyway Total	15,943	39,120	195,968	321,421	198	1,005	0	256	212,109	361,802	987	992
Colorado	325	247	488	1,972	0	0	81	0	894	2,219	11	9
Kansas	2,984	3,275	10,004	24,799	0	0	0	0	12,987	28,074	74	60
Nebraska	3,673	8,983	13,118	47,667	0	0	0	0	16,791	56,651	192	309
New Mexico	22	1,057	174	1,820	0	0	0	0	196	2,877	18	49
Oklahoma	0	1,765	4,697	15,002	0	882	0	0	4,697	17,650	11	20
Texas	18,867	28,844	171,753	305,331	0	0	325	0	190,945	334,175	587	811
Central Flyway Total	25,870	44,171	200,233	396,591	0	882	407	0	226,510	441,644	893	1,258
Season Type Total	44,113	91,404	401,068	725,756	198	2,554	407	522	445,785	820,236	1,924	2,326
September Teal and Wood Duck Seasons												
Florida	0	0	1,681	17,466	1,293	998	0	0	2,974	18,465	23	74
Kentucky	205	0	409	401	3,071	4,411	0	0	3,685	4,812	18	12
Tennessee	0	0	990	6,927	6,932	5,772	0	0	7,922	12,699	8	11
Season Type Total	205	0	3,080	24,794	11,296	11,181	0	0	14,581	35,976	49	97
United States Total	44,317	91,404	404,149	750,550	11,493	13,735	407	522	460,366	856,212	1,973	2,423

Table 6. Preliminary estimates of the number of Canada geese harvested during the special September and regular/late seasons during the 2022 and 2023 hunting seasons.

	September season		Regular/late Season		Total	
	2022	2023	2022	2023	2022	2023
Connecticut	2,100	3,800	3,400	8,600	5,500	12,400
Delaware	700	3,200	9,500	19,500	10,200	22,700
Florida	N/A[a]	0	N/A[a]	2,500	N/A[a]	2,500
Georgia	400	34,300	3,100	23,800	3,500	58,200
Maine	5,200	6,700	3,000	10,600	8,200	17,400
Maryland	700	4,000	43,000	104,000	43,700	108,000
Massachusetts	2,200	3,600	6,900	11,700	9,100	15,300
New Hampshire	0	1,300	3,500	5,200	3,500	6,500
New Jersey	4,800	800	6,400	24,900	11,200	25,800
New York	56,700	55,100	18,600	50,000	75,200	105,100
North Carolina	2,100	7,600	26,800	24,400	28,900	32,000
Pennsylvania	16,900	46,200	25,500	56,200	42,400	102,400
Rhode Island	100	300	1,300	2,000	1,400	2,300
South Carolina	1,300	12,300	2,200	12,300	3,500	24,500
Vermont	0	5,500	15,700	7,200	15,700	12,700
Virginia	3,300	23,100	20,300	53,200	23,600	76,200
West Virginia	900	1,200	2,200	5,200	3,100	6,400
Atlantic Flyway	97,200	209,100	191,400	421,300	288,700	630,400
Colorado	300	0	39,800	51,300	40,100	51,300
Kansas	0	0	60,900	51,100	60,900	51,100
Nebraska	0	0	69,800	126,300	69,800	126,300
New Mexico	0	0	3,600	1,400	3,600	1,400
North Dakota	8,300	13,900	56,600	57,700	65,000	71,600
Oklahoma	0	0	48,000	48,900	48,000	48,900
South Dakota	12,300	2,200	30,000	28,900	42,300	31,100
Texas	0	0	17,400	20,300	17,400	20,300
Wyoming	100	3,600	21,500	13,700	21,600	17,300
Central Flyway	21,100	19,600	347,600	399,500	368,700	419,100
Arizona	0	0	1,200	3,200	1,200	3,200
California	0	0	32,100	77,000	32,100	77,000
Idaho	500	0	50,100	18,700	50,600	18,700
Montana	0	0	46,600	51,800	46,600	51,800
Nevada	0	0	4,600	2,600	4,600	2,600
Oregon	1,200	800	16,100	16,100	17,300	16,900
Utah	0	0	13,700	25,700	13,700	25,700
Washington	3,100	4,400	24,000	21,200	27,200	25,600
Pacific Flyway	4,900	5,200	188,400	216,200	193,300	221,500
Alaska	0	0	600	1,100	600	1,100
United States	123,200	233,900	1,298,800	2,148,200	1,422,000	2,382,200

[a] We could not calculate a reasonable estimate of goose harvest, active hunters, or days afield for Florida for the 2022-23 hunting season due to insufficient data.

Table 7. Waterfowl harvest estimates in Canada during the 2022 and 2023 hunting seasons (estimates courtesy of the Canadian Wildlife Service).[a]

	Newfoundland		Prince Edward Isl.		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba	
Duck Species Composition	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Mallard	120		817		1,967		5,059		38,577		63,441		26,801	
Black Duck	3,945		2,496		11,424		7,987		14,244		8,152		101	
Gadwall	1		56		19		66		789		2,418		3,821	
Wigeon	30		42		310		575		983		4,772		3,270	
Green-winged Teal	1,496		499		2,326		3,381		11,323		8,988		6,677	
Blue-winged/Cinnamon Teal	39		67		205		744		1,452		4,152		12,449	
Northern Shoveler	1		4		8		76		189		480		5,399	
Northern Pintail	155		15		170		222		1,978		2,244		4,369	
Wood Duck	41		22		360		1,499		8,618		28,436		993	
Redhead	1		0		2		5		180		4,289		3,592	
Canvasback	0		0		2		0		30		1,827		3,660	
Greater Scaup	332		6		195		222		1,294		3,391		266	
Lesser Scaup	127		16		123		155		1,074		5,658		4,490	
Ring-necked Duck	1293		88		282		1,204		2,171		10,284		1,927	
Goldeneyes	469		21		224		1,351		1,168		3,233		924	
Bufflehead	5		4		408		113		502		6,002		2,861	
Ruddy Duck	0		9		2		7		9		444		91	
Long-tailed Duck	356		5		360		99		496		456		1	
Eiders	3,675		2		500		245		804		13		10	
Scoters	388		10		1,169		283		1,136		558		47	
Hooded Merganser	108		7		252		116		1,331		3,475		366	
Other Mergansers	1,481		39		517		80		855		1,310		15	
Other Ducks	1		0		4		0		3		6		0	
Total Duck Harvest	14,064		4,225		20,829		23,489		89,206		164,029		82,130	
Goose Species Composition														
Canada Goose	2,353		8,437		8,858		12,228		92,250		138,345		54,740	
Snow Goose	3		0		15		32		30,107		253		3,107	
Blue Goose	0		0		0		0		110		27		5,271	
Ross's Goose	0		2		0		0		1		9		1,623	
White-fronted Goose	0		0		10		0		4		32		653	
Brant	2		0		0		0		12		46		0	
Total Goose Harvest	2,358		8,439		8,883		12,260		122,484		138,712		65,394	
Migratory Bird Permits Sold	8,186		1,086		4,171		4,897		26,789		45,455		6,810	

Table 7 (continued). Waterfowl harvest estimates in Canada during the 2022 and 2023 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

	Saskatchewan		Alberta		British Columbia		Nunavut		Northwest Terr.		Yukon Territory		Canada Total	
Duck Species Composition	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Mallard	83,590		65,785		23,705		0		201		423		310,486	
Black Duck	35		14		2		0		0		0		48,400	
Gadwall	14,146		13,343		599		0		0		0		35,258	
Wigeon	4,634		8,778		4,898		0		248		53		28,593	
Green-winged Teal	5,649		5,304		1,204		0		106		53		47,006	
Blue-winged/Cinnamon Teal	11,155		7,500		124		0		2		1		37,890	
Northern Shoveler	6,435		4,606		248		0		77		39		17,562	
Northern Pintail	8,335		12,810		1,900		0		9		93		32,300	
Wood Duck	448		53		85		0		0		0		40,555	
Redhead	1,504		1,846		20		0		2		0		11,441	
Canvasback	792		751		31		0		4		1		7,098	
Greater Scaup	40		158		13		0		4		2		5,923	
Lesser Scaup	772		2,432		97		0		99		62		15,105	
Ring-necked Duck	283		547		109		0		10		21		18,219	
Goldeneyes	236		691		193		0		62		34		8,606	
Bufflehead	490		2,110		144		0		92		14		12,745	
Ruddy Duck	51		318		56		0		3		0		990	
Long-tailed Duck	0		0		0		0		1		0		1,774	
Eiders	0		0		0		0		3		0		5,252	
Scoters	15		21		30		0		14		3		3,674	
Hooded Merganser	210		140		54		0		0		0		6,059	
Other Mergansers	0		114		23		0		4		2		4,440	
Other Ducks	0		0		1		0		0		1		16	
Total Duck Harvest	138,820		127,321		33,536		0		941		802		699,392	
Goose Species Composition														
Canada Goose	145,646		112,236		11,559		0		18		160		586,830	
Snow Goose	37,740		20,899		1,801		0		46		0		94,003	
Blue Goose	9,379		503		15		0		0		0		15,305	
Ross's Goose	19,579		3,331		34		0		0		0		24,579	
White-fronted Goose	29,044		37,295		171		0		4		2		67,215	
Brant	0		0		0		0		0		0		60	
Total Goose Harvest	241,388		174,264		13,580		0		68		162		787,992	
Migratory Bird Permits Sold	13,086		21,756		7,127		45		220		302		139,930	

[a] Canadian harvest estimates for the 2023-24 hunting season were not available as of the release date of this report.

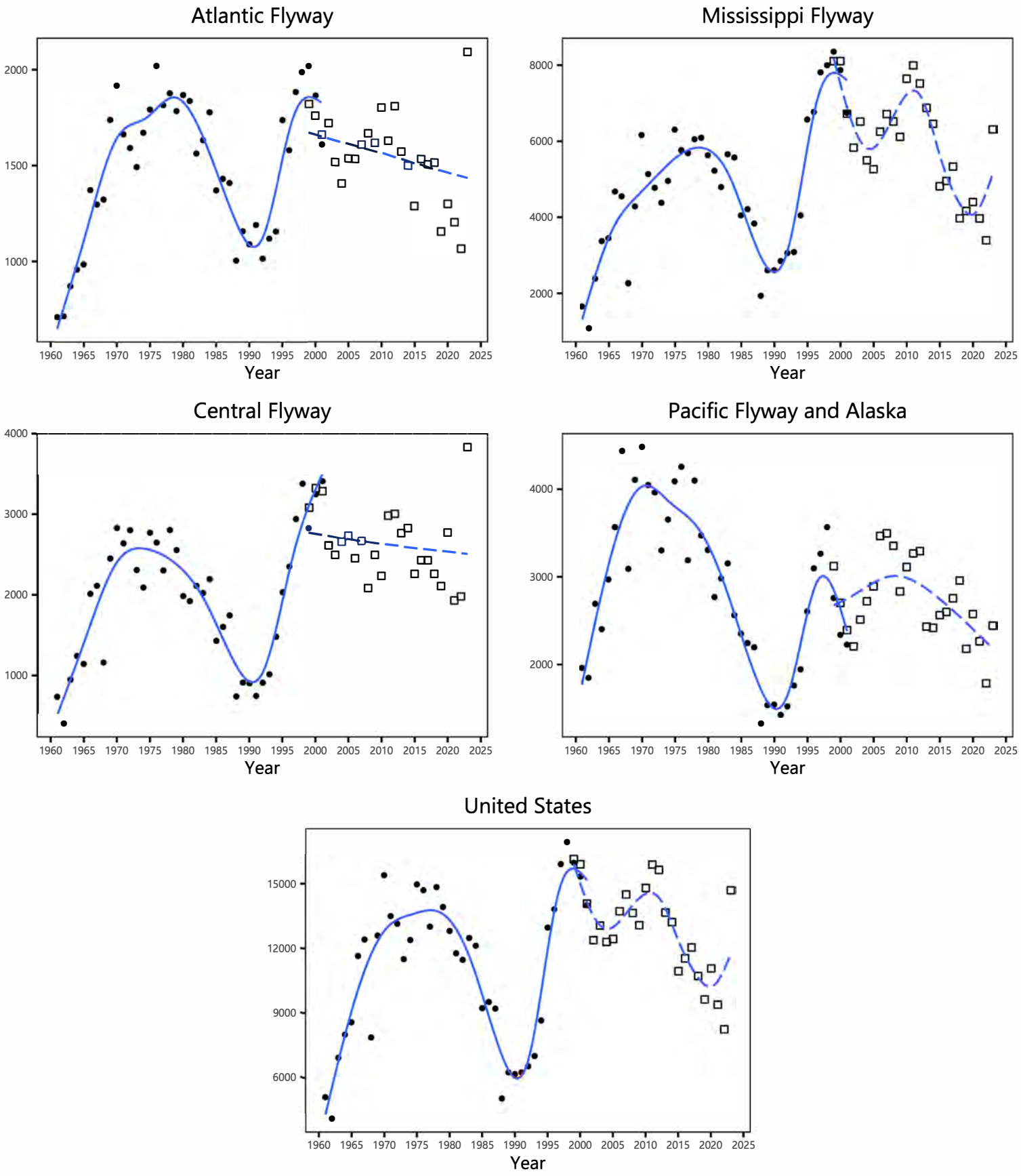

Figure 1. Number of ducks harvested (in thousands) by hunters in the United States, 1961–2023. (Federal Duck Stamp Survey – circles and solid line; HIP survey – squares and dashed line.)

