



U.S. Fish & Wildlife Service

Migratory Bird Hunting Activity and Harvest during the 2019–20 and 2020–21 Hunting Seasons

August 2021



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Suggested Citation:

Raftovich, R.V., K.K. Fleming, S.C. Chandler, and C.M. Cain. 2021. Migratory bird hunting activity and harvest during the 2019–20 and 2020–21 hunting seasons. U.S. Fish and Wildlife Service, Laurel, Maryland, USA.

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Abstract: National surveys of migratory bird hunters were conducted during the 2019 and 2020 hunting seasons. Hunters of the following types of migratory birds were surveyed: waterfowl (family Anatidae), doves (mourning [*Zenaida macroura*] and white-winged [*Z. asiatica*]), band-tailed pigeon (*Patagioenas fasciata*), American woodcock (*Scolopax minor*), Wilson's snipe (*Gallinago delicata*), American coot (*Fulica americana*), gallinules (common gallinule [*Gallinula galeata*] and purple gallinule [*Porphyrrio 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 9,720,800 ($\pm 5\%$) ducks and 2,691,900 ($\pm 5\%$) geese in the 2019 season, and more than 1 million waterfowl hunters harvested 11,139,100 ($\pm 4\%$) ducks and 2,879,800 ($\pm 5\%$) geese in the 2020 season. Mallard (*Anas platyrhynchos*), green-winged teal (*A. crecca*), gadwall (*Mareca strepera*), wood duck (*Aix sponsa*), 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 662,900 hunters harvested 9,983,500 ($\pm 7\%$) mourning doves in 2019 and 745,600 hunters harvested 11,704,100 ($\pm 6\%$) in 2020. Woodcock hunters numbered about 78,000 in 2019 and 100,000 in 2020, and harvested 171,300 ($\pm 22\%$) in 2019, and 174,800 ($\pm 17\%$) in 2020. About 21,300 people hunted snipe in 2019 and 25,100 in 2020, and they harvested 92,700 ($\pm 60\%$) and 93,000 ($\pm 59\%$) snipe in 2019 and 2020, respectively. Coot hunters (about 27,800 in 2019 and 27,500 in 2020) harvested 242,600 ($\pm 74\%$) coots in 2019 and 182,700 ($\pm 64\%$) in 2020. Gallinule hunters (about 2,200 in 2019 and 6,600 in 2020) harvested 19,700 ($\pm 103\%$) in 2019 and 7,100 ($\pm 88\%$) in 2020. Approximately 6,900 rail hunters harvested 29,800 ($\pm 53\%$) rails in 2019 and 6,400 rail hunters harvested 33,200 ($\pm 64\%$) rails in 2020.

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 through the 2001-02 hunting season, after which it was replaced by a new migratory game bird harvest survey system. In 1992, the FWS and State Fish and Wildlife Agencies (States) established the Migratory Bird Harvest Information Program (HIP), which was fully operational nationwide by 1999 (Elden et al. 2002). This cooperative State-Federal program requires licensed migratory game bird hunters to register annually in each state in which they hunt. Each State is responsible for collecting the name, address, and date of birth from each migratory bird hunter, asking each of them a series of general screening questions about their his/her hunting success the previous year, and sending 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 2019-20 and 2020-21 hunting seasons. These estimates are preliminary, pending (1) final counts of the number of HIP registrants in each state each season, and (2) complete audits of all survey response data.

HIP Survey Design and Methods

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

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. As a check on recording and for hunters who forgot to record their daily hunting information throughout the season, or did not receive the form until after the hunting season began, space was provided on the form to record season totals. Hunter response was voluntary.

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

Analysis. Standard analyses for stratified samples (Cochran 1977, Steele and Torrie 1980) were used to obtain estimates of harvest and hunter activity for each state and species or species-group combination. The proportion of respondents who hunted (active hunters), their average days hunted and their average seasonal harvest were calculated and the corresponding totals estimated (active hunters, days hunted, birds bagged) at the state level. Variance estimates for these parameters were also calculated and converted to 95% confidence intervals. The number of days afield and the number of birds harvested were also estimated at the management unit and national levels, along with their corresponding 95% confidence intervals. However, the total number of active hunters (and any averages per active hunter) could not be estimated at the management unit or national levels because some people hunted migratory birds in more than one state. To 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 1963-2020 were reported in “American woodcock population status, 2021” (Seamans and Rau 2021). 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 2008-2020 were reported in “Mourning dove population status, 2021” (Seamans 2021).

Survey Results

Waterfowl Hunter Activity and Harvest (Tables 1-7, Figures 1-3). HIP waterfowl harvest survey sample sizes and response rates were 88,495 hunters and 33%, respectively, for 2019-20, and 104,225 hunters and 33% for the 2020-21 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 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.

Waterfowl Age and Sex Ratios (Tables 8-12, Figures 3-6). The 2019-20 Waterfowl Parts Survey collected 85,740 duck wings and 15,862 goose tails and primary tips from 4,572 hunters; the 2020-21 sample consisted of 90,693 duck wings and 16,136 goose tails and primary wing tips from 4,662 hunters. State-specific mallard age ratios and flyway-level age ratios for other ducks species are reported in Tables 8 and 9, respectively, followed by state-specific mallard sex ratios (Table 10) and flyway-level sex ratios for other duck species (Table 11). Table 12 gives age ratios for geese. Figures 3-6 show the long-term trends in age ratios of mallards (Figure 3), northern pintails (Figure 4), American black ducks and wood ducks (Figure 5) and lesser scaup (Figure 6).