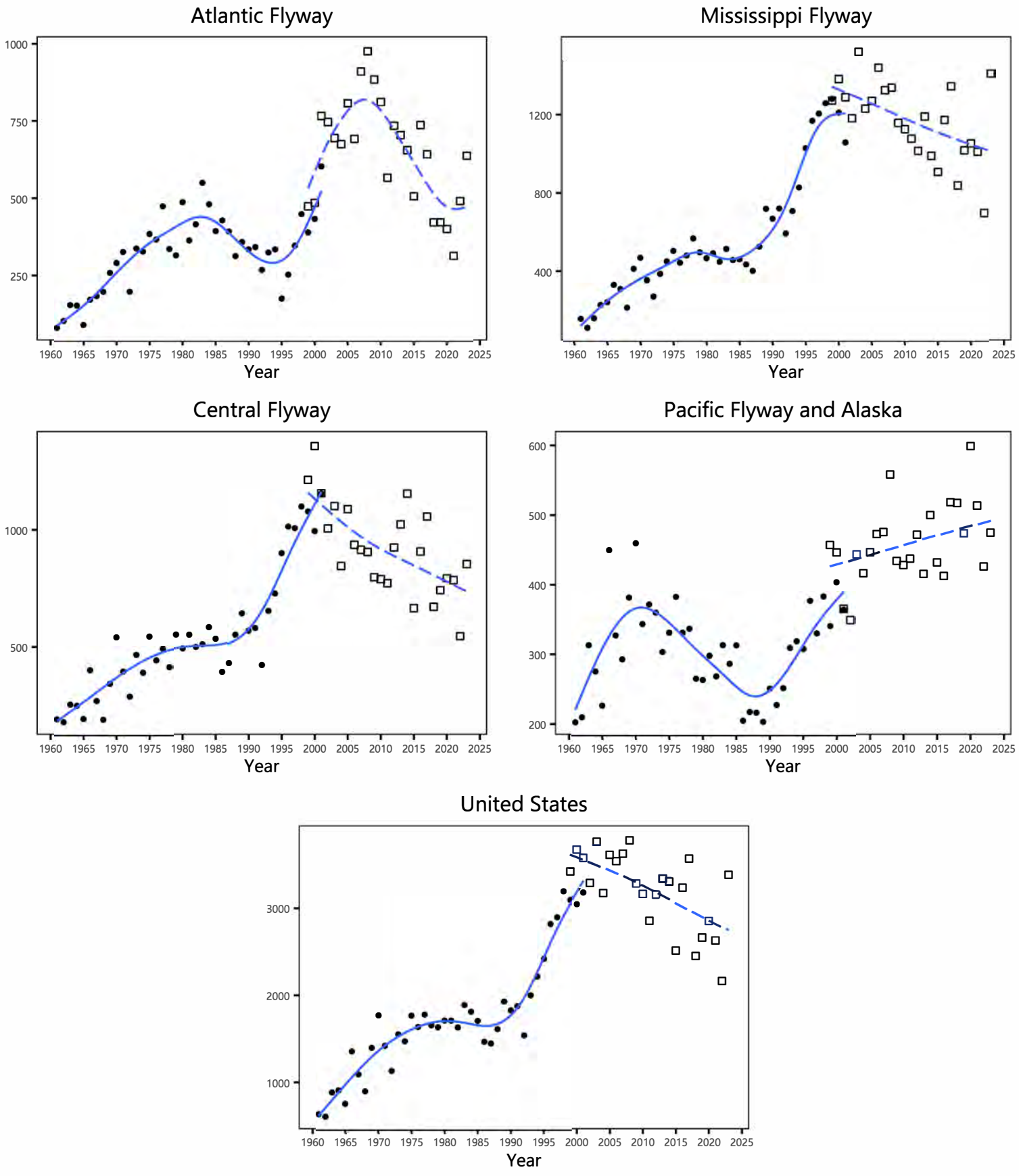

Figure 2. Number of geese harvested (in thousands) by hunters in the United States, 1961–2023. (Federal Duck Stamp Survey – circles and solid line; HIP survey – squares and dashed line.)

Table 8. Preliminary weighted age ratios of mallards in state harvests during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Immatures per adult [a, b]				
	2019	2020	2021	2022	2023
Connecticut	1.24	0.96	0.87	1.05	2.05
Delaware	2.80	1.73	1.58	0.80	1.56
Florida	--	--	--	--	--
Georgia	0.52	0.56	0.71	0.60	1.31
Maine	1.56	1.32	0.40	1.43	2.16
Maryland	1.14	0.82	1.06	0.96	1.12
Massachusetts	1.03	2.18	1.22	1.07	1.32
New Hampshire	2.39	1.83	0.44	1.59	1.77
New Jersey	1.37	0.71	0.78	0.52	1.13
New York	1.71	1.49	1.34	1.11	2.03
North Carolina	0.77	0.95	0.84	1.25	1.28
Pennsylvania	1.18	0.98	1.12	1.09	1.26
Rhode Island	1.53	1.16	0.60	0.96	0.92
South Carolina	1.19	1.20	2.82	--	5.00
Vermont	1.27	1.89	1.42	2.13	2.34
Virginia	0.81	0.77	0.72	0.98	1.23
West Virginia	0.80	0.72	0.71	0.62	0.62
Atlantic Flyway Total	1.19	1.06	0.98	1.09	1.51
Alabama	2.69	1.08	1.33	0.65	0.79
Arkansas	0.67	0.66	0.51	0.70	0.63
Illinois	1.33	1.60	1.11	1.64	1.72
Indiana	1.42	1.36	1.15	1.18	0.96
Iowa	1.95	1.74	1.64	2.40	2.38
Kentucky	1.03	1.01	0.74	1.11	0.49
Louisiana	0.57	0.94	0.55	0.89	0.63
Michigan	1.70	1.91	1.47	1.83	1.24
Minnesota	2.46	3.51	1.99	4.28	4.04
Mississippi	0.75	0.60	0.31	0.52	0.37
Missouri	0.96	1.17	0.93	1.25	1.10
Ohio	1.57	1.36	1.19	1.15	1.30
Tennessee	0.95	1.02	0.51	0.37	0.79
Wisconsin	2.25	2.38	2.52	3.05	1.80
Mississippi Flyway Total	1.05	1.19	0.85	1.12	0.98

Table 8 (continued). Preliminary weighted age ratios of mallards in state harvests during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Immatures per adult [a, b]				
	2019	2020	2021	2022	2023
Colorado	0.86	0.99	0.82	0.97	1.19
Kansas	0.49	0.57	0.47	0.66	0.88
Montana	1.12	0.79	0.59	1.35	0.55
Nebraska	1.05	0.74	0.68	0.80	0.70
New Mexico	2.31	1.18	1.14	1.21	2.16
North Dakota	1.62	1.52	0.85	2.40	1.75
Oklahoma	0.50	0.47	0.40	0.68	0.77
South Dakota	1.99	1.68	0.99	1.63	1.63
Texas	0.67	0.48	0.50	0.73	0.57
Wyoming	0.61	0.63	0.45	1.08	1.94
Central Flyway Total	0.92	0.82	0.59	1.01	1.06
Arizona	1.00	0.83	1.19	0.61	0.59
California	1.69	1.18	0.81	1.22	2.18
Colorado	5.67	3.05	2.43	2.31	4.33
Idaho	0.80	0.72	0.65	0.78	1.11
Montana	0.86	0.80	0.71	1.26	0.91
Nevada	1.64	0.53	0.49	1.37	2.02
New Mexico	1.07	0.74	0.41	0.78	--
Oregon	1.12	1.06	1.06	1.64	2.17
Utah	1.13	1.05	0.68	1.62	1.44
Washington	1.01	1.16	0.83	1.01	1.52
Wyoming	2.41	1.79	1.39	--	3.60
Pacific Flyway Total	1.13	1.02	0.81	1.12	1.62
Alaska	4.73	3.29	2.93	3.33	3.55
United States Total	1.06	1.05	0.79	1.10	1.14

[a] Ratio not shown if based on a sample of less than 20 wings.

[b] 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 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Immatures per adult [a, b]				
	2019	2020	2021	2022	2023
Mallard					
Atlantic Flyway	1.19	1.06	0.98	1.09	1.51
Mississippi Flyway	1.05	1.19	0.85	1.12	0.98
Central Flyway	0.92	0.82	0.59	1.01	1.06
Pacific Flyway	1.13	1.02	0.81	1.12	1.62
United States Total	1.06	1.05	0.79	1.10	1.14
American Black Duck					
Atlantic Flyway	1.71	1.48	1.31	0.87	1.42
Mississippi Flyway	1.76	2.16	1.56	1.51	1.25
United States Total	1.72	1.60	1.35	0.95	1.38
Mottled Duck					
Atlantic Flyway	2.90	2.01	2.01	1.53	2.86
Mississippi Flyway	1.06	1.10	1.38	1.17	1.22
Central Flyway	1.64	1.05	1.15	--	--
United States Total	1.65	1.31	1.65	1.50	2.30
Gadwall					
Atlantic Flyway	0.71	0.70	0.50	2.75	0.99
Mississippi Flyway	1.05	1.06	0.50	1.27	1.16
Central Flyway	1.25	1.31	0.57	1.25	1.17
Pacific Flyway	1.45	0.92	0.52	1.02	1.43
United States Total	1.14	1.12	0.53	1.29	1.17
American Wigeon					
Atlantic Flyway	1.07	1.00	1.62	1.30	1.33
Mississippi Flyway	1.46	1.64	2.29	2.28	1.36
Central Flyway	1.15	1.13	1.50	1.08	1.36
Pacific Flyway	1.21	1.10	1.19	1.66	1.96
United States Total	1.24	1.16	1.39	1.55	1.63
American Green-Winged Teal					
Atlantic Flyway	1.78	1.82	1.82	1.69	1.95
Mississippi Flyway	1.30	1.80	1.59	1.84	1.64
Central Flyway	1.81	1.49	2.01	2.15	1.92
Pacific Flyway	1.10	0.83	0.84	1.17	1.20
United States Total	1.34	1.33	1.39	1.71	1.65
Blue-winged/Cinnamon Teal					
Atlantic Flyway	1.31	2.25	1.34	1.82	0.96
Mississippi Flyway	1.36	1.58	1.03	1.96	1.32
Central Flyway	1.74	1.53	1.44	1.64	2.13
Pacific Flyway	0.81	0.71	1.31	1.72	0.75
United States Total	1.44	1.54	1.20	1.80	1.55

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Immatures per adult [a, b]				
	2019	2020	2021	2022	2023
Northern Shoveler					
Atlantic Flyway	0.82	1.09	0.88	1.72	1.31
Mississippi Flyway	1.48	1.43	0.89	1.98	1.46
Central Flyway	2.64	2.26	1.17	1.91	1.84
Pacific Flyway	0.99	1.11	1.09	1.28	1.30
United States Total	1.46	1.45	1.04	1.58	1.51
Northern Pintail					
Atlantic Flyway	1.56	1.84	0.91	2.35	3.20
Mississippi Flyway	1.29	1.62	1.60	1.75	1.42
Central Flyway	1.38	1.18	1.43	1.10	1.24
Pacific Flyway	0.99	0.84	0.79	0.99	1.27
United States Total	1.17	1.12	1.15	1.24	1.39
Wood Duck					
Atlantic Flyway	1.41	0.93	1.25	1.30	1.47
Mississippi Flyway	1.45	1.01	0.96	1.05	0.97
Central Flyway	1.74	1.12	1.08	1.22	1.98
Pacific Flyway	1.53	1.82	1.17	1.44	1.44
United States Total	1.46	1.00	1.06	1.16	1.21
Redhead					
Atlantic Flyway	0.77	1.01	0.70	2.24	2.26
Mississippi Flyway	1.83	2.18	0.82	3.17	3.67
Central Flyway	1.81	1.81	0.85	2.15	1.79
Pacific Flyway	3.05	1.53	0.58	1.93	2.59
United States Total	1.73	1.79	0.76	2.39	2.28
Canvasback					
Atlantic Flyway	--	0.60	0.51	1.92	1.49
Mississippi Flyway	1.42	1.82	1.19	1.42	2.36
Central Flyway	1.22	2.11	0.84	1.27	1.51
Pacific Flyway	1.23	1.08	0.99	1.08	1.27
United States Total	1.30	1.44	0.99	1.32	1.80
Greater Scaup					
Atlantic Flyway	0.96	0.75	0.83	3.05	2.53
Mississippi Flyway	2.39	1.95	1.61	1.90	2.40
Central Flyway	0.70	--	--	--	--
Pacific Flyway	1.86	1.27	0.70	1.49	0.90
United States Total	1.59	1.27	1.01	2.30	2.08

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Immatures per adult [a, b]				
	2019	2020	2021	2022	2023
Lesser Scaup					
Atlantic Flyway	0.90	0.76	1.77	0.85	1.07
Mississippi Flyway	1.18	0.68	1.38	1.18	1.43
Central Flyway	0.89	0.92	1.03	1.55	1.13
Pacific Flyway	2.71	2.18	1.40	3.33	3.55
United States Total	1.16	0.87	1.36	1.31	1.31
Ring-Necked Duck					
Atlantic Flyway	1.56	1.64	1.62	2.44	2.08
Mississippi Flyway	1.47	1.82	1.66	1.67	1.85
Central Flyway	1.19	0.97	1.70	1.46	2.43
Pacific Flyway	2.93	1.93	3.00	1.88	2.10
United States Total	1.55	1.50	1.79	1.79	2.04
Common Goldeneye					
Atlantic Flyway	0.89	1.12	0.56	0.44	0.35
Mississippi Flyway	1.51	0.81	0.66	1.16	0.98
Central Flyway	0.95	0.31	0.54	0.42	0.68
Pacific Flyway	1.26	0.70	1.18	0.87	1.62
United States Total	1.25	0.65	0.73	0.79	0.96
Bufflehead					
Atlantic Flyway	1.04	0.98	0.92	1.25	1.02
Mississippi Flyway	1.14	0.89	0.96	0.93	0.85
Central Flyway	0.95	0.69	0.60	0.75	1.15
Pacific Flyway	1.34	1.19	1.10	1.05	0.60
United States Total	1.10	0.94	0.93	1.04	0.89
Hooded Merganser					
Atlantic Flyway	1.07	1.07	0.91	0.93	1.16
Mississippi Flyway	1.38	1.44	1.07	1.19	1.41
Central Flyway	0.43	0.83	0.45	0.52	1.87
Pacific Flyway	1.94	0.91	3.25	1.25	1.87
United States Total	1.24	1.23	1.01	1.00	1.40
Common Merganser					
Atlantic Flyway	1.22	1.92	1.42	1.80	3.33
Mississippi Flyway	1.34	0.66	--	--	--
Central Flyway	--	--	--	0.41	--
Pacific Flyway	1.12	2.33	1.68	1.46	1.31
United States Total	1.19	1.40	1.25	1.56	2.59

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Immatures per adult [a, b]				
	2019	2020	2021	2022	2023
Long-tailed Duck					
Atlantic Flyway	0.30	0.38	0.90	0.58	0.55
Mississippi Flyway	1.64	0.44	0.59	0.91	0.76
United States Total	0.46	0.43	0.75	0.74	0.68
Common Eider					
Atlantic Flyway	0.29	0.99	0.13	--	0.16
United States Total	0.31	1.03	0.13	--	0.16
Black Scoter					
Atlantic Flyway	0.25	0.55	0.49	0.68	0.90
Pacific Flyway	--	--	--	--	--
United States Total	0.26	0.61	0.45	0.89	0.87
White-Winged Scoter					
Atlantic Flyway	0.60	1.43	1.28	--	--
Pacific Flyway	--	--	--	--	--
United States Total	0.87	1.86	1.71	2.46	2.12
Surf Scoter					
Atlantic Flyway	0.71	0.70	0.34	0.88	1.18
Pacific Flyway	0.50	0.22	1.03	0.20	0.29
United States Total	0.68	0.64	0.37	0.99	1.20

[a] Ratio not shown if based on a sample of less than 20 wings.