Dove and Band-tailed Pigeon Hunter Activity and Harvest (Tables 13-15). The dove and band-tailed pigeon estimates were based on samples of 42,961 hunters in 2019-20 (40% response rate) and 43,770 hunters in 2020-21 (40% 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 2019-20 survey had a sample size of 12,589 hunters and a 47% response rate; the 2020-21 survey sample size and response rate were 16,838 hunters and 46%.

Snipe, Coot, Gallinule, and Rail Hunter Activity and Harvest (Tables 17-21). The sample for the 2019-20 snipe, coot, gallinule, and rail harvest survey was 27,226 hunters (41% response rate) and 29,835 hunters (41% response rate) for the 2020-21 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 2019-20 estimates are based on the species composition of 1,452 rail wings collected from 110 hunters during the period 2015-2019, and the 2020-21 estimates are based on 1,483 rail wings collected from 110 hunters during the period 2016-2020.

Alaska Sandhill Crane Hunter Activity and Harvest Estimates. The estimates presented below were derived from surveys of 527 (2019-20, 50% response rate) and 739 (2020-21, 53% response rate) Alaska migratory bird hunters. For Alaska's 2019 season, we estimated that 799 active sandhill crane hunters spent 7,748 days hunting cranes and harvested 799 birds. In 2020, an estimated 818 active hunters spent 2,354 days hunting cranes and harvested 1409 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 2019 and 2020 seasons were reported in "Status and harvests of sandhill cranes: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern populations" (Seamans 2021).

Acknowledgments

The Branch of Monitoring and Data Management's survey clerks (Tommy Ceaser II, Lamar Heckstall, and Pamela Mathias), flyway speciators (Stephanie Catino, Chris Cain, and Kyle Point), and secretary (Susane Finucane) were major contributors to this project.

The HIP and Waterfowl Parts surveys could not be conducted without the close cooperation of participating States. We appreciate the efforts of all State personnel who were involved with the HIP at various levels, as well as all who helped with the Waterfowl Parts Surveys at one of the 4 "wingbees." Due to COVID restrictions, the wingbees were conducted remotely, rather than in person, this past year. We thank the many participants who devoted their time to coordinating, shipping, and processing parts, to make this effort a success. The names and affiliations of the people who were primarily responsible for coordinating the HIP program in each state are included in Appendix A. The names and affiliations of wingbee participants are in Appendix B.

We also would like to acknowledge Jack Bohannon and staff at the Flint Hills NWR for providing support for the Central Flyway wingbee and Brett Galyean at the Coleman National Fish Hatchery for providing support for the Pacific Flyway wingbee.

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Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Connecticut		Delaware		Florida	
	2019	2020	2019	2020	2019	2020
Mallard	3,434	4,758	8,698	10,535	75	542
Domestic Mallard	0	0	91	282	151	232
Black Duck	1,200	2,035	3,262	6,020	0	0
Mallard x Black Hybrid	41	180	272	188	75	0
Mottled Duck	0	0	0	0	7,460	9,368
Gadwall	248	389	1,993	2,352	603	465
Wigeon	0	150	91	564	2,110	542
Green-winged Teal	124	569	4,077	8,842	2,261	2,168
Blue-winged/Cinnamon Teal	0	30	0	282	54,855	35,690
Northern Shoveler	0	30	1,540	1,881	1,808	1,471
Northern Pintail	0	120	997	2,069	1,055	929
Wood Duck	2,276	2,155	1,359	3,669	12,357	15,329
Redhead	0	0	0	0	1,884	3,794
Canvasback	0	30	91	0	226	232
Greater Scaup	497	479	0	188	75	387
Lesser Scaup	41	60	0	94	2,110	6,039
Ring-necked Duck	83	150	0	94	35,189	43,354
Goldeneyes	41	0	0	0	75	0
Bufflehead	869	569	1,178	94	2,863	1,548
Ruddy Duck	0	60	0	188	754	2,090
Long-tailed Duck	3,140	10	142	0	0	77
Eiders	95	187	0	0	0	0
Scoters	0	114	2,268	1,607	226	0
Hooded Merganser	331	569	272	188	904	1,471
Other Mergansers	414	299	0	0	226	542
Other Ducks	0	0	0	94	8,590	4,258
Total Duck Harvest	12,800±32%	12,900±28%	26,300±25%	39,200±38%	135,900±14%	130,500±16%
Total Active Duck Hunters^a	1,900±33%	1,800±23%	3,200±13%	4,100±15%	14,000±19%	14,500±21%
Total Duck Hunter Days Afield^a	10,300±28%	12,200±22%	18,800±20%	24,300±20%	71,200±17%	60,100±13%
Seasonal Duck Harvest Per Hunter^a	5.0±46%	6.9±36%	7.5±28%	9.1±40%	9.7±24%	9.0±26%
Goose Species Composition						
Canada Goose	9,203	11,180	7,894	11,558	3,677	1,542
Snow Goose	0	0	236	1,149	1,839	0
Blue Goose	0	0	118	0	0	771
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	836	634	395	293	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	10,000±30%	11,800±57%	8,600±33%	13,000±29%	5,500±140%	2,300±86%
Total Active Goose Hunters^b	1,700±27%	1,500±26%	2,300±15%	3,300±17%	900±73%	1,300±61%
Total Goose Hunter Days Afield^b	10,800±31%	10,600±24%	7,800±20%	17,500±24%	2,200±92%	3,000±71%
Seasonal Goose Harvest Per Hunter^b	5.3±40%	7.6±63%	3.6±36%	3.9±33%	6.1±158%	1.8±106%
Active Waterfowl Hunters^c	2,500±28%	2,500±20%	3,900±11%	5,200±13%	14,100±19%	14,500±21%
Sample Sizes						
DuckWings	266	520	298	406	1,804	1,686
GooseTails	201	303	77	200	3	3

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Georgia		Maine		Maryland	
	2019	2020	2019	2020	2019	2020
Mallard	6,659	5,268	6,324	10,375	33,242	27,527
Domestic Mallard	202	0	31	137	451	324
Black Duck	0	188	2,724	3,504	8,677	13,763
Mallard x Black Hybrid	0	0	94	275	225	324
Mottled Duck	0	0	0	0	0	0
Gadwall	2,220	0	0	69	2,141	3,400
Wigeon	202	0	250	69	1,127	1,781
Green-winged Teal	1,009	564	1,941	2,130	4,057	6,963
Blue-winged/Cinnamon Teal	10,695	2,446	219	618	1,014	1,943
Northern Shoveler	202	376	63	0	338	810
Northern Pintail	0	188	94	206	225	1,781
Wood Duck	72,446	80,148	4,602	9,757	8,001	14,897
Redhead	1,009	2,258	0	0	2,704	2,105
Canvasback	0	4,704	0	0	789	972
Greater Scaup	0	0	31	0	5,409	5,829
Lesser Scaup	1,009	2,258	31	69	5,183	6,153
Ring-necked Duck	10,695	12,417	877	1,237	451	324
Goldeneyes	0	0	376	893	338	972
Bufflehead	202	1,881	689	2,405	12,959	17,488
Ruddy Duck	605	1,505	0	69	676	162
Long-tailed Duck	0	0	1,321	2,380	6,885	5,296
Eiders	0	0	1,674	2,167	0	0
Scoters	0	2,258	1,057	2,311	22,466	13,611
Hooded Merganser	3,229	3,951	407	893	338	648
Other Mergansers	0	0	250	893	225	0
Other Ducks	0	564	0	0	0	0
Total Duck Harvest	110,400±16%	121,000±16%	23,100±20%	40,500±21%	117,900±16%	127,100±15%
Total Active Duck Hunters^a	15,600±18%	19,900±16%	4,100±13%	4,800±12%	15,800±10%	17,100±8%
Total Duck Hunter Days Afield^a	87,100±21%	105,700±21%	19,900±18%	26,500±19%	65,800±12%	82,800±13%
Seasonal Duck Harvest Per Hunter^a	7.1±24%	6.1±23%	4.6±24%	7.1±24%	5.6±19%	6.4±17%
Goose Species Composition						
Canada Goose	21,332	25,483	7,214	14,346	45,452	54,568
Snow Goose	0	0	0	0	1,680	1,551
Blue Goose	0	0	0	0	1,383	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	485	0	0	0	0
Brant	0	0	0	0	218	303
Other Geese	0	0	0	0	99	0
Total Goose Harvest	21,300±35%	26,000±34%	7,200±26%	14,300±37%	48,800±16%	56,400±12%
Total Active Goose Hunters^b	7,900±24%	11,400±21%	2,600±17%	3,200±15%	16,100±9%	16,200±7%
Total Goose Hunter Days Afield^b	44,300±45%	55,300±32%	11,200±29%	17,200±24%	69,700±12%	81,200±11%
Seasonal Goose Harvest Per Hunter^b	2.7±43%	2.3±41%	2.8±31%	4.4±40%	3.0±18%	3.5±14%
Active Waterfowl Hunters^c	16,100±18%	21,300±16%	4,700±12%	6,000±11%	26,900±6%	25,100±6%
Sample Sizes						
DuckWings	547	643	653	537	867	751
GooseTails	122	107	299	163	495	399

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Massachusetts		New Hampshire		New Jersey	
	2019	2020	2019	2020	2019	2020
Mallard	4,974	5,658	3,366	3,026	5,329	6,372
Domestic Mallard	61	40	0	0	0	60
Black Duck	3,009	3,435	766	1,157	5,179	5,771
Mallard x Black Hybrid	61	81	82	59	150	60
Mottled Duck	0	0	0	0	0	0
Gadwall	0	0	0	0	225	541
Wigeon	61	0	0	30	225	301
Green-winged Teal	737	768	192	564	826	3,427
Blue-winged/Cinnamon Teal	0	0	0	30	0	120
Northern Shoveler	0	0	0	0	0	361
Northern Pintail	61	40	0	59	0	481
Wood Duck	3,623	3,112	3,694	3,590	5,480	6,492
Redhead	0	0	0	0	0	0
Canvasback	0	0	0	0	0	60
Greater Scaup	246	121	0	0	1,351	1,202
Lesser Scaup	184	202	0	0	525	240
Ring-necked Duck	184	121	27	30	300	180
Goldeneyes	307	40	0	30	0	0
Bufflehead	3,991	3,152	82	119	14,712	11,482
Ruddy Duck	0	0	0	0	0	60
Long-tailed Duck	1,562	557	9	35	1,228	801
Eiders	5,355	6,339	44	177	0	146
Scoters	4,463	2,299	202	283	8,289	5,751
Hooded Merganser	307	404	219	267	525	1,924
Other Mergansers	675	1,253	55	208	300	842
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	29,900±35%	27,600±25%	8,700±23%	9,700±20%	44,600±19%	46,700±20%
Total Active Duck Hunters^a	2,900±33%	4,100±27%	1,700±25%	2,400±19%	5,800±10%	5,600±11%
Total Duck Hunter Days Afield^a	15,500±25%	21,400±27%	11,400±24%	15,200±22%	26,600±16%	31,800±15%
Seasonal Duck Harvest Per Hunter^a	6.3±48%	4.5±36%	4.9±34%	3.8±28%	6.1±22%	7.1±23%
Goose Species Composition						
Canada Goose	8,747	12,313	4,424	3,634	13,642	19,992
Snow Goose	0	0	0	46	162	2,041
Blue Goose	0	0	0	0	0	70
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	534	1,193	0	0	3,664	4,779
Other Geese	0	0	0	0	0	0
Total Goose Harvest	9,300±45%	13,500±39%	4,400±49%	3,700±25%	17,500±27%	26,900±23%
Total Active Goose Hunters^b	3,600±26%	4,300±26%	1,400±27%	2,100±21%	3,600±15%	4,000±14%
Total Goose Hunter Days Afield^b	21,100±32%	26,700±34%	9,400±39%	12,400±26%	13,000±23%	24,800±19%
Seasonal Goose Harvest Per Hunter^b	2.4±52%	2.9±46%	3.2±56%	1.8±33%	3.9±31%	5.5±27%
Active Waterfowl Hunters^c	4,700±28%	5,800±22%	2,000±24%	2,800±18%	7,100±9%	7,500±9%
Sample Sizes						
DuckWings	352	588	339	323	499	757
GooseTails	154	210	94	81	213	384