[b] 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 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Males per female [a, b]				
	2019	2020	2021	2022	2023
Connecticut	1.37	1.52	2.19	3.10	1.07
Delaware	1.02	1.43	1.54	2.60	2.07
Florida	--	--	--	--	--
Georgia	1.36	1.55	1.25	3.00	1.50
Maine	2.42	1.65	2.71	1.89	1.67
Maryland	1.79	2.15	1.97	2.06	1.69
Massachusetts	2.12	1.48	2.20	3.62	2.42
New Hampshire	1.50	1.91	2.70	1.67	1.55
New Jersey	1.63	2.42	1.95	2.82	2.45
New York	2.06	1.88	2.60	2.71	1.95
North Carolina	2.10	2.10	2.42	1.70	1.94
Pennsylvania	1.85	2.12	2.61	2.50	2.39
Rhode Island	2.06	1.96	2.00	2.06	3.17
South Carolina	1.66	1.62	1.63	--	1.31
Vermont	1.56	1.89	1.64	2.27	1.22
Virginia	1.95	2.92	2.89	2.57	2.91
West Virginia	2.75	1.39	3.46	3.53	2.93
Atlantic Flyway Total	1.85	2.02	2.24	2.24	1.97
Alabama	2.43	1.78	1.92	3.13	2.13
Arkansas	3.87	4.59	3.88	3.80	3.74
Illinois	2.19	2.37	2.54	1.89	2.25
Indiana	2.34	1.88	3.16	1.91	2.79
Iowa	2.48	1.76	2.10	2.14	2.18
Kentucky	2.16	2.38	3.24	3.68	3.00
Louisiana	4.53	3.69	2.83	3.67	4.20
Michigan	1.82	1.43	1.54	1.96	1.58
Minnesota	1.52	1.42	1.53	1.75	1.56
Mississippi	3.49	5.62	5.87	3.35	5.06
Missouri	3.97	3.49	3.25	3.48	3.45
Ohio	2.00	2.06	2.05	1.61	2.02
Tennessee	2.95	2.00	3.75	7.38	2.55
Wisconsin	2.21	1.66	1.56	1.66	1.78
Mississippi Flyway Total	2.82	2.60	2.80	2.79	2.67

Table 10 (continued). Preliminary weighted sex ratios of mallards in state harvests during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Males per female [a, b]				
	2019	2020	2021	2022	2023
Colorado	2.73	3.21	2.95	4.73	1.97
Kansas	6.71	5.39	4.66	5.13	4.95
Montana	4.88	3.11	3.54	2.94	3.81
Nebraska	4.47	4.46	4.48	5.38	6.21
New Mexico	2.25	2.08	3.33	1.88	1.84
North Dakota	2.45	2.78	3.11	1.80	2.78
Oklahoma	4.02	4.08	4.09	3.17	4.27
South Dakota	4.14	3.01	3.17	4.13	3.11
Texas	3.59	3.39	3.74	2.44	3.30
Wyoming	4.52	4.15	4.27	3.17	3.70
Central Flyway Total	3.65	3.59	3.84	3.04	3.58
Arizona	2.17	1.70	2.39	2.31	1.79
California	2.63	2.55	2.52	2.80	2.37
Colorado	1.93	1.20	1.67	1.93	1.00
Idaho	2.81	3.29	5.22	5.16	3.36
Montana	3.84	4.55	4.86	3.85	2.57
Nevada	1.56	2.69	1.73	1.63	2.30
New Mexico	1.82	2.38	2.46	2.07	--
Oregon	2.13	2.25	2.38	1.88	2.09
Utah	2.15	2.51	2.46	2.13	2.40
Washington	2.31	2.30	2.71	2.06	2.22
Wyoming	1.83	2.48	1.28	--	1.88
Pacific Flyway Total	2.44	2.67	3.01	2.71	2.36
Alaska	1.42	1.45	1.38	1.20	1.48
United States Total	2.74	2.71	2.96	2.74	2.68

[a] Ratio not shown if based on a sample of less than 20 wings.

[b] 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 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Males per female [a, b]				
	2019	2020	2021	2022	2023
Mallard					
Atlantic Flyway	1.85	2.02	2.24	2.24	1.97
Mississippi Flyway	2.83	2.60	2.80	2.79	2.68
Central Flyway	3.67	3.59	3.84	3.02	3.53
Pacific Flyway	2.45	2.66	3.02	2.72	2.37
United States Total	2.74	2.72	2.97	2.74	2.67
American Black Duck					
Atlantic Flyway	1.01	1.09	1.05	1.18	1.00
Mississippi Flyway	0.71	0.62	1.17	0.77	0.82
United States Total	0.93	0.97	1.07	1.09	0.96
Mottled Duck					
Atlantic Flyway	0.70	1.18	0.91	0.90	0.71
Mississippi Flyway	1.25	0.56	1.41	0.97	0.67
Central Flyway	1.64	0.87	1.55	--	--
United States Total	1.04	0.81	1.11	0.83	0.79
Gadwall					
Atlantic Flyway	2.30	1.92	2.35	1.07	1.45
Mississippi Flyway	1.84	2.10	2.18	1.85	1.91
Central Flyway	1.65	1.82	2.10	1.76	1.68
Pacific Flyway	1.70	1.94	2.44	1.81	2.05
United States Total	1.77	1.95	2.20	1.75	1.81
American Wigeon					
Atlantic Flyway	2.58	1.92	1.45	1.44	1.33
Mississippi Flyway	1.25	1.48	1.24	1.47	1.50
Central Flyway	1.83	1.73	1.73	1.49	1.76
Pacific Flyway	1.55	1.67	1.66	1.47	1.35
United States Total	1.57	1.66	1.59	1.46	1.49
American Green-Winged Teal					
Atlantic Flyway	1.18	1.57	1.38	1.41	1.46
Mississippi Flyway	1.91	1.93	2.11	1.81	1.78
Central Flyway	1.86	1.94	1.76	1.62	1.67
Pacific Flyway	1.92	1.68	1.57	1.42	1.56
United States Total	1.84	1.81	1.77	1.62	1.66
Blue-winged/Cinnamon Teal					
Atlantic Flyway	1.33	1.51	1.05	1.26	1.39
Mississippi Flyway	1.38	1.39	1.23	1.36	1.38
Central Flyway	1.36	1.50	1.30	1.67	1.39
Pacific Flyway	1.41	1.66	1.38	1.04	1.30
United States Total	1.37	1.45	1.24	1.46	1.38

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Males per female [a, b]				
	2019	2020	2021	2022	2023
Northern Shoveler					
Atlantic Flyway	1.40	1.82	2.16	1.38	1.54
Mississippi Flyway	1.67	1.82	1.71	1.47	1.56
Central Flyway	1.30	1.41	1.65	1.30	1.58
Pacific Flyway	1.79	1.65	1.72	1.66	1.60
United States Total	1.58	1.63	1.72	1.51	1.57
Northern Pintail					
Atlantic Flyway	2.16	1.70	1.50	2.05	1.44
Mississippi Flyway	2.49	2.17	1.83	2.16	2.21
Central Flyway	2.09	2.20	1.99	2.12	1.90
Pacific Flyway	3.30	3.29	2.75	2.63	2.42
United States Total	2.69	2.53	2.13	2.26	2.07
Wood Duck					
Atlantic Flyway	2.11	2.15	2.26	2.14	2.16
Mississippi Flyway	2.01	1.92	2.07	2.04	2.17
Central Flyway	2.36	2.31	1.86	3.69	2.09
Pacific Flyway	2.41	2.08	1.83	2.31	1.56
United States Total	2.08	2.03	2.12	2.16	2.14
Redhead					
Atlantic Flyway	1.41	1.12	2.10	1.76	1.85
Mississippi Flyway	1.37	1.36	1.85	1.97	1.10
Central Flyway	1.60	1.36	1.40	1.32	1.98
Pacific Flyway	1.45	1.41	2.01	1.66	1.24
United States Total	1.50	1.35	1.74	1.52	1.58
Canvasback					
Atlantic Flyway	--	1.08	1.62	1.45	0.46
Mississippi Flyway	1.66	1.15	1.24	1.51	1.51
Central Flyway	1.25	1.30	0.56	1.32	1.49
Pacific Flyway	1.63	1.06	1.27	1.23	1.28
United States Total	1.50	1.15	1.10	1.38	1.36
Greater Scaup					
Atlantic Flyway	1.24	1.07	1.31	1.90	2.04
Mississippi Flyway	1.28	2.79	1.12	1.06	0.87
Central Flyway	2.00	--	--	--	--
Pacific Flyway	1.41	1.19	1.40	1.68	0.58
United States Total	1.32	1.57	1.25	1.44	1.18

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Males per female [a, b]				
	2019	2020	2021	2022	2023
Lesser Scaup					
Atlantic Flyway	2.00	2.83	2.52	2.15	2.49
Mississippi Flyway	1.79	2.25	1.56	1.95	2.30
Central Flyway	2.40	1.85	1.62	1.24	3.39
Pacific Flyway	1.15	1.08	1.25	1.84	1.04
United States Total	1.87	1.99	1.60	1.80	2.36
Ring-Necked Duck					
Atlantic Flyway	1.49	1.50	1.20	1.47	1.09
Mississippi Flyway	2.02	2.05	1.88	1.95	2.15
Central Flyway	2.25	2.21	2.35	2.19	1.94
Pacific Flyway	2.19	1.50	1.94	2.28	1.49
United States Total	1.96	1.87	1.76	1.90	1.69
Common Goldeneye					
Atlantic Flyway	1.54	0.99	1.46	1.32	3.81
Mississippi Flyway	1.41	1.36	1.87	1.20	1.48
Central Flyway	0.90	1.67	1.64	2.10	1.02
Pacific Flyway	2.01	2.40	1.39	2.46	1.12
United States Total	1.58	1.74	1.62	1.85	1.43
Bufflehead					
Atlantic Flyway	1.81	1.96	1.92	1.39	1.35
Mississippi Flyway	1.23	1.65	1.20	1.34	1.61
Central Flyway	1.47	1.68	1.33	1.43	1.90
Pacific Flyway	1.33	1.66	1.20	1.62	1.79
United States Total	1.46	1.74	1.40	1.43	1.54
Hooded Merganser					
Atlantic Flyway	2.46	2.57	2.23	3.26	2.69
Mississippi Flyway	2.21	2.07	2.14	2.08	3.16
Central Flyway	--	7.89	6.92	--	2.82
Pacific Flyway	3.16	2.15	--	3.25	--
United States Total	2.37	2.49	2.34	2.46	2.84
Common Merganser					
Atlantic Flyway	0.75	0.58	0.81	0.93	0.99
Mississippi Flyway	0.78	0.99	--	--	--
Central Flyway	--	--	--	0.94	--
Pacific Flyway	0.84	1.03	1.12	0.74	0.92
United States Total	0.78	0.69	0.97	0.71	0.89

[a] Ratio not shown if based on a sample of less than 20 wings.

[b] 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 2019-2023 hunting seasons as determined from the Waterfowl Parts Collection Survey.

	Immatures per adult [a, b]				
	2019	2020	2021	2022	2023
Canada Goose					
Atlantic Flyway	0.41	0.48	0.40	0.36	0.46
Mississippi Flyway	0.36	0.37	0.36	0.33	0.32
Central Flyway	0.35	0.46	0.41	0.25	0.40
Pacific Flyway	0.36	0.36	0.28	0.24	0.42
United States Total	0.37	0.41	0.37	0.30	0.38
Cackling Goose					
Atlantic Flyway	--	--	--	--	--
Mississippi Flyway	--	--	4.44	--	--
Central Flyway	--	--	0.59	0.40	1.13
Pacific Flyway	--	--	0.57	0.58	1.00
United States Total	--	--	0.63	0.48	1.11
Snow Goose					
Atlantic Flyway	0.50	0.55	0.30	0.03	0.62
Mississippi Flyway	0.46	0.17	0.55	1.30	1.36
Central Flyway	0.36	0.23	0.27	0.54	0.63
Pacific Flyway	0.87	0.54	0.61	0.70	0.75
United States Total	0.56	0.35	0.46	0.66	0.77
Blue Goose					
Atlantic Flyway	1.59	--	--	--	--
Mississippi Flyway	0.20	0.30	0.22	1.01	1.26
Central Flyway	0.82	0.44	0.45	0.81	0.77
United States Total	0.65	0.39	0.33	0.89	0.94
Ross' Goose					
Mississippi Flyway	1.25	--	0.95	--	1.73
Central Flyway	0.97	0.53	0.77	1.54	1.09
Pacific Flyway	0.71	1.79	1.52	2.36	1.51
United States Total	0.92	0.88	1.06	2.36	1.33
Greater White-Fronted Goose					
Atlantic Flyway	--	--	--	--	--
Mississippi Flyway	--	--	--	--	--
Central Flyway	--	--	--	--	--
Pacific Flyway	--	--	--	--	--
United States Total	--	--	--	--	--
Brant					
Atlantic Flyway	0.20	0.26	0.14	0.08	0.87
Pacific Flyway	0.80	0.58	0.50	--	0.68
United States Total	0.29	0.33	0.32	0.16	0.81

[a] Ratio not shown if based on a sample of less than 20 wings.

[b] 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.

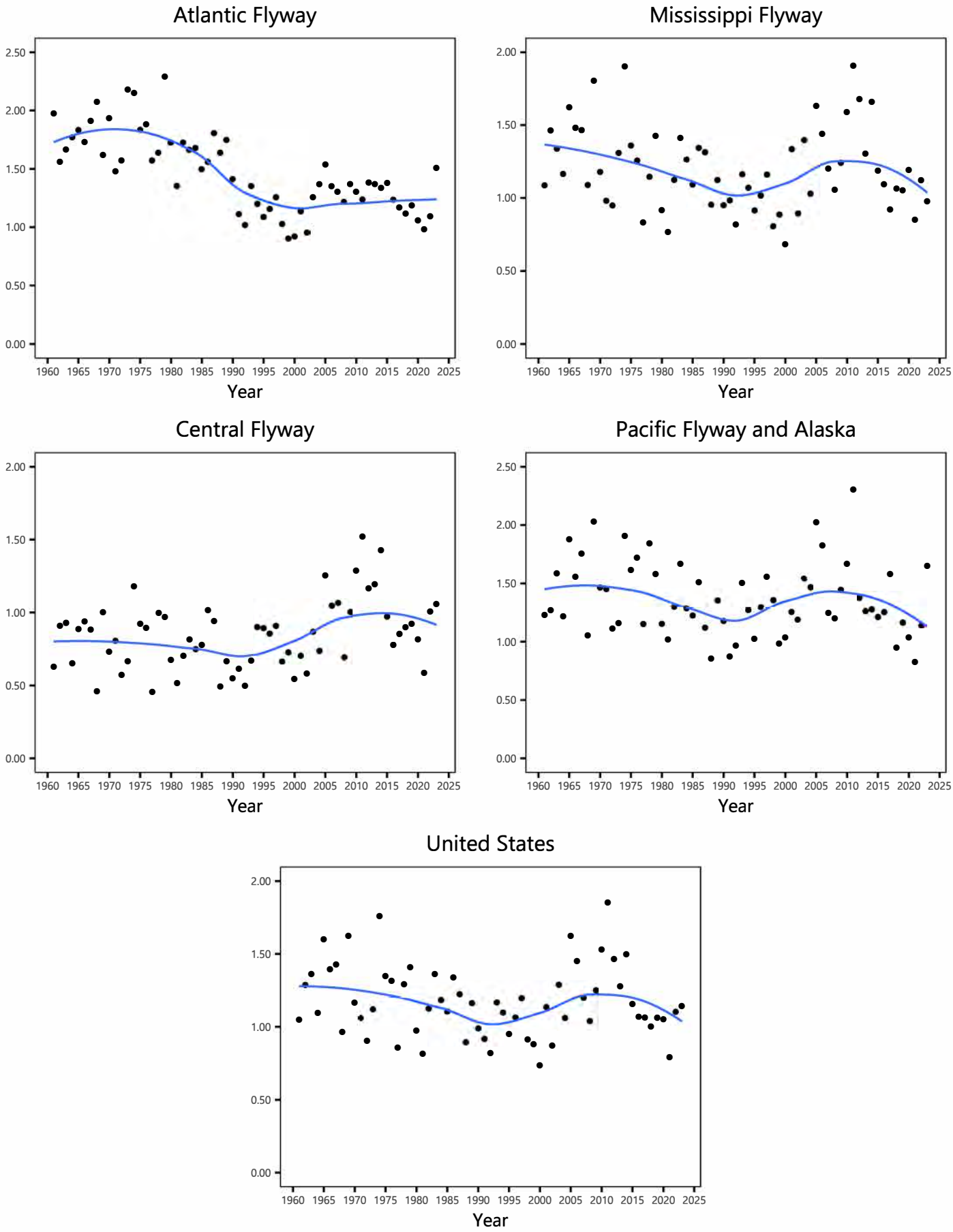

Figure 3. Age ratios of mallard harvested in the United States, 1961-2023.