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	New York		North Carolina		Pennsylvania	
	2019	2020	2019	2020	2019	2020
Mallard	51,576	35,164	25,829	36,865	22,159	23,917
Domestic Mallard	120	95	861	1,623	205	0
Black Duck	12,969	9,183	3,788	2,550	3,898	2,322
Mallard x Black Hybrid	179	523	344	0	103	116
Mottled Duck	0	0	0	0	0	0
Gadwall	2,331	1,808	11,193	17,853	410	1,742
Wigeon	3,705	3,426	9,471	12,520	103	464
Green-winged Teal	7,949	10,421	14,981	41,734	1,744	1,625
Blue-winged/Cinnamon Teal	418	1,190	5,682	4,869	616	813
Northern Shoveler	538	761	1,894	9,042	0	116
Northern Pintail	1,972	2,522	2,755	8,579	205	348
Wood Duck	26,296	18,177	100,561	110,363	23,184	16,138
Redhead	2,092	1,523	11,020	8,347	0	464
Canvasback	120	238	0	0	205	0
Greater Scaup	2,988	2,236	2,239	2,550	923	464
Lesser Scaup	1,255	809	3,099	12,056	1,026	116
Ring-necked Duck	2,211	1,380	5,682	25,736	616	581
Goldeneyes	6,335	2,665	0	0	923	348
Bufflehead	5,618	7,090	12,915	15,302	3,385	2,786
Ruddy Duck	60	619	1,550	3,014	0	0
Long-tailed Duck	11,058	7,261	0	0	0	0
Eiders	0	4,022	0	0	0	0
Scoters	3,744	2,681	2,583	4,869	0	0
Hooded Merganser	2,092	2,379	15,325	4,869	718	1,277
Other Mergansers	5,797	7,756	861	696	1,949	1,858
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	151,400±22%	123,900±23%	232,600±20%	323,400±17%	62,400±29%	55,500±22%
Total Active Duck Hunters^a	16,100±13%	15,800±15%	29,200±17%	29,500±16%	13,900±30%	15,500±23%
Total Duck Hunter Days Afield^a	92,600±15%	94,300±18%	172,400±22%	184,100±19%	66,800±27%	72,100±25%
Seasonal Duck Harvest Per Hunter^a	8.8±26%	7.1±28%	8.0±26%	11.0±23%	4.5±42%	3.6±32%
Goose Species Composition						
Canada Goose	88,941	72,986	47,516	30,321	95,991	70,376
Snow Goose	8,135	5,770	0	0	2,743	0
Blue Goose	310	72	0	0	457	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	152	0
Brant	5,179	4,376	2,717	990	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	102,600±23%	83,200±22%	50,200±65%	31,300±31%	99,300±32%	70,400±36%
Total Active Goose Hunters^b	11,200±12%	12,700±13%	17,100±22%	17,400±22%	18,600±19%	18,700±19%
Total Goose Hunter Days Afield^b	61,300±24%	75,200±27%	58,700±28%	81,900±36%	91,100±21%	82,000±21%
Seasonal Goose Harvest Per Hunter^b	8.7±26%	6.2±25%	2.8±68%	1.7±38%	5.3±37%	3.8±41%
Active Waterfowl Hunters^c	18,900±11%	18,000±14%	29,500±17%	30,900±16%	21,300±25%	25,800±18%
Sample Sizes						
DuckWings	2,381	2,408	1,351	1,395	608	478
GooseTails	1,324	1,171	42	73	652	411

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Rhode Island		South Carolina		Vermont	
	2019	2020	2019	2020	2019	2020
Mallard	829	1,153	12,077	6,219	6,127	8,250
Domestic Mallard	0	17	853	113	0	0
Black Duck	863	1,068	995	452	1,340	2,205
Mallard x Black Hybrid	17	0	0	0	0	41
Mottled Duck	0	0	1,279	226	0	0
Gadwall	68	153	6,252	3,392	0	41
Wigeon	85	339	710	226	287	408
Green-winged Teal	271	17	11,367	9,611	1,627	2,246
Blue-winged/Cinnamon Teal	0	0	8,525	6,671	96	204
Northern Shoveler	0	0	3,552	1,583	0	82
Northern Pintail	34	34	426	0	96	490
Wood Duck	338	915	67,206	96,340	5,170	2,573
Redhead	0	0	426	226	0	41
Canvasback	0	0	0	0	0	0
Greater Scaup	237	102	0	0	96	163
Lesser Scaup	17	17	426	452	144	245
Ring-necked Duck	0	34	13,498	8,933	287	408
Goldeneyes	271	136	0	0	1,723	1,184
Bufflehead	1,066	712	568	2,827	96	41
Ruddy Duck	0	0	0	226	0	0
Long-tailed Duck	24	51	0	113	0	41
Eiders	830	1,878	0	0	0	0
Scoters	1,245	660	426	1,357	0	204
Hooded Merganser	237	170	2,273	1,922	287	613
Other Mergansers	491	593	284	339	814	408
Other Ducks	0	0	0	113	0	0
Total Duck Harvest	6,900±24%	8,000±30%	131,100±29%	141,300±24%	18,200±36%	19,900±28%
Total Active Duck Hunters^a	800±14%	1,000±15%	18,300±25%	23,100±21%	3,000±18%	2,200±17%
Total Duck Hunter Days Afield^a	5,000±21%	5,700±18%	87,600±31%	103,000±25%	15,700±32%	15,600±17%
Seasonal Duck Harvest Per Hunter^a	6.0±28%	5.4±34%	7.2±38%	6.1±32%	6.1±41%	9.0±33%
Goose Species Composition						
Canada Goose	2,119	2,135	12,743	14,107	5,573	11,783
Snow Goose	13	45	0	0	0	116
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	0	0	403	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	410	777	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	2,500±31%	3,000±53%	12,700±53%	14,500±42%	5,600±28%	11,900±26%
Total Active Goose Hunters^b	700±17%	700±19%	4,000±35%	7,000±30%	1,800±22%	2,100±21%
Total Goose Hunter Days Afield^b	3,800±24%	3,400±24%	15,000±54%	28,400±52%	8,300±30%	13,700±23%
Seasonal Goose Harvest Per Hunter^b	3.3±35%	3.2±56%	3.2±63%	2.1±51%	3.0±36%	5.6±34%
Active Waterfowl Hunters^c	1,100±11%	1,400±11%	18,300±25%	23,600±20%	3,500±17%	3,000±18%
Sample Sizes						
DuckWings	371	373	923	1,250	380	487
GooseTails	215	158	41	36	218	103

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Virginia		West Virginia		Flyway Total	
	2019	2020	2019	2020	2019	2020
Mallard	29,032	33,190	2,523	1,972	222,255	220,791
Domestic Mallard	298	163	0	29	3,322	3,117
Black Duck	10,273	10,412	374	206	59,316	64,274
Mallard x Black Hybrid	447	813	19	29	2,110	2,690
Mottled Duck	0	0	0	0	8,738	9,594
Gadwall	14,293	10,575	150	0	42,126	42,779
Wigeon	1,191	1,302	37	0	19,655	22,122
Green-winged Teal	5,658	9,599	75	324	58,893	101,571
Blue-winged/Cinnamon Teal	298	1,139	19	235	82,437	56,280
Northern Shoveler	149	813	19	29	10,103	17,356
Northern Pintail	1,042	1,139	0	0	8,963	18,986
Wood Duck	26,352	23,591	1,364	2,001	364,310	409,246
Redhead	0	0	0	0	19,136	18,757
Canvasback	149	1,139	0	0	1,579	7,374
Greater Scaup	0	325	0	0	14,091	14,048
Lesser Scaup	596	2,278	0	29	15,647	31,117
Ring-necked Duck	3,722	4,718	19	0	73,841	99,697
Goldeneyes	0	813	0	59	10,390	7,140
Bufflehead	12,804	17,083	0	29	73,997	84,609
Ruddy Duck	596	813	0	88	4,240	8,895
Long-tailed Duck	2,069	459	0	0	27,439	17,081
Eiders	0	0	0	0	7,998	14,915
Scoters	10,347	5,047	0	0	57,316	43,051
Hooded Merganser	4,020	2,603	37	88	31,522	24,235
Other Mergansers	1,191	976	75	29	13,608	16,692
Other Ducks	0	0	0	0	8,590	5,030
Total Duck Harvest	124,500±29%	129,000±20%	4,700±32%	5,200±22%	1,241,600±7%	1,361,400±7%
Total Active Duck Hunters^a	16,400±21%	16,800±17%	1,100±25%	1,200±21%	163,800	179,300
Total Duck Hunter Days Afield^a	70,000±19%	92,500±17%	5,300±30%	7,900±23%	841,900±7%	955,200±6%
Seasonal Duck Harvest Per Hunter^a	6.9±35%	7.4±27%	4.2±41%	4.2±31%		
Goose Species Composition						
Canada Goose	30,819	30,350	3,305	4,388	408,592	391,061
Snow Goose	0	334	0	0	14,807	11,052
Blue Goose	0	0	16	0	2,284	913
Ross' Goose	0	0	0	0	0	403
White-fronted Goose	0	0	0	0	152	485
Brant	2,176	1,378	0	0	16,129	14,723
Other Geese	0	0	0	0	99	0
Total Goose Harvest	33,000±37%	32,100±21%	3,300±29%	4,400±32%	442,100±13%	418,600±9%
Total Active Goose Hunters^b	11,800±20%	13,300±18%	1,100±24%	1,200±22%	106,500	120,400
Total Goose Hunter Days Afield^b	46,600±27%	67,900±24%	5,800±32%	7,100±24%	480,100±9%	608,300±8%
Seasonal Goose Harvest Per Hunter^b	2.6±42%	2.3±28%	2.9±37%	3.6±39%		
Active Waterfowl Hunters^c	17,700±20%	21,300±15%	1,300±24%	1,500±20%	193,600	216,300
Sample Sizes						
DuckWings	777	795	252	175	12,668	13,572
GooseTails	300	188	211	87	4,661	4,077