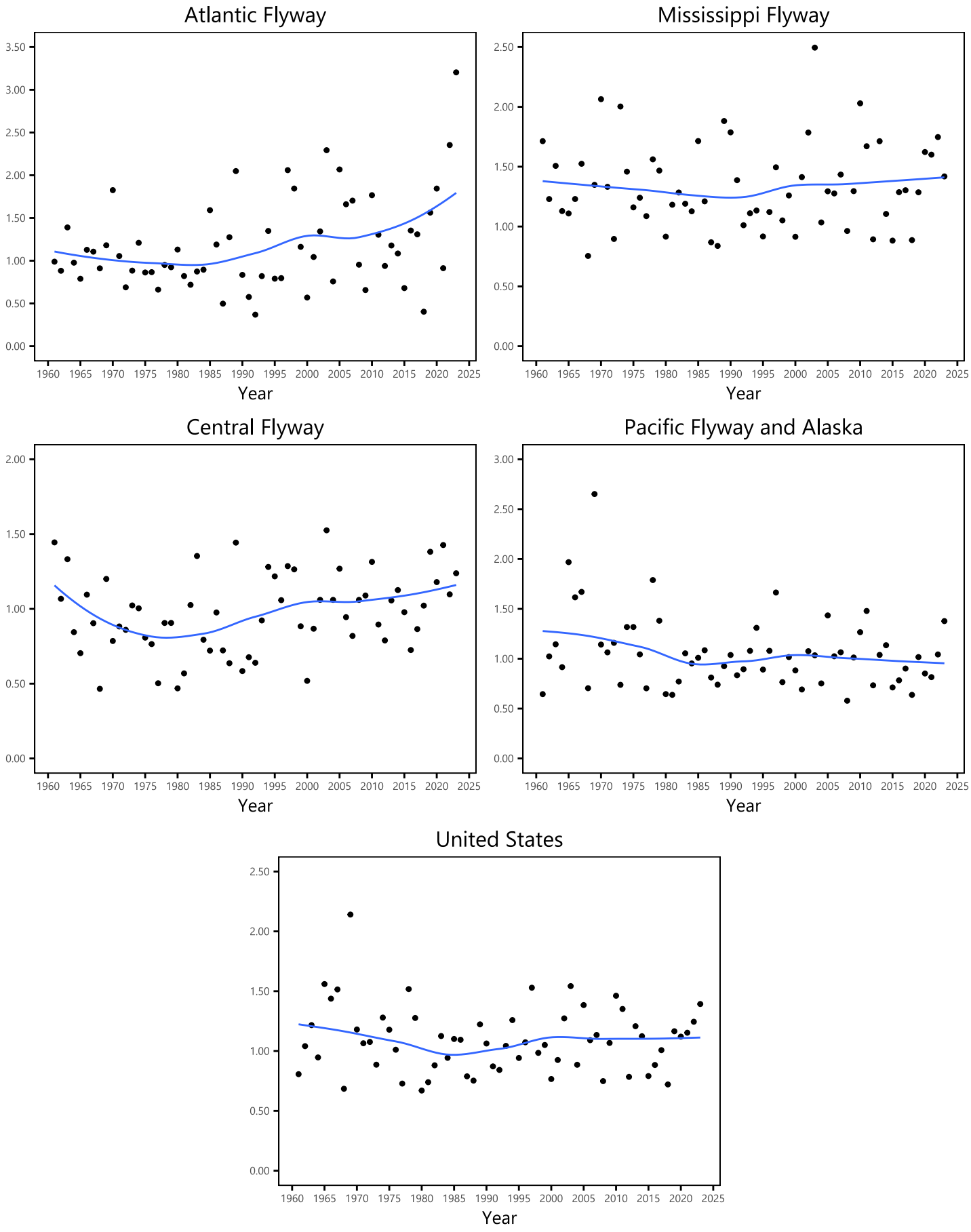

Figure 4. Age ratios of northern pintails harvested in the United States, 1961-2023.

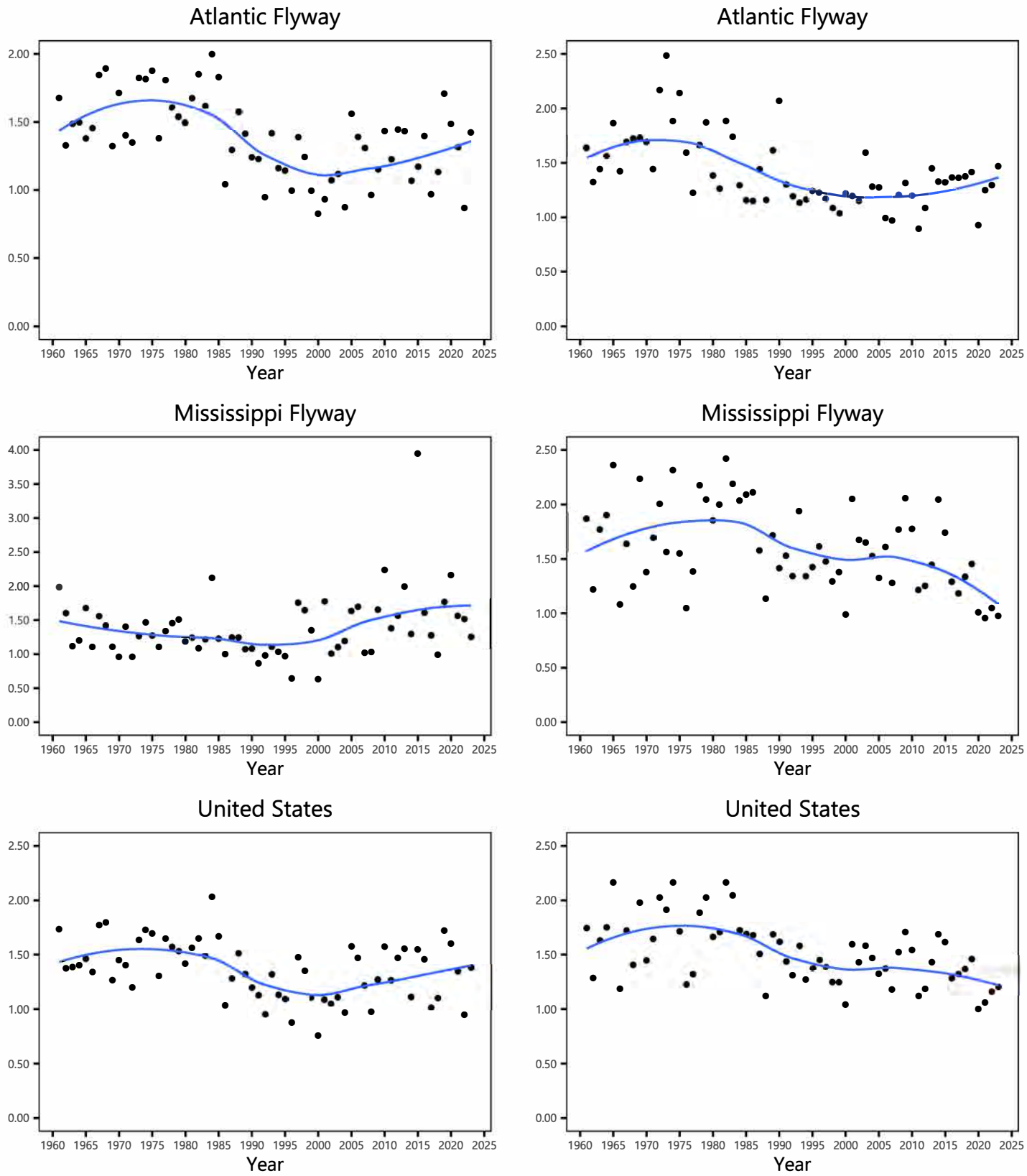

Figure 5. Age ratios of American Black Ducks (left column) and Wood Ducks (right column) harvested in the United States, 1961-2023.

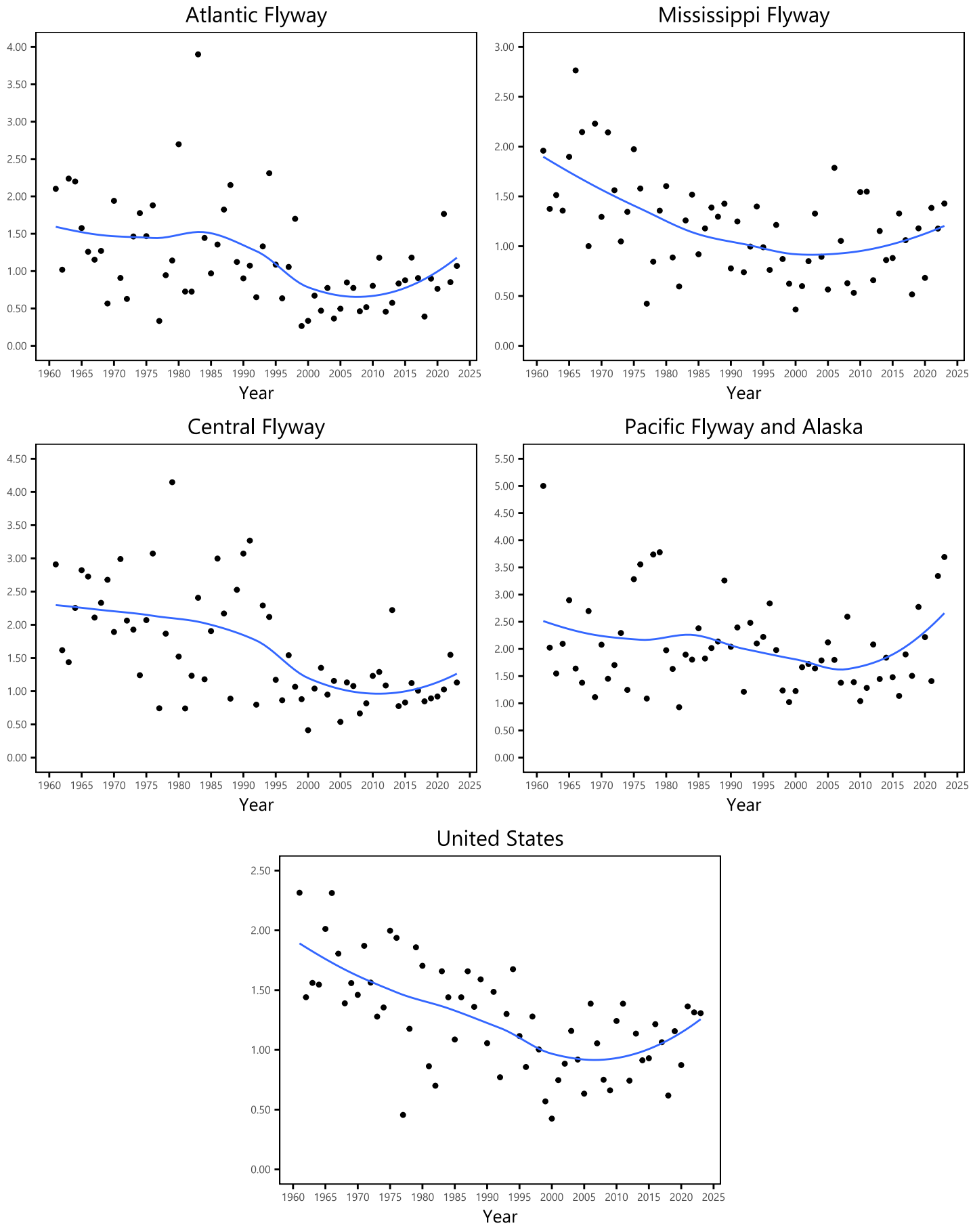

Figure 6. Age ratios of lesser scaup harvested in the United States, 1961-2023.