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Alabama		Arkansas		Illinois	
	2019	2020	2019	2020	2019	2020
Mallard	9,043	9,614	509,879	363,875	136,364	91,989
Domestic Mallard	0	0	0	0	0	0
Black Duck	0	0	219	222	2,622	714
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	11,681	10,383	213,397	187,498	26,552	13,713
Wigeon	377	769	14,868	10,454	4,261	3,857
Green-winged Teal	1,696	2,692	169,668	118,771	16,882	24,854
Blue-winged/Cinnamon Teal	5,275	8,460	12,025	19,350	34,583	25,711
Northern Shoveler	188	3,076	55,754	64,946	8,851	6,428
Northern Pintail	565	385	18,803	19,795	5,900	6,428
Wood Duck	29,390	75,370	65,375	71,841	28,355	14,998
Redhead	188	769	2,186	1,112	3,278	2,143
Canvasback	1,319	1,923	0	445	3,606	1,286
Greater Scaup	0	0	219	0	2,458	429
Lesser Scaup	377	385	1,531	3,781	8,523	4,142
Ring-necked Duck	1,884	4,230	18,585	17,349	11,801	7,856
Goldeneyes	0	0	219	1,779	5,900	1,857
Bufflehead	4,710	8,844	1,749	4,448	14,423	1,428
Ruddy Duck	0	385	1,531	0	6,556	571
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	983	0
Hooded Merganser	2,449	1,154	4,810	3,336	4,589	2,000
Other Mergansers	188	769	0	0	1,475	286
Other Ducks	0	0	219	0	0	0
Total Duck Harvest	69,300±44%	129,200±25%	1,091,000±12%	889,000±10%	328,000±83%	210,700±21%
Total Active Duck Hunters^a	10,600±29%	13,100±20%	75,400±10%	56,300±8%	21,800±15%	26,200±18%
Total Duck Hunter Days Afield^a	53,000±35%	76,500±21%	496,800±17%	450,700±11%	176,400±27%	174,000±18%
Seasonal Duck Harvest Per Hunter^a	6.5±52%	9.9±32%	14.5±16%	15.8±13%	15.0±85%	8.0±28%
Goose Species Composition						
Canada Goose	2,897	9,961	10,326	17,696	96,995	102,824
Snow Goose	0	302	19,275	24,185	694	1,271
Blue Goose	0	0	8,261	12,977	347	477
Ross' Goose	0	0	6,884	2,359	174	159
White-fronted Goose	0	0	83,986	74,913	6,767	3,973
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	2,900±77%	10,300±50%	128,700±19%	132,100±43%	105,000±45%	108,700±29%
Total Active Goose Hunters^b	2,200±70%	3,700±43%	30,700±14%	21,400±11%	16,700±17%	20,600±19%
Total Goose Hunter Days Afield^b	11,400±91%	13,400±47%	127,000±19%	123,800±17%	128,200±22%	169,000±39%
Seasonal Goose Harvest Per Hunter^b	1.3±104%	2.8±66%	4.2±24%	6.2±44%	6.3±48%	5.3±35%
Active Waterfowl Hunters^c	10,600±29%	13,100±20%	77,500±10%	59,700±8%	25,500±14%	34,400±15%
Sample Sizes						
DuckWings	368	336	4,990	3,997	2,001	1,475
GooseTails	26	34	374	224	605	684

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Indiana		Iowa		Kentucky	
	2019	2020	2019	2020	2019	2020
Mallard	39,655	46,012	33,461	32,416	52,686	41,935
Domestic Mallard	0	0	112	0	0	0
Black Duck	935	1,399	224	125	489	796
Mallard x Black Hybrid	0	140	0	0	163	133
Mottled Duck	0	0	0	0	0	0
Gadwall	9,079	5,454	8,281	15,210	5,383	9,422
Wigeon	534	979	3,245	5,236	1,142	1,725
Green-winged Teal	2,003	5,035	13,093	27,927	3,099	8,095
Blue-winged/Cinnamon Teal	9,079	6,713	26,746	45,631	816	2,521
Northern Shoveler	1,869	2,797	4,253	4,987	1,468	3,981
Northern Pintail	935	1,259	2,350	3,865	1,794	1,858
Wood Duck	9,880	6,433	22,829	24,935	7,014	11,811
Redhead	1,602	1,678	1,455	1,496	0	1,991
Canvasback	668	420	1,455	1,870	0	796
Greater Scaup	801	699	0	499	489	0
Lesser Scaup	801	839	1,007	1,870	489	531
Ring-necked Duck	1,202	1,538	5,372	5,112	2,447	4,379
Goldeneyes	668	839	1,007	499	489	0
Bufflehead	935	559	1,902	997	326	398
Ruddy Duck	0	140	224	125	0	0
Long-tailed Duck	0	0	112	0	0	0
Eiders	134	0	0	0	0	0
Scoters	134	0	0	249	0	0
Hooded Merganser	401	699	224	748	4,241	5,176
Other Mergansers	0	0	224	249	0	0
Other Ducks	134	0	0	0	0	0
Total Duck Harvest	81,400±18%	83,600±16%	127,600±19%	174,000±22%	82,500±16%	95,500±12%
Total Active Duck Hunters^a	10,900±15%	9,900±14%	10,300±12%	11,500±19%	7,400±29%	11,300±20%
Total Duck Hunter Days Afield^a	71,600±22%	109,000±62%	77,000±17%	114,900±34%	56,600±19%	90,000±21%
Seasonal Duck Harvest Per Hunter^a	7.5±23%	8.4±21%	12.4±23%	15.2±29%	11.2±34%	8.5±24%
Goose Species Composition						
Canada Goose	45,721	61,417	52,644	60,600	21,233	20,894
Snow Goose	0	337	0	267	0	1,510
Blue Goose	269	337	172	267	0	1,259
Ross' Goose	0	0	172	0	0	252
White-fronted Goose	1,883	4,049	172	267	582	3,776
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	47,900±20%	66,100±23%	53,200±25%	61,400±31%	21,800±18%	27,700±18%
Total Active Goose Hunters^b	10,500±14%	11,500±14%	8,200±15%	9,300±20%	6,700±15%	8,000±14%
Total Goose Hunter Days Afield^b	63,800±19%	78,800±17%	58,500±21%	91,700±43%	50,200±20%	75,300±21%
Seasonal Goose Harvest Per Hunter^b	4.5±25%	5.7±27%	6.5±29%	6.6±37%	3.2±23%	3.5±22%
Active Waterfowl Hunters^c	13,200±14%	11,900±13%	12,100±11%	13,600±18%	8,100±30%	11,800±20%
Sample Sizes						
DuckWings	610	598	1,140	1,396	506	720
GooseTails	178	196	309	230	75	110

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Louisiana		Michigan		Minnesota	
	2019	2020	2019	2020	2019	2020
Mallard	20,743	23,237	97,578	74,043	98,723	107,860
Domestic Mallard	0	0	0	0	0	0
Black Duck	329	0	10,214	5,939	636	0
Mallard x Black Hybrid	0	0	547	198	0	0
Mottled Duck	9,439	11,619	0	0	0	0
Gadwall	119,961	125,329	3,830	5,147	29,447	21,787
Wigeon	6,805	13,904	6,384	6,533	11,652	12,911
Green-winged Teal	113,705	109,520	6,748	9,701	22,668	42,498
Blue-winged/Cinnamon Teal	152,448	235,991	1,824	5,345	64,191	92,528
Northern Shoveler	23,926	31,999	1,459	1,980	6,356	8,876
Northern Pintail	7,793	17,904	3,648	6,335	5,084	11,297
Wood Duck	49,499	71,426	36,843	39,001	80,716	101,136
Redhead	7,683	7,047	8,937	16,234	11,016	14,525
Canvasback	3,622	10,476	2,006	1,584	4,661	4,842
Greater Scaup	768	1,333	7,478	5,543	1,271	1,076
Lesser Scaup	22,170	49,522	5,289	7,523	6,356	8,607
Ring-necked Duck	19,646	20,761	6,566	5,741	66,945	62,941
Goldeneyes	0	381	5,654	4,157	5,508	7,800
Bufflehead	2,634	6,666	17,509	29,300	16,313	12,373
Ruddy Duck	1,098	2,286	1,277	594	847	1,345
Long-tailed Duck	110	0	6,019	16,828	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	1,094	3,366	0	269
Hooded Merganser	2,415	4,381	4,195	5,741	11,228	15,601
Other Mergansers	0	0	182	1,980	1,483	1,345
Other Ducks	7,573	8,381	0	0	0	0
Total Duck Harvest	572,400±20%	752,200±15%	235,300±14%	252,800±13%	445,100±15%	529,600±14%
Total Active Duck Hunters^a	50,000±14%	38,200±10%	33,000±16%	28,200±12%	50,900±13%	55,500±12%
Total Duck Hunter Days Afield^a	287,100±23%	286,900±13%	164,100±14%	182,000±14%	263,500±12%	331,900±15%
Seasonal Duck Harvest Per Hunter^a	11.5±24%	19.7±18%	7.1±21%	9.0±18%	8.8±20%	9.6±18%
Goose Species Composition						
Canada Goose	0	1,919	152,987	170,171	199,768	142,434
Snow Goose	8,116	4,798	0	830	0	835
Blue Goose	5,411	3,838	0	0	0	0
Ross' Goose	676	960	0	0	0	418
White-fronted Goose	37,198	18,231	0	0	428	2,088
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	51,400±44%	29,700±26%	153,000±20%	171,000±20%	200,200±29%	145,800±19%
Total Active Goose Hunters^b	12,600±21%	7,500±14%	31,000±15%	26,700±13%	40,000±12%	42,300±13%
Total Goose Hunter Days Afield^b	54,900±32%	44,800±21%	191,200±35%	172,700±15%	203,200±20%	213,100±16%
Seasonal Goose Harvest Per Hunter^b	4.1±49%	3.9±29%	4.9±25%	6.4±23%	5.0±32%	3.4±23%
Active Waterfowl Hunters^c	50,100±14%	38,800±10%	38,400±15%	35,300±11%	57,700±13%	60,100±12%
Sample Sizes						
DuckWings	5,215	3,949	1,290	1,277	2,101	1,969
GooseTails	76	31	418	412	468	349