Table 13. Preliminary estimates of mourning dove harvest and hunter activity during the 2022 and 2023 hunting seasons. [a]

	Mourning Dove Harvest		Active Hunters [b]		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Alabama	371,700 ± 24%	533,400 ± 18%	30,400 ± 15%	35,500 ± 10%	54,500 ± 21%	86,600 ± 13%	12.2 ± 28%	15.0 ± 21%
Delaware	19,600 ± 135%	50,100 ± 21%	2,000 ± 0%	2,500 ± 11%	2,800 ± 41%	8,600 ± 18%	9.6 ± 135%	19.7 ± 24%
Florida	84,700 ± 49%	390,900 ± 35%	8,900 ± 35%	21,500 ± 23%	14,500 ± 45%	84,600 ± 29%	9.5 ± 60%	18.2 ± 42%
Georgia	423,200 ± 22%	871,600 ± 15%	40,300 ± 13%	56,500 ± 10%	67,000 ± 19%	151,800 ± 12%	10.5 ± 26%	15.4 ± 18%
Illinois	117,900 ± 33%	226,600 ± 21%	10,800 ± 21%	18,600 ± 15%	21,500 ± 38%	50,900 ± 19%	11.0 ± 39%	12.2 ± 26%
Indiana	91,300 ± 38%	152,800 ± 22%	8,600 ± 25%	12,400 ± 17%	17,700 ± 35%	42,800 ± 24%	10.6 ± 46%	12.4 ± 27%
Kentucky	216,900 ± 28%	386,300 ± 15%	14,900 ± 15%	20,000 ± 10%	31,100 ± 24%	58,900 ± 13%	14.6 ± 32%	19.3 ± 18%
Louisiana	124,000 ± 54%	320,300 ± 21%	8,100 ± 32%	21,800 ± 15%	14,800 ± 47%	66,900 ± 18%	15.3 ± 63%	14.7 ± 26%
Maryland	48,500 ± 57%	91,500 ± 37%	5,800 ± 44%	6,600 ± 32%	10,400 ± 57%	20,400 ± 38%	8.3 ± 72%	14.0 ± 49%
Mississippi	104,000 ± 34%	415,000 ± 21%	10,300 ± 27%	33,300 ± 16%	14,500 ± 32%	74,400 ± 19%	10.1 ± 44%	12.4 ± 27%
North Carolina	388,300 ± 23%	759,100 ± 24%	39,800 ± 14%	60,200 ± 10%	76,600 ± 20%	165,600 ± 29%	9.8 ± 27%	12.6 ± 26%
Ohio	175,200 ± 34%	140,000 ± 23%	11,100 ± 19%	13,100 ± 15%	33,100 ± 36%	46,100 ± 22%	15.8 ± 39%	10.7 ± 28%
Pennsylvania	124,700 ± 36%	127,000 ± 23%	14,900 ± 21%	18,900 ± 17%	32,200 ± 29%	71,600 ± 25%	8.4 ± 42%	6.7 ± 29%
Rhode Island	0	900 ± 128%	0	200 ± 50%	0	700 ± 67%	0	4.5 ± 137%
South Carolina	466,100 ± 33%	658,900 ± 18%	22,800 ± 20%	38,600 ± 13%	58,800 ± 28%	107,000 ± 14%	20.5 ± 38%	17.1 ± 22%
Tennessee	307,000 ± 31%	454,400 ± 19%	21,700 ± 17%	32,100 ± 14%	47,500 ± 26%	88,000 ± 20%	14.2 ± 35%	14.2 ± 24%
Virginia	174,000 ± 40%	294,300 ± 6%	13,300 ± 22%	22,400 ± 4%	28,700 ± 32%	58,900 ± 6%	13.1 ± 46%	13.1 ± 7%
West Virginia	5,800 ± 86%	12,100 ± 38%	1,500 ± 37%	1,700 ± 43%	2,000 ± 56%	5,000 ± 40%	3.8 ± 94%	6.9 ± 57%
Wisconsin	25,400 ± 60%	96,600 ± 33%	7,500 ± 29%	14,200 ± 21%	17,000 ± 43%	51,500 ± 26%	3.4 ± 67%	6.8 ± 39%
EMU Total	3,268,500 ± 9%	5,981,800 ± 6%	272,600	430,200	544,600 ± 7%	1,240,400 ± 6%		
Arkansas	123,500 ± 38%	256,900 ± 26%	10,000 ± 29%	15,600 ± 17%	20,400 ± 42%	46,100 ± 22%	12.4 ± 48%	16.5 ± 31%
Colorado	112,700 ± 22%	177,700 ± 24%	8,700 ± 15%	10,900 ± 14%	17,800 ± 18%	31,400 ± 19%	13.0 ± 27%	16.4 ± 28%
Iowa	58,300 ± 36%	102,900 ± 24%	6,300 ± 23%	8,400 ± 17%	9,300 ± 30%	26,400 ± 28%	9.2 ± 43%	12.3 ± 29%
Kansas	375,600 ± 23%	638,400 ± 15%	22,000 ± 14%	32,100 ± 10%	57,000 ± 25%	110,100 ± 13%	17.1 ± 27%	19.9 ± 18%
Minnesota	65,800 ± 55%	135,300 ± 36%	7,200 ± 34%	13,400 ± 25%	14,800 ± 40%	37,900 ± 30%	9.1 ± 65%	10.1 ± 44%
Missouri	182,600 ± 33%	313,900 ± 23%	15,600 ± 20%	24,700 ± 14%	34,900 ± 29%	68,100 ± 20%	11.7 ± 39%	12.7 ± 27%
Montana	17,900 ± 73%	38,800 ± 21%	1,600 ± 70%	3,200 ± 11%	4,000 ± 97%	10,000 ± 16%	11.5 ± 101%	12.3 ± 23%

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 more than 1 state. Variance inestimable.

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Table 13 (continued). Preliminary estimates of mourning dove harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	Mourning Dove Harvest		Active Hunters [b]		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Nebraska	131,000 ± 42%	270,100 ± 21%	10,000 ± 23%	12,900 ± 13%	24,500 ± 33%	46,100 ± 17%	13.1 ± 48%	20.9 ± 25%
New Mexico	77,800 ± 27%	72,600 ± 42%	5,300 ± 15%	6,600 ± 27%	14,400 ± 20%	18,100 ± 31%	14.6 ± 31%	11.0 ± 50%
North Dakota	33,600 ± 90%	175,500 ± 10%	2,600 ± 53%	9,600 ± 5%	4,800 ± 59%	32,800 ± 8%	12.7 ± 104%	18.2 ± 11%
Oklahoma	149,600 ± 50%	359,800 ± 24%	14,200 ± 25%	23,000 ± 17%	30,500 ± 42%	75,400 ± 21%	10.5 ± 56%	15.7 ± 29%
South Dakota	50,500 ± 69%	197,500 ± 27%	4,000 ± 38%	9,800 ± 23%	9,600 ± 53%	31,100 ± 24%	12.7 ± 79%	20.2 ± 35%
Texas	2,640,600 ± 17%	6,485,800 ± 7%	172,200 ± 7%	316,000 ± 4%	412,800 ± 12%	1,176,200 ± 6%	15.3 ± 18%	20.5 ± 8%
Wyoming	19,200 ± 82%	18,300 ± 19%	1,400 ± 38%	1,800 ± 11%	4,400 ± 71%	4,900 ± 19%	13.5 ± 91%	10.0 ± 22%
CMU Total	4,038,600 ± 12%	9,243,400 ± 5%	281,100	487,900	659,200 ± 9%	1,714,700 ± 4%		
Arizona	308,700 ± 16%	623,600 ± 14%	18,900 ± 8%	29,800 ± 11%	47,000 ± 12%	98,700 ± 21%	16.4 ± 18%	20.9 ± 18%
California	464,900 ± 19%	730,900 ± 15%	32,600 ± 10%	45,700 ± 9%	64,500 ± 15%	121,800 ± 12%	14.2 ± 22%	16.0 ± 18%
Idaho	97,500 ± 58%	59,900 ± 12%	6,800 ± 30%	6,500 ± 7%	22,000 ± 44%	19,700 ± 12%	14.3 ± 65%	9.3 ± 14%
Nevada	14,400 ± 43%	12,700 ± 55%	2,300 ± 42%	2,200 ± 45%	3,200 ± 45%	5,700 ± 62%	6.3 ± 60%	5.8 ± 71%
Oregon	15,800 ± 61%	11,200 ± 52%	3,000 ± 32%	3,600 ± 36%	5,700 ± 37%	25,800 ± 140%	5.2 ± 69%	3.1 ± 64%
Utah	12,700 ± 70%	27,300 ± 37%	3,100 ± 33%	5,800 ± 22%	5,300 ± 41%	17,900 ± 37%	4.1 ± 78%	4.7 ± 43%
Washington	33,500 ± 40%	68,800 ± 46%	4,500 ± 26%	6,500 ± 30%	10,600 ± 41%	17,100 ± 34%	7.5 ± 48%	10.7 ± 55%
WMU Total	947,500 ± 12%	1,534,500 ± 10%	71,200	100,000	158,200 ± 10%	306,800 ± 15%		
US Total	8,254,600 ± 7%	16,759,700 ± 4%	625,000	1,018,100	1,362,000 ± 5%	3,262,000 ± 3%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 more than 1 state. Variance inestimable.

Table 14. Preliminary estimates of white-winged dove harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	White-winged Dove Harvest		Active Hunters [b]		White-winged Dove Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Alabama	11,600 ± 121%	15,500 ± 48%	3,400 ± 58%	8,300 ± 29%	4,300 ± 62%	19,200 ± 31%	3.4 ± 134%	1.9 ± 56%
Florida	6,500 ± 108%	22,000 ± 135%	3,100 ± 69%	5,000 ± 54%	4,000 ± 75%	23,100 ± 60%	2.1 ± 128%	4.4 ± 145%
Georgia	7,800 ± 158%	7,400 ± 71%	2,500 ± 79%	6,100 ± 43%	4,300 ± 95%	17,100 ± 50%	3.1 ± 177%	1.2 ± 83%
Louisiana	3,900 ± 170%	31,300 ± 84%	900 ± 98%	6,500 ± 32%	1,200 ± 102%	24,300 ± 44%	4.1 ± 197%	4.8 ± 90%
Mississippi	2,800 ± 143%	43,700 ± 90%	1,600 ± 98%	10,400 ± 34%	2,100 ± 112%	25,600 ± 51%	1.8 ± 173%	4.2 ± 96%
EMU Total	32,600 ± 65%	119,800 ± 47%	11,500	36,300	15,800 ± 39%	109,400 ± 22%		
Colorado	2,800 ± 88%	5,300 ± 76%	1,300 ± 51%	2,100 ± 40%	2,400 ± 62%	6,800 ± 54%	2.1 ± 102%	2.6 ± 86%
Kansas	11,200 ± 63%	7,000 ± 74%	4,500 ± 42%	6,100 ± 31%	9,200 ± 55%	17,700 ± 33%	2.5 ± 76%	1.2 ± 80%
New Mexico	27,800 ± 34%	19,600 ± 75%	3,500 ± 19%	3,900 ± 38%	10,600 ± 24%	12,500 ± 41%	7.9 ± 39%	5.1± 84%
Oklahoma	4,900 ± 157%	16,800 ± 93%	3,900 ± 64%	6,700 ± 39%	7,200 ± 71%	20,300 ± 42%	1.3 ± 169%	2.5 ± 101%
Texas	772,000 ± 20%	1,779,100 ± 10%	99,900 ± 10%	190,300 ± 6%	204,600 ± 16%	672,000 ± 8%	7.7 ± 23%	9.4 ± 12%
CMU Total	818,700 ± 19%	1,827,800 ± 10%	113,200	209,000	234,100 ± 14%	729,200 ± 8%		
Arizona	44,600 ± 22%	104,600 ± 28%	11,400 ± 12%	18,800 ± 15%	27,900 ± 18%	53,800 ± 18%	3.9 ± 26%	5.6 ± 31%
California	38,700 ± 40%	44,700 ± 37%	8,000 ± 26%	12,400 ± 20%	14,300 ± 32%	32,100 ± 25%	4.9 ± 47%	3.6 ± 43%
Nevada	300 ± 195%	600 ± 170%	300 ± 137%	800 ± 86%	300 ± 137%	3,900 ± 100%	1.0 ± 239%	0.8 ± 190%
Utah	0	0	700 ± 77%	800 ± 73%	1,400 ± 94%	2,200 ± 101%	0	0
Washington	83,600 ± 22%	150,000 ± 22%	20,400	32,800	43,900 ± 16%	92,000 ± 14%		
US Total	934,900 ± 17%	2,097,700 ± 9%	145,100	278,100	293,700 ± 11%	930,500 ± 7%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 2022 and 2023 hunting seasons.[a]

	Band-tailed Pigeon Harvest		Active Hunters [b]		Band-tailed Pigeon Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Arizona	300 ± 56%	1,100 ± 54%	500 ± 27%	1,100 ± 17%	800 ± 32%	3,000 ± 24%	0.7 ± 63%	1.0 ± 57%
Colorado	<50 ± 114%	200 ± 76%	100 ± 58%	300 ± 28%	100 ± 65%	900 ± 39%	0.9 ± 128%	0.8 ± 81%
New Mexico	200 ± 117%	100 ± 188%	200 ± 37%	200 ± 42%	400 ± 54%	900 ± 56%	1.2 ± 123%	0.2 ± 193%
Utah	0	0	100 ± 62%	<50 ± 87%	200 ± 91%	<50 ± 112%	0	0
California	1,800 ± 25%	2,300 ± 22%	600 ± 17%	1,000 ± 10%	1,200 ± 23%	2,300 ± 15%	3.0 ± 30%	2.2 ± 24%
Oregon	900 ± 36%	1,000 ± 29%	400 ± 18%	500 ± 11%	900 ± 26%	1,300 ± 16%	2.4 ± 40%	2.0 ± 31%
Washington	200 ± 89%	400 ± 47%	100 ± 38%	200 ± 25%	200 ± 47%	600 ± 31%	1.2 ± 96%	1.7 ± 53%
United States Total	3,500 ± 19%	5,100 ± 17%	1,900	3,400	3,700 ± 14%	8,900 ± 12%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 more than 1 state. Variance inestimable.

Table 16. Preliminary estimates of American woodcock harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	Woodcock Harvest		Active Woodcock Hunters [b]		Woodcock Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Connecticut	400 ± 73%	1,000 ± 58%	200 ± 25%	200 ± 14%	800 ± 46%	1,800 ± 31%	2.7 ± 77%	4.1 ± 60%
Delaware	300 ± 104%	600 ± 93%	100 ± 40%	<50 ± 76%	200 ± 66%	300 ± 92%	4.7 ± 112%	12.5 ± 121%
Florida	7,500 ± 183%	100 ± 151%	4,800 ± 134%	7,800 ± 131%	7,600 ± 133%	16,800 ± 138%	1.6 ± 227%	<0.1 ± 200%
Georgia	1,000 ± 43%	4,000 ± 43%	400 ± 30%	700 ± 18%	1,600 ± 42%	4,900 ± 36%	2.5 ± 52%	5.8 ± 47%
Maine	20,400 ± 77%	20,500 ± 64%	6,800 ± 89%	8,100 ± 72%	17,600 ± 56%	27,600 ± 48%	3.0 ± 117%	2.5 ± 97%
Maryland	800 ± 53%	1,300 ± 58%	300 ± 34%	3,500 ± 177%	1,000 ± 48%	4,700 ± 132%	2.8 ± 62%	0.4 ± 186%
Massachusetts	2,800 ± 86%	4,900 ± 112%	600 ± 17%	4,700 ± 85%	3,700 ± 49%	25,600 ± 92%	4.4 ± 88%	1.0 ± 140%
New Hampshire	5,000 ± 32%	4,500 ± 18%	2,100 ± 97%	1,100 ± 5%	8,100 ± 75%	7,600 ± 13%	2.4 ± 102%	4.2 ± 19%
New Jersey	600 ± 42%	8,300 ± 153%	200 ± 19%	4,600 ± 115%	1,400 ± 57%	32,000 ± 132%	2.7 ± 46%	1.8 ± 191%
New York	4,300 ± 77%	5,800 ± 94%	5,700 ± 92%	6,300 ± 115%	13,500 ± 97%	46,700 ± 123%	0.8 ± 120%	0.9 ± 148%
North Carolina	9,900 ± 52%	9,000 ± 67%	6,900 ± 104%	10,200 ± 96%	19,100 ± 64%	23,200 ± 81%	1.4 ± 116%	0.9 ± 117%
Pennsylvania	1,900 ± 24%	5,000 ± 20%	3,400 ± 94%	3,700 ± 99%	7,900 ± 64%	27,600 ± 107%	0.6 ± 97%	1.3 ± 101%
Rhode Island	100 ± 81%	<50 ± 182%	100 ± 55%	<50 ± 49%	200 ± 71%	700 ± 63%	2.2 ± 98%	0.3 ± 188%
South Carolina	5,500 ± 133%	3,300 ± 34%	3,900 ± 183%	600 ± 11%	5,100 ± 141%	3,400 ± 23%	1.4 ± 226%	5.8 ± 36%
Vermont	1,900 ± 30%	5,500 ± 73%	500 ± 9%	2,600 ± 151%	2,300 ± 24%	10,800 ± 111%	3.6 ± 31%	2.1 ± 168%
Virginia	2,700 ± 39%	4,200 ± 29%	500 ± 16%	700 ± 10%	3,300 ± 30%	3,800 ± 20%	4.9 ± 43%	6.2 ± 31%
West Virginia	300 ± 63%	500 ± 39%	100 ± 23%	100 ± 18%	400 ± 56%	900 ± 36%	2.6 ± 67%	3.8 ± 43%
EMR Total	65,400 ± 35%	78,700 ± 27%	36,500	55,000	94,000 ± 27%	238,400 ± 37%		
Alabama	500 ± 126%	5,800 ± 185%	100 ± 69%	2,000 ± 179%	400 ± 86%	8,300 ± 172%	3.8 ± 144%	2.9 ± 257%
Arkansas	2,400 ± 134%	17,400 ± 174%	1,800 ± 177%	3,400 ± 126%	2,200 ± 143%	6,500 ± 105%	1.4 ± 222%	5.1 ± 215%
Illinois	100 ± 111%	200 ± 99%	1,800 ± 182%	100 ± 60%	2,300 ± 149%	500 ± 81%	<0.1 ± 213%	1.6 ± 116%
Indiana	300 ± 57%	600 ± 62%	1,100 ± 171%	200 ± 29%	1,400 ± 131%	800 ± 44%	0.2 ± 181%	3.8 ± 69%
Iowa	100 ± 76%	800 ± 146%	100 ± 36%	1,300 ± 170%	400 ± 73%	6,300 ± 169%	0.6 ± 84%	0.7 ± 224%
Kansas	100 ± 139%	100 ± 186%	100 ± 89%	<50 ± 126%	100 ± 95%	100 ± 139%	0.8 ± 165%	2.5 ± 225%
Kentucky	400 ± 84%	800 ± 69%	1,500 ± 177%	200 ± 23%	6,100 ± 176%	1,000 ± 44%	0.2 ± 196%	4.3 ± 73%
Louisiana	9,200 ± 113%	13,500 ± 52%	2,300 ± 148%	6,800 ± 77%	8,200 ± 127%	14,600 ± 50%	4.0 ± 187%	2.0 ± 93%
Michigan	32,100 ± 9%	50,400 ± 26%	23,700 ± 46%	26,600 ± 39%	55,800 ± 31%	109,400 ± 33%	1.4 ± 47%	1.9 ± 46%
Minnesota	23,300 ± 25%	30,300 ± 33%	14,100 ± 56%	15,500 ± 60%	54,700 ± 69%	69,500 ± 71%	1.6 ± 62%	2.0 ± 69%
Mississippi	1,400 ± 122%	600 ± 45%	200 ± 42%	300 ± 28%	900 ± 75%	1,500 ± 48%	6.5 ± 129%	1.9 ± 53%

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 more than 1 state. Variance inestimable.

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Table 16 (continued). Preliminary estimates of American woodcock harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	Woodcock Harvest		Active Woodcock Hunters [b]		Woodcock Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Missouri	3,800 ± 164%	1,300 ± 57%	1,700 ± 180%	300 ± 22%	2,500 ± 125%	1,500 ± 37%	2.2 ± 243%	4.9 ± 61%
Nebraska	0	100 ± 108%	0	100 ± 60%	0	700 ± 87%	0	0.7 ± 124%
Ohio	2,100 ± 117%	1,300 ± 38%	1,700 ± 139%	2,400 ± 155%	3,100 ± 81%	6,200 ± 121%	1.2 ± 182%	0.5 ± 159%
Oklahoma	0	300 ± 192%	0	100 ± 132%	0	300 ± 133%	0	5.0 ± 233%
Tennessee	200 ± 80%	2,400 ± 67%	200 ± 39%	2,900 ± 175%	700 ± 59%	28,400 ± 179%	1.1 ± 89%	0.8 ± 187%
Texas	3,900 ± 116%	2,700 ± 52%	4,800 ± 132%	400 ± 15%	5,700 ± 110%	1,900 ± 38%	0.8 ± 176%	7.0 ± 55%
Wisconsin	32,600 ± 18%	32,000 ± 21%	13,300 ± 47%	18,800 ± 45%	45,200 ± 44%	95,900 ± 51%	2.4 ± 50%	1.7 ± 50%
CMR Total	112,500 ± 14%	160,500 ± 23%	68,600	81,400	189,600 ± 26%	353,400 ± 27%		
US Total	177,900 ± 16%	239,200 ± 18%	105,100	136,400	283,600 ± 19%	591,800 ± 22%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 more than 1 state. Variance inestimable.

Table 17. Preliminary estimates of snipe harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	Snipe Harvest		Active Snipe Hunters [b]		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Connecticut	<50 ± 187%	0	<50 ± 187%	0	<50 ± 187%	0	3.0 ± 264%	0
Delaware	0	100 ± 193%	0	<50 ± 193%	0	200 ± 193%	0	3.0 ± 273%
Florida	23,300 ± 42%	101,600 ± 85%	1,600 ± 16%	13,500 ± 63%	6,200 ± 31%	34,600 ± 56%	14.9 ± 45%	7.5 ± 106%
Georgia	700 ± 115%	4,900 ± 147%	100 ± 75%	2,000 ± 177%	200 ± 88%	2,400 ± 150%	7.5 ± 138%	2.4 ± 230%
Maine	<50 ± 192%	300 ± 132%	100 ± 86%	300 ± 63%	200 ± 99%	900 ± 73%	0.2 ± 211%	0.9 ± 146%
Maryland	300 ± 149%	100 ± 193%	100 ± 109%	100 ± 134%	200 ± 130%	100 ± 134%	3.7 ± 184%	1.0 ± 235%
Massachusetts	0	200 ± 186%	<50 ± 193%	<50 ± 82%	<50 ± 193%	200 ± 96%	0	6.0 ± 203%
New Hampshire	2,400 ± 196%	<50 ± 185%	1,200 ± 194%	<50 ± 87%	2,400 ± 195%	100 ± 120%	2.0 ± 276%	0.7 ± 205%
New Jersey	<50 ± 190%	100 ± 166%	100 ± 108%	100 ± 108%	100 ± 146%	100 ± 115%	0.7 ± 219%	2.3 ± 198%
New York	0	<50 ± 191%	<50 ± 106%	1,300 ± 186%	200 ± 147%	3,800 ± 185%	0	<0.1 ± 267%
North Carolina	23,600 ± 163%	1,300 ± 61%	400 ± 55%	1,900 ± 167%	3,800 ± 129%	4,000 ± 154%	59.7 ± 172%	0.7 ± 177%
Pennsylvania	<50 ± 185%	100 ± 86%	1,000 ± 194%	100 ± 66%	1,100 ± 186%	600 ± 113%	<0.1 ± 268%	1.1 ± 108%
Rhode Island	0	200 ± 191%	0	<50 ± 191%	0	100 ± 191%	0	8.0 ± 270%
South Carolina	0	600 ± 90%	0	100 ± 54%	0	300 ± 62%	0	5.8 ± 105%
Vermont	100 ± 145%	0	100 ± 46%	100 ± 60%	300 ± 59%	300 ± 81%	0.5 ± 152%	0
Virginia	<50 ± 188%	3,400 ± 193%	<50 ± 132%	900 ± 177%	<50 ± 139%	2,100 ± 155%	2.0 ± 229%	3.7 ± 262%
West Virginia	<50 ± 180%	0	<50 ± 121%	0	100 ± 156%	0	1.0 ± 217%	0
Atlantic Flyway Total	50,500 ± 79%	112,900 ± 77%	4,800	20,500	14,800 ± 49%	49,800 ± 45%		
Alabama	400 ± 121%	10,300 ± 180%	100 ± 61%	2,000 ± 182%	600 ± 66%	28,700 ± 192%	2.8 ± 135%	5.1 ± 255%
Arkansas	400 ± 71%	6,100 ± 179%	200 ± 49%	2,400 ± 127%	400 ± 69%	4,900 ± 124%	2.5 ± 86%	2.5 ± 219%
Illinois	200 ± 103%	1,700 ± 173%	100 ± 59%	1,100 ± 95%	300 ± 96%	2,700 ± 80%	1.4 ± 119%	1.6 ± 197%
Indiana	100 ± 73%	700 ± 80%	100 ± 45%	200 ± 32%	200 ± 60%	1,100 ± 56%	1.2 ± 86%	3.0 ± 86%
Iowa	500 ± 72%	400 ± 64%	100 ± 37%	200 ± 33%	400 ± 47%	700 ± 51%	3.4 ± 81%	2.3 ± 72%
Kentucky	600 ± 118%	1,800 ± 179%	100 ± 87%	900 ± 185%	900 ± 118%	3,500 ± 183%	7.5 ± 147%	2.1 ± 257%
Louisiana	5,300 ± 52%	112,400 ± 132%	400 ± 33%	4,700 ± 68%	2,000 ± 47%	39,800 ± 130%	12.1 ± 62%	23.7 ± 149%
Michigan	4,400 ± 168%	3,400 ± 124%	1,600 ± 149%	4,600 ± 125%	2,200 ± 112%	16,700 ± 121%	2.7 ± 224%	0.7 ± 176%
Minnesota	700 ± 66%	4,900 ± 89%	4,500 ± 103%	5,700 ± 88%	6,400 ± 102%	19,500 ± 131%	0.2 ± 122%	0.9 ± 125%
Mississippi	1,100 ± 88%	1,200 ± 91%	200 ± 55%	100 ± 75%	500 ± 81%	400 ± 89%	6.7 ± 104%	9.8 ± 118%
Missouri	700 ± 82%	23,000 ± 177%	200 ± 36%	4,600 ± 106%	400 ± 42%	72,000 ± 181%	3.2 ± 90%	4.9 ± 206%

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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.

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Table 17 (continued). Preliminary estimates of snipe harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	Snipe Harvest		Active Snipe Hunters [b]		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Ohio	600 ± 102%	600 ± 67%	100 ± 55%	2,200 ± 122%	300 ± 74%	6,600 ± 148%	4.5 ± 116%	0.3 ± 139%
Tennessee	200 ± 142%	6,300 ± 188%	100 ± 74%	2,100 ± 185%	300 ± 94%	4,700 ± 168%	1.8 ± 160%	3.0 ± 263%
Wisconsin	500 ± 70%	5,600 ± 138%	300 ± 30%	1,900 ± 97%	1,000 ± 55%	9,600 ± 102%	1.7 ± 76%	3.0 ± 169%
Mississippi Flyway Total	15,600 ± 52%	178,300 ± 88%	8,200	32,700	15,800 ± 46%	211,000 ± 74%		
Colorado	400 ± 87%	700 ± 90%	900 ± 170%	200 ± 31%	3,500 ± 185%	1,000 ± 53%	0.5 ± 191%	3.0 ± 95%
Kansas	300 ± 102%	1,500 ± 131%	100 ± 54%	1,100 ± 177%	400 ± 82%	1,400 ± 139%	2.2 ± 115%	1.4 ± 220%
Nebraska	1,300 ± 101%	11,700 ± 145%	200 ± 38%	3,900 ± 70%	500 ± 53%	12,800 ± 87%	7.7 ± 108%	3.0 ± 161%
New Mexico	<50 ± 187%	<50 ± 114%	<50 ± 187%	1,000 ± 175%	<50 ± 187%	4,900 ± 179%	1.0 ± 264%	<0.1 ± 209%
North Dakota	100 ± 72%	2,600 ± 158%	100 ± 55%	2,300 ± 124%	200 ± 76%	7,300 ± 140%	1.3 ± 91%	1.1 ± 201%
Oklahoma	200 ± 105%	900 ± 84%	100 ± 67%	1,000 ± 81%	200 ± 71%	2,000 ± 65%	1.5 ± 124%	0.9 ± 116%
South Dakota	200 ± 91%	200 ± 83%	100 ± 77%	100 ± 47%	100 ± 89%	200 ± 68%	3.2 ± 120%	2.0 ± 95%
Texas	14,600 ± 131%	4,400 ± 36%	3,600 ± 118%	9,500 ± 92%	5,300 ± 84%	31,000 ± 144%	4.0 ± 176%	0.5 ± 99%
Wyoming	<50 ± 156%	400 ± 90%	100 ± 57%	100 ± 40%	200 ± 69%	500 ± 56%	0.7 ± 166%	3.6 ± 99%
Central Flyway Total	17,100 ± 112%	22,400 ± 79%	5,200	19,200	10,300 ± 76%	61,100 ± 78%		
Arizona	100 ± 134%	200 ± 116%	<50 ± 106%	2,300 ± 129%	100 ± 140%	12,600 ± 171%	1.7 ± 171%	<0.1 ± 174%
California	1,600 ± 63%	3,900 ± 36%	1,500 ± 154%	500 ± 20%	2,100 ± 112%	2,300 ± 28%	1.1 ± 167%	7.1 ± 42%
Idaho	0	0	100	900 ± 196%	100 ± 0%	34,300 ± 196%	0	0
Montana	4,300 ± 119%	200 ± 89%	2,100 ± 105%	100 ± 66%	3,700 ± 85%	200 ± 99%	2.0 ± 158%	2.3 ± 111%
Nevada	<50 ± 185%	4,400 ± 194%	<50 ± 89%	2,200 ± 193%	100 ± 95%	21,600 ± 195%	0.8 ± 205%	2.0 ± 274%
Oregon	500 ± 76%	2,300 ± 101%	200 ± 39%	1,300 ± 158%	600 ± 83%	4,500 ± 140%	3.1 ± 85%	1.8 ± 188%
Utah	200 ± 97%	100 ± 82%	100 ± 46%	800 ± 142%	300 ± 54%	2,400 ± 100%	1.3 ± 108%	0.1 ± 164%
Washington	100 ± 129%	400 ± 86%	100 ± 60%	100 ± 56%	1,000 ± 129%	400 ± 85%	1.0 ± 142%	4.0 ± 103%
Pacific Flyway Total	6,800 ± 77%	11,400 ± 78%	4,200	8,200	8,000 ± 53%	78,300 ± 105%		
Alaska	300 ± 113%	1,600 ± 113%	100 ± 72%	200 ± 43%	200 ± 96%	600 ± 54%	3.7 ± 134%	9.8 ± 120%
United States Total	90,400 ± 50%	326,600 ± 55%	22,500	80,700	49,100 ± 28%	400,800 ± 46%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 2022 and 2023 hunting seasons.[a]

	Coot Harvest		Active Coot Hunters [b]		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Connecticut	0	0	0	0	0	0	0	0
Delaware	0	<50 ± 193%	<50 ± 192%	<50 ± 193%	<50 ± 192%	<50 ± 193%	0	1.0 ± 273%
Florida	2,600 ± 67%	96,300 ± 134%	400 ± 37%	6,700 ± 94%	1,600 ± 68%	26,500 ± 116%	6.1 ± 77%	14.4 ± 164%
Georgia	100 ± 109%	53,300 ± 181%	100 ± 69%	3,700 ± 135%	100 ± 74%	17,100 ± 140%	1.4 ± 130%	14.4 ± 226%
Maine	100 ± 192%	<50 ± 193%	<50 ± 192%	100 ± 96%	100 ± 192%	400 ± 116%	4.0 ± 272%	0.2 ± 216%
Maryland	0	100 ± 193%	0	<50 ± 193%	0	<50 ± 193%	0	2.0 ± 273%
Massachusetts	0	100 ± 156%	0	<50 ± 127%	0	100 ± 160%	0	3.0 ± 201%
New Hampshire	0	0	0	0	0	0	0	0
New Jersey	<50 ± 190%	0	<50 ± 134%	0	<50 ± 134%	0	1.0 ± 232%	0
New York	200 ± 109%	400 ± 92%	100 ± 57%	1,500 ± 157%	200 ± 74%	5,000 ± 144%	2.0 ± 123%	0.3 ± 182%
North Carolina	19,900 ± 187%	3,700 ± 62%	400 ± 57%	500 ± 28%	2,800 ± 124%	2,500 ± 49%	54.9 ± 196%	7.3 ± 68%
Pennsylvania	<50 ± 106%	11,000 ± 186%	<50 ± 82%	1,400 ± 181%	300 ± 165%	7,700 ± 167%	0.6 ± 134%	7.8 ± 260%
Rhode Island	300 ± 192%	0	<50 ± 192%	0	<50 ± 192%	0	10.0 ± 272%	0
South Carolina	7,700 ± 196%	4,800 ± 184%	1,900 ± 196%	1,600 ± 187%	1,900 ± 196%	3,500 ± 167%	4.0 ± 277%	3.1 ± 263%
Vermont	<50 ± 145%	0	100 ± 74%	<50 ± 107%	100 ± 101%	100 ± 116%	0.7 ± 163%	0
Virginia	<50 ± 188%	200 ± 125%	<50 ± 132%	100 ± 65%	100 ± 171%	700 ± 80%	1.0 ± 229%	3.3 ± 141%
West Virginia	100 ± 164%	100 ± 182%	<50 ± 121%	<50 ± 122%	100 ± 171%	200 ± 123%	6.0 ± 204%	5.0 ± 219%
Atlantic Flyway Total	31,100 ± 129%	170,000 ± 96%	3,200	15,700	7,600 ± 70%	63,800 ± 66%		
Alabama	600 ± 96%	2,200 ± 81%	200 ± 57%	2,000 ± 182%	600 ± 104%	29,100 ± 190%	3.7 ± 112%	1.1 ± 200%
Arkansas	4,100 ± 185%	1,300 ± 98%	2,700 ± 133%	100 ± 57%	3,000 ± 120%	1,100 ± 141%	1.5 ± 228%	9.6 ± 114%
Illinois	700 ± 95%	4,400 ± 120%	200 ± 42%	1,200 ± 82%	1,200 ± 71%	7,400 ± 73%	3.2 ± 104%	3.6 ± 146%
Indiana	800 ± 95%	4,600 ± 158%	100 ± 43%	900 ± 160%	400 ± 76%	4,800 ± 153%	6.2 ± 104%	5.1 ± 225%
Iowa	1,200 ± 44%	1,800 ± 54%	300 ± 22%	200 ± 26%	700 ± 41%	1,500 ± 43%	4.0 ± 49%	7.5 ± 60%
Kentucky	0	3,400 ± 189%	900 ± 175%	1,700 ± 132%	1,200 ± 135%	4,400 ± 148%	0	2.0 ± 231%
Louisiana	16,000 ± 36%	188,100 ± 100%	1,200 ± 19%	7,700 ± 52%	4,100 ± 42%	90,000 ± 79%	13.5 ± 40%	24.3 ± 112%
Michigan	29,900 ± 189%	4,800 ± 171%	2,800 ± 125%	2,300 ± 175%	7,100 ± 142%	14,300 ± 172%	10.8 ± 226%	2.0 ± 245%
Minnesota	4,000 ± 60%	13,500 ± 115%	600 ± 27%	4,600 ± 95%	1,500 ± 41%	30,600 ± 111%	7.2 ± 66%	2.9 ± 149%
Mississippi	4,100 ± 125%	2,300 ± 109%	1,400 ± 173%	100 ± 83%	2,200 ± 120%	1,800 ± 105%	2.9 ± 213%	21.4 ± 137%
Missouri	<50 ± 188%	29,800 ± 176%	1,700 ± 190%	1,600 ± 182%	1,700 ± 189%	67,200 ± 194%	<0.1 ± 267%	18.7 ± 253%

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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.

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Table 18 (continued). Preliminary estimates of coot harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	Coot Harvest		Active Coot Hunters [b]		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Ohio	6,700 ± 127%	800 ± 62%	2,500 ± 130%	1,300 ± 154%	2,600 ± 126%	11,000 ± 176%	2.6 ± 182%	0.7 ± 166%
Tennessee	200 ± 174%	400 ± 98%	100 ± 74%	100 ± 59%	400 ± 90%	1,000 ± 86%	2.0 ± 189%	3.6 ± 114%
Wisconsin	8,000 ± 139%	4,000 ± 45%	1,400 ± 134%	3,300 ± 77%	2,900 ± 74%	9,800 ± 57%	5.8 ± 193%	1.2 ± 89%
Mississippi Flyway Total	76,300 ± 78%	261,500 ± 75%	15,900	27,200	29,700 ± 42%	273,900 ± 60%		
Colorado	300 ± 87%	800 ± 72%	1,000 ± 169%	700 ± 153%	3,500 ± 184%	1,300 ± 93%	0.3 ± 190%	1.1 ± 169%
Kansas	400 ± 85%	1,000 ± 77%	100 ± 67%	100 ± 38%	200 ± 76%	600 ± 80%	4.3 ± 108%	9.5 ± 86%
Nebraska	<50 ± 137%	7,300 ± 116%	<50 ± 105%	1,700 ± 111%	<50 ± 110%	8,900 ± 172%	1.0 ± 173%	4.3 ± 160%
New Mexico	400 ± 113%	1,100 ± 162%	100 ± 83%	1,900 ± 127%	400 ± 119%	10,600 ± 129%	6.8 ± 140%	0.6 ± 206%
North Dakota	6,100 ± 116%	4,400 ± 139%	2,600 ± 104%	1,400 ± 142%	3,700 ± 102%	8,700 ± 162%	2.4 ± 156%	3.1 ± 198%
Oklahoma	2,000 ± 115%	3,600 ± 94%	300 ± 43%	600 ± 75%	1,300 ± 104%	2,000 ± 49%	6.7 ± 123%	5.7 ± 120%
South Dakota	200 ± 149%	300 ± 75%	<50 ± 129%	100 ± 42%	100 ± 166%	200 ± 64%	9.0 ± 198%	3.2 ± 86%
Texas	10,100 ± 112%	13,700 ± 96%	4,900 ± 107%	9,300 ± 94%	27,100 ± 168%	52,900 ± 124%	2.1 ± 155%	1.5 ± 134%
Wyoming	100 ± 104%	400 ± 103%	<50 ± 72%	100 ± 47%	300 ± 136%	400 ± 58%	1.5 ± 127%	4.5 ± 113%
Central Flyway Total	19,600 ± 69%	32,600 ± 53%	8,900	16,000	36,700 ± 126%	85,600 ± 82%		
Arizona	700 ± 85%	11,600 ± 184%	100 ± 55%	2,300 ± 129%	200 ± 83%	18,400 ± 175%	6.3 ± 101%	5.0 ± 225%
California	10,200 ± 97%	20,300 ± 68%	1,800 ± 131%	6,400 ± 75%	4,100 ± 72%	17,700 ± 73%	5.6 ± 163%	3.2 ± 101%
Idaho	4,400 ± 192%	9,400 ± 178%	900 ± 179%	1,700 ± 137%	900 ± 179%	35,100 ± 191%	4.7 ± 263%	5.5 ± 225%
Montana	19,100 ± 122%	200 ± 156%	4,200 ± 85%	100 ± 66%	5,400 ± 71%	200 ± 93%	4.6 ± 149%	3.4 ± 170%
Nevada	7,200 ± 186%	119,200 ± 194%	700 ± 181%	2,300 ± 186%	800 ± 167%	22,300 ± 189%	9.7 ± 260%	52.8 ± 269%
Oregon	1,500 ± 112%	10,400 ± 145%	1,000 ± 147%	1,300 ± 163%	1,300 ± 118%	2,700 ± 84%	1.4 ± 184%	8.0 ± 218%
Utah	3,100 ± 65%	7,100 ± 42%	1,600 ± 110%	2,400 ± 74%	2,500 ± 75%	9,800 ± 67%	1.9 ± 127%	2.9 ± 85%
Washington	21,000 ± 146%	1,400 ± 66%	4,300 ± 132%	200 ± 40%	5,000 ± 116%	600 ± 63%	4.9 ± 197%	7.2 ± 77%
Pacific Flyway Total	67,100 ± 64%	179,700 ± 130%	14,700	16,700	20,200 ± 41%	106,900 ± 81%		
	0	0	0	0	0	0	0	0
United States Total	194,100 ± 43%	643,700 ± 54%	42,700	75,600	94,100 ± 52%	530,100 ± 38%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 2022 and 2023 hunting seasons.[a]

	Gallinule Harvest		Active Gallinule Hunters [b]		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Delaware	0	0	0	0	0	0	0	0
Florida	3,700 ± 60%	25,600 ± 82%	400 ± 37%	4,100 ± 54%	600 ± 47%	9,600 ± 64%	8.8 ± 71%	6.3 ± 98%
Georgia	<50 ± 189%	1,800 ± 144%	<50 ± 189%	1,300 ± 186%	<50 ± 189%	1,800 ± 145%	2.0 ± 268%	1.3 ± 235%
New Jersey	0	0	<50 ± 134%	0	<50 ± 134%	0	0	0
New York	200 ± 126%	1,700 ± 196%	<50 ± 91%	1,200 ± 133%	100 ± 106%	2,300 ± 152%	3.0 ± 155%	1.5 ± 237%
North Carolina	16,200 ± 193%	0	100 ± 136%	<50 ± 192%	1,500 ± 189%	<50 ± 192%	246.0 ± 236%	0
Pennsylvania	0	<50 ± 188%	0	<50 ± 188%	0	<50 ± 188%	0	2.0 ± 266%
South Carolina	0	22,700 ± 196%	0	1,500 ± 194%	0	1,500 ± 192%	0	14.9 ± 275%
Virginia	0	0	<50 ± 188%	700 ± 189%	<50 ± 188%	14,500 ± 194%	0	0
West Virginia	0	0	<50 ± 180%	0	100 ± 180%	0	0	0
Atlantic Flyway Total	20,100 ± 156%	51,800 ± 95%	600	8,900	2,400 ± 120%	29,900 ± 98%		
Alabama	<50 ± 140%	0	<50 ± 133%	<50 ± 100%	<50 ± 133%	300 ± 132%	1.5 ± 193%	0
Arkansas	<50 ± 188%	0	<50 ± 107%	<50 ± 191%	<50 ± 107%	100 ± 191%	0.3 ± 216%	0
Kentucky	0	0	<50 ± 191%	400 ± 196%	400 ± 191%	2,100 ± 196%	0	0
Louisiana	3,500 ± 48%	37,000 ± 51%	500 ± 30%	4,600 ± 39%	1,500 ± 51%	32,600 ± 56%	6.8 ± 57%	8.1 ± 64%
Michigan	100 ± 188%	0	<50 ± 132%	100 ± 75%	200 ± 174%	600 ± 116%	4.5 ± 230%	0
Minnesota	0	7,700 ± 153%	<50 ± 133%	1,600 ± 112%	<50 ± 140%	22,100 ± 147%	0	5.0 ± 189%
Mississippi	0	2,800 ± 139%	<50 ± 133%	1,600 ± 192%	<50 ± 133%	2,200 ± 150%	0	1.8 ± 237%
Ohio	<50 ± 188%	100 ± 100%	<50 ± 107%	<50 ± 62%	100 ± 124%	200 ± 68%	1.0 ± 217%	1.6 ± 117%
Tennessee	0	0	<50 ± 189%	800 ± 196%	100 ± 189%	8,100 ± 196%	0	0
Wisconsin	<50 ± 184%	400 ± 196%	<50 ± 92%	2,300 ± 78%	300 ± 108%	13,800 ± 90%	1.0 ± 205%	0.2 ± 211%
Mississippi Flyway Total	3,700 ± 46%	48,000 ± 47%	800	11,900	2,600 ± 43%	83,800 ± 51%		
New Mexico	0	<50 ± 188%	0	1,000 ± 134%	0	7,300 ± 143%	0	<0.1 ± 231%
Oklahoma	0	0	<50 ± 190%	500 ± 114%	<50 ± 190%	3,500 ± 177%	0	0
Texas	200 ± 158%	100 ± 95%	<50 ± 93%	6,700 ± 97%	300 ± 165%	23,500 ± 142%	4.5 ± 183%	<0.1 ± 136%
Central Flyway Total	200 ± 158%	200 ± 85%	100	8,100	300 ± 157%	34,300 ± 104%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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.

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Table 19 (continued). Preliminary estimates of gallinule harvest and hunter activity during the 2022 and 2023 hunting seasons.[a]

	Gallinule Harvest		Active Gallinule Hunters [b]		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Arizona	0	1,300 ± 182%	<50 ± 187%	1,300 ± 131%	100 ± 187%	1,900 ± 98%	0	1.0 ± 224%
California	<50 ± 187%	5,600 ± 119%	<50 ± 132%	2,900 ± 64%	<50 ± 148%	10,600 ± 96%	1.5 ± 229%	1.9 ± 135%
Nevada	0	0	<50 ± 185%	400 ± 137%	<50 ± 185%	1,900 ± 137%	0	0
Pacific Flyway Total	<50 ± 187%	6,900 ± 102%	1,100	5,500	1,200 ± 174%	47,800 ± 139%		
United States Total	24,100 ± 130%	106,800 ± 51%	2,600	34,500	6,600 ± 58%	195,700 ± 47%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 2022 and 2023 hunting seasons. [a]

	Rail Harvest		Active Rail Hunters [b]		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Connecticut	400 ± 136%	0	<50 ± 126%	0	<50 ± 134%	0	17.5 ± 185%	0
Delaware	0	0	1,700 ± 191%	<50 ± 193%	1,700 ± 189%	200 ± 193%	0	0
Florida	1,500 ± 115%	2,800 ± 107%	200 ± 59%	1,200 ± 98%	400 ± 77%	2,800 ± 105%	8.8 ± 130%	2.3 ± 145%
Georgia	2,200 ± 75%	3,200 ± 64%	200 ± 54%	200 ± 39%	300 ± 62%	600 ± 47%	13.4 ± 93%	14.5 ± 75%
Maine	800 ± 131%	0	100 ± 96%	100 ± 111%	100 ± 101%	100 ± 111%	7.0 ± 162%	0
Maryland	0	<50 ± 193%	<50 ± 193%	1,000 ± 190%	100 ± 193%	1,000 ± 190%	0	<0.1 ± 271%
Massachusetts	0	0	<50 ± 193%	700 ± 196%	<50 ± 193%	1,400 ± 196%	0	0
New Hampshire	0	0	0	0	0	0	0	0
New Jersey	700 ± 75%	2,400 ± 107%	200 ± 53%	200 ± 61%	200 ± 66%	400 ± 66%	3.5 ± 92%	13.2 ± 123%
New York	<50 ± 188%	0	<50 ± 91%	700 ± 174%	200 ± 130%	1,800 ± 188%	0.2 ± 209%	0
North Carolina	18,800 ± 183%	6,400 ± 120%	300 ± 68%	2,100 ± 121%	1,700 ± 167%	6,200 ± 130%	71.4 ± 195%	3.0 ± 170%
Pennsylvania	0	0	0	<50 ± 188%	0	<50 ± 188%	0	0
Rhode Island	0	<50 ± 193%	0	<50 ± 193%	0	100 ± 193%	0	1.0 ± 273%
South Carolina	0	30,100 ± 131%	0	3,300 ± 127%	0	3,800 ± 110%	0	9.2 ± 183%
Virginia	2,300 ± 74%	3,300 ± 76%	200 ± 46%	900 ± 158%	300 ± 54%	14,900 ± 189%	14.5 ± 87%	3.7 ± 175%
Atlantic Flyway Total	26,700 ± 129%	48,200 ± 84%	2,900	10,300	5,200 ± 85%	33,200 ± 91%		
Alabama	100 ± 149%	0	<50 ± 133%	<50 ± 100%	100 ± 149%	100 ± 123%	2.0 ± 200%	0
Arkansas	<50 ± 132%	<50 ± 191%	100 ± 83%	100 ± 106%	100 ± 83%	100 ± 128%	0.4 ± 156%	0.3 ± 218%
Illinois	<50 ± 187%	200 ± 117%	<50 ± 93%	500 ± 158%	200 ± 133%	10,600 ± 191%	0.2 ± 209%	0.3 ± 197%
Indiana	<50 ± 185%	100 ± 187%	<50 ± 80%	1,500 ± 108%	100 ± 85%	4,800 ± 118%	0.8 ± 201%	<0.1 ± 216%
Iowa	1,200 ± 159%	800 ± 95%	1,000 ± 181%	1,700 ± 65%	1,100 ± 171%	6,500 ± 99%	1.1 ± 241%	0.5 ± 115%
Kentucky	0	400 ± 196%	<50 ± 191%	400 ± 196%	400 ± 191%	900 ± 196%	0	1.0 ± 277%
Louisiana	500 ± 88%	6,200 ± 75%	200 ± 56%	1,500 ± 65%	900 ± 78%	6,500 ± 57%	3.4 ± 105%	4.0 ± 99%
Michigan	100 ± 141%	100 ± 111%	100 ± 57%	100 ± 57%	400 ± 87%	800 ± 86%	1.1 ± 153%	1.1 ± 125%
Minnesota	1,100 ± 107%	5,000 ± 118%	100 ± 54%	2,700 ± 82%	300 ± 64%	31,300 ± 117%	7.8 ± 120%	1.9 ± 144%
Mississippi	300 ± 152%	1,900 ± 166%	100 ± 93%	1,600 ± 192%	600 ± 168%	2,200 ± 150%	4.8 ± 178%	1.2 ± 254%

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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.

Continued next page.

Table 20 (continued). Preliminary estimates of rail harvest and hunter activity during the 2022 and 2023 hunting seasons. [a]

	Rail Harvest		Active Rail Hunters [b]		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2022	2023	2022	2023	2022	2023	2022	2023
Missouri	1,500 ± 87%	12,800 ± 119%	200 ± 43%	2,800 ± 109%	300 ± 49%	3,800 ± 112%	9.3 ± 97%	4.6 ± 161%
Ohio	200 ± 104%	2,300 ± 92%	100 ± 73%	2,100 ± 84%	100 ± 83%	3,900 ± 92%	2.3 ± 127%	1.1 ± 124%
Tennessee	0	0	<50 ± 189%	800 ± 196%	100 ± 189%	8,100 ± 196%	0	0
Wisconsin	100 ± 97%	1,500 ± 115%	100 ± 53%	3,500 ± 63%	400 ± 78%	19,300 ± 75%	1.4 ± 110%	0.4 ± 131%
Miss. Flyway Total	5,300 ± 51%	31,400 ± 56%	2,100	19,400	5,000 ± 49%	98,800 ± 49%		
Colorado	<50 ± 183%	2,000 ± 151%	<50 ± 183%	500 ± 103%	<50 ± 183%	2,600 ± 106%	3.0 ± 259%	4.0 ± 182%
Kansas	2,500 ± 160%	300 ± 107%	100 ± 81%	600 ± 185%	300 ± 106%	900 ± 138%	39.4 ± 179%	0.5 ± 214%
Nebraska	100 ± 121%	<50 ± 134%	100 ± 73%	<50 ± 76%	100 ± 90%	100 ± 93%	1.5 ± 141%	0.6 ± 154%
New Mexico	<50 ± 187%	500 ± 186%	<50 ± 187%	1,500 ± 109%	100 ± 187%	7,800 ± 133%	1.0 ± 264%	0.3 ± 215%
Oklahoma	<50 ± 134%	400 ± 95%	100 ± 85%	700 ± 88%	200 ± 89%	4,600 ± 139%	0.4 ± 159%	0.6 ± 130%
Texas	100 ± 98%	1,900 ± 170%	100 ± 75%	5,000 ± 111%	400 ± 123%	20,200 ± 163%	1.3 ± 124%	0.4 ± 203%
Wyoming	<50 ± 184%	100 ± 195%	<50 ± 129%	500 ± 89%	<50 ± 144%	1,400 ± 135%	0.5 ± 224%	0.2 ± 215%
Central Flyway Total	2,700 ± 145%	5,300 ± 86%	300	8,900	1,100 ± 58%	37,600 ± 94%		
Pacific Flyway Total	0	0	0	0	0	0	0	0
United States Total	34,800 ± 100%	84,900 ± 52%	5,300	38,600	11,300 ± 45%	169,600 ± 40%		

[a] Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

[b] 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 21. Preliminary estimates of rail harvest during the 2022 and 2023 hunting seasons. Species-specific estimates were derived from 5-year running averages of species composition estimates from the Migratory Bird Wing Collection Survey.

	Sora		Virginia		Clapper		King	
Flyway	2022	2023	2022	2023	2022	2023	2022	2023
Atlantic	1,900	2,300	300	200	24,500	45,700	0	0
Mississippi	5,300	31,400	<50	0	0	0	0	0
Central	2,300	4,400	400	900	0	0	0	0
U.S. Total	9,500	38,100	700	1,100	24,500	45,700	0	0

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

Seth Maddox, Alabama Department of Conservation and Natural Resources
Joseph Bonnell, Alaska Department of Fish and Game
Larisa Harding, Arizona Game and Fish Department
Susan Porter, Arkansas Game and Fish Commission
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Ed Gorman, Colorado Parks and Wildlife
Min Huang, Connecticut Department of Energy and Environmental Protection
Andrew Macy, Delaware Department of Natural Resources and Environmental Control
Andrew Fanning, Florida Fish and Wildlife Conservation Commission
Daniel Brown, Georgia Department of Natural Resources
Tara Reichert, Idaho Department of Fish and Game
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Tanner Little and Katie Landwehr, Indiana Department of Natural Resources
Orrin Jones, Iowa Department of Natural Resources
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Margaret Dexter, Minnesota Department of Natural Resources
Ursula Claxton, Mississippi Department of Wildlife, Fisheries, and Parks
Connor Hart and Rachel Vanausdall, Missouri Department of Conservation
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Doreen Richmond and Ben Lewis, Virginia Department of Wildlife Resources
Treg Christopher, Kyle Spragens, and Karen Lohman, Washington Department of Fish and Wildlife
Michael Peters, West Virginia Division of Natural Resources
Jessica Rees Lohr and Paul Frater, Wisconsin Department of Natural Resources
Noelle Smith, Wyoming Game and Fish Department

Appendix B. Names and affiliations of waterfowl wingbee participants.

Atlantic Flyway Wingbee

K. Arnorld, Maryland Department of Natural Resources; J. Bennett, Maryland Department of Natural Resources; C. Cain, U.S. Fish and Wildlife Service - DMBM/BMDM; R. Callahan, U.S. Fish and Wildlife Service; S. Catino, U.S. Fish and Wildlife Service - DMBM/BMDM; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BMDM; M. D'Elia, Maine Department of Inland Fisheries and Wildlife; J. Duncan, Pennsylvania Game Commission; K. Fleming, U.S. Fish and Wildlife Service - DMBM/BMDM; J. Foth, U.S. Fish and Wildlife Service – DBHC; P. Garretson, U.S. Fish and Wildlife Service - DMBM/BADS; C. Guerry, South Carolina Department of Natural Resources; T. Heim, Maryland Department of Natural Resources; N. Hengst, U.S. Fish and Wildlife Service; C. Hoh, New York State Department of Environmental Conservation; A. Hoyt, Pennsylvania Game Commission; A. Hunter, U.S. Fish and Wildlife Service; N. Johnson, Maine Department of Inland Fisheries and Wildlife; S. Liddle, New York State Department of Environmental Conservation; C. McDougal, West Virginia Department of Natural Resources; S. Niedringhaus, U.S. Fish and Wildlife Service; A. O'Donnell, U.S. Fish and Wildlife Service; P. Padding, U.S. Fish and Wildlife Service (retired); M. Peters, West Virginia Department of Natural Resources; A. Pomeroy, University of Delaware; R. Raftovich, U.S. Fish and Wildlife Service - DMBM/BMDM; V. Rettig, U.S. Fish and Wildlife Service; W. Rhodes, U.S. Fish and Wildlife Service - DMBM/MBSB; B. Rosamond, U.S. Fish and Wildlife Service; K. Smith, North Carolina Wildlife and Resources Commission; J. Stempka, Pennsylvania Game Commission; B. Struthers, University of Delaware; Z. Thomas, South Carolina Department of Natural Resources; C. Tucker, Ohio State University at Newark/Otterbein University; A. Walter, U.S. Fish and Wildlife Service - DMBM/BMDM; J. Woods, South Carolina Department of Natural Resources; S. Yates, U.S. Fish and Wildlife Service - DMBM/MBSB; N. Zimpfer, U.S. Fish and Wildlife Service - DMBM/BMDM.

Mississippi Flyway Wingbee

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Central Flyway Wingbee

T. Abshier, Ducks Unlimited; R. Assenheimer, Texas Parks and Wildlife Department; T. Bidrowski, Kansas Department of Wildlife, Parks & Tourism; J. Black, Kansas Department of Wildlife, Parks & Tourism; P. Bosco, U.S. Fish and Wildlife Service (retired); Z. Cain, U.S. Fish and Wildlife Service; S. Catino, U.S. Fish and Wildlife Service - DMBM/BMDM; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BMDM; M. Cline, New Mexico Department of Game and Fish; T. Cooper, U.S. Fish and Wildlife Service – DMBM/Central Flyway; E. Dittmer, University of Nebraska Lincoln; J. Dubovsky, U.S. Fish and Wildlife Service (retired); C. Dunagan, Texas Parks and Wildlife Department; A. Friensen, Kansas Department of Wildlife, Parks & Tourism; M. Gay, U.S. Fish and Wildlife Service; L. Govekar, U.S. Fish and Wildlife Service; M. Grovijahn, South Dakota Game, Fish, and Parks; K. Hand, Texas Parks and Wildlife Department; J. Harbit, Kansas Department of Wildlife, Parks & Tourism; J. Hewitt, North Dakota Game and Fish Department; N. Hill, North Dakota Game and Fish Department; H. Johnson, Texas Parks and Wildlife Department; B. Jones, U.S. Fish and Wildlife Service; K. Kraai, Texas Parks and Wildlife Department; K. Kriegel, Texas Parks and Wildlife Department; H. Lee, Nebraska Game and Parks Commission; T. Liddick, U.S. Fish and Wildlife Service - DMBM/ MBSB; D. Lindley, U.S. Fish and Wildlife Service; E. Love, Texas Parks and Wildlife Department; T. McClinton, Texas Parks and Wildlife Department; Stephen McDowell, Texas Parks and Wildlife Department; J. McKinney, Nebraska Game and Parks Commission; T. Menard, U.S. Fish and Wildlife Service; P. Moran, U.S. Fish and Wildlife Service; R. Murano, South Dakota Game, Fish, and Parks; C. Prohaska, Nebraska Game and Parks Commission; T. Ratliff, Kansas Department of Wildlife and Parks; J. Rockwell, Oklahoma Department of Wildlife Conservation; K. Schoonover, Oklahoma Department of Wildlife Conservation; R. Schultheis, Kansas Department of Wildlife and Parks; C. Shipes, Texas Parks and Wildlife Department; P. Smith, Oklahoma Department of Wildlife Conservation; M. Szymanski, North Dakota Game and Fish Department; J. Tapp, Nebraska Game and Parks Commission; P. Thorpe, U.S. Fish and Wildlife Service -DMBM/MBSB.

Pacific Flyway Wingbee

B. Alemania, California Waterfowl Association; T. Archibald, Idaho Department of Fish and Game; R. Blenk, California State Polytechnic University, Humboldt; C. Brady, California Department of Fish and Wildlife; C. Cain, U.S. Fish and Wildlife Service - DMBM/BMDM; R. Cain, California Waterfowl Association; S. Catino, U.S. Fish and Wildlife Service - DMBM/BMDM; E. Chan, U.S. Fish and Wildlife Service; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BMDM; P. Clements, Washington Department of Fish and Wildlife; S. Cordes, California Department of Fish and Wildlife (retired); D. Dankers, Volunteer; J. Dooley, U.S. Fish and Wildlife Service; R. Fitzgerald, California Department of Fish and Wildlife; G. Fleming, U.S. Fish and Wildlife Service; R. Friendly, U.S. Fish and Wildlife Service; G. Gerstenberg, California Department of Fish and Wildlife (retired); J. Laughlin, U.S. Department of Agriculture - APHIS/Wildlife Services; B. Lausch, U.S. Fish and Wildlife Service; M. Lehman, California Department of Fish and Wildlife; A. Mott, California Department of Fish and Wildlife; S. Nelson, Oregon Department of Fish and Wildlife; T. Peterson, Kalispel Tribe; B. Reishus, Oregon Department of Fish and Wildlife; W. Rhodes, U.S. Fish and Wildlife Service - DMBM/MBSB; O. Rocha, California Department of Fish and Wildlife; W. Rodin, Oregon Department of Fish and Wildlife; N. Saake, Nevada Department of Wildlife (retired); J. Sands, U.S. Fish and Wildlife Service - Region 1; W. Schock, U.S. Fish and Wildlife Service; R. Shinn, California Department of Fish and Wildlife; K. Soltysiak, Washington Department of Fish and Wildlife; K. Spragens, Washington Department of Fish and Wildlife; D. Stitts, California Department of Fish and Wildlife; M. Thomas, U.S. Department of Agriculture - APHIS/Wildlife Services; J. Urmston, U.S. Fish and Wildlife Service; B. Vann, Nevada Department of Wildlife; K. Walton, Oregon

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