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Mississippi		Missouri		Ohio	
	2019	2020	2019	2020	2019	2020
Mallard	63,400	46,117	161,320	146,598	47,360	31,502
Domestic Mallard	0	204	0	0	544	0
Black Duck	144	0	0	157	3,266	4,161
Mallard x Black Hybrid	0	0	0	0	272	0
Mottled Duck	144	0	0	0	0	0
Gadwall	41,930	39,179	24,526	30,325	2,994	5,349
Wigeon	2,450	1,632	4,722	4,085	1,361	991
Green-winged Teal	33,141	31,221	21,479	37,867	6,532	3,764
Blue-winged/Cinnamon Teal	8,645	11,223	12,187	21,526	4,899	9,510
Northern Shoveler	11,383	9,591	16,452	18,855	1,089	1,981
Northern Pintail	6,772	7,550	11,882	6,756	1,089	1,585
Wood Duck	21,181	36,322	7,464	4,085	29,940	16,444
Redhead	865	3,877	1,219	2,200	1,089	594
Canvasback	144	0	305	2,200	0	396
Greater Scaup	0	204	305	0	544	3,368
Lesser Scaup	288	2,857	914	2,828	817	0
Ring-necked Duck	8,213	4,489	7,312	7,228	2,450	991
Goldeneyes	0	0	762	786	544	1,189
Bufflehead	144	3,469	152	628	2,994	5,349
Ruddy Duck	0	204	152	471	0	198
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	471	0	0
Hooded Merganser	2,305	2,245	2,437	1,257	1,633	594
Other Mergansers	0	0	0	314	3,266	991
Other Ducks	0	612	0	0	0	0
Total Duck Harvest	201,100±21%	201,000±18%	273,600±18%	288,600±18%	112,700±40%	89,000±27%
Total Active Duck Hunters^a	14,200±20%	15,700±20%	26,600±15%	26,900±14%	15,100±27%	13,200±23%
Total Duck Hunter Days Afield^a	86,900±18%	115,100±30%	158,200±17%	188,200±15%	95,000±55%	96,400±30%
Seasonal Duck Harvest Per Hunter^a	14.2±29%	12.8±27%	10.3±23%	10.7±23%	7.4±49%	6.7±36%
Goose Species Composition						
Canada Goose	1,449	2,217	40,026	35,515	36,171	58,899
Snow Goose	1,449	8,424	1,712	2,709	0	0
Blue Goose	0	887	2,354	1,505	0	0
Ross' Goose	1,449	1,330	428	0	0	0
White-fronted Goose	17,392	3,103	4,709	8,126	0	307
Brant	0	0	0	0	0	0
Other Geese	0	0	0	301	0	0
Total Goose Harvest	21,700±52%	16,000±43%	49,200±29%	48,200±31%	36,200±35%	59,200±35%
Total Active Goose Hunters^b	5,900±29%	6,500±32%	11,200±21%	13,000±19%	12,200±25%	13,500±21%
Total Goose Hunter Days Afield^b	22,500±36%	39,200±48%	50,600±23%	78,700±24%	50,300±30%	94,700±25%
Seasonal Goose Harvest Per Hunter^b	3.7±60%	2.5±54%	4.4±36%	3.7±37%	3.0±43%	4.4±41%
Active Waterfowl Hunters^c	14,200±20%	16,100±20%	27,800±15%	29,600±13%	16,600±25%	18,000±20%
Sample Sizes						
DuckWings	1,396	985	1,796	1,837	414	449
GooseTails	15	36	230	160	299	193

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Tennessee		Wisconsin		Flyway Total	
	2019	2020	2019	2020	2019	2020
Mallard	85,268	59,439	99,458	137,041	1,454,937	1,211,677
Domestic Mallard	0	683	183	1,275	839	2,162
Black Duck	0	683	1,280	2,550	20,357	16,746
Mallard x Black Hybrid	0	0	0	0	982	471
Mottled Duck	0	0	0	0	9,583	11,619
Gadwall	24,825	64,904	15,175	15,776	537,060	549,477
Wigeon	3,238	2,733	8,776	6,533	69,814	72,343
Green-winged Teal	6,476	15,030	18,100	38,563	435,290	475,539
Blue-winged/Cinnamon Teal	16,730	683	33,640	62,625	383,088	547,820
Northern Shoveler	2,698	5,466	6,216	4,621	141,962	169,584
Northern Pintail	4,317	4,099	3,657	10,995	74,589	100,111
Wood Duck	19,968	30,744	79,712	105,649	488,166	610,197
Redhead	1,079	1,366	11,701	15,616	52,298	70,649
Canvasback	2,698	0	9,507	5,896	29,990	32,132
Greater Scaup	540	0	8,227	6,215	23,101	19,366
Lesser Scaup	4,317	6,832	22,122	12,429	75,001	102,147
Ring-necked Duck	7,555	4,782	14,626	14,182	174,603	161,580
Goldeneyes	1,619	0	5,485	8,605	27,855	27,892
Bufflehead	2,698	17,763	17,003	27,408	83,493	119,634
Ruddy Duck	1,079	683	2,742	2,390	15,506	9,392
Long-tailed Duck	0	0	1,645	3,824	7,886	20,652
Eiders	0	0	0	0	134	0
Scoters	0	0	914	2,390	3,125	6,746
Hooded Merganser	1,619	2,050	4,022	5,099	46,569	50,080
Other Mergansers	0	0	1,097	3,665	7,916	9,599
Other Ducks	0	0	0	2,231	7,925	11,224
Total Duck Harvest	186,700±19%	217,900±20%	365,300±24%	495,600±14%	4,172,100±9%	4,408,800±5%
Total Active Duck Hunters^a	16,900±24%	18,600±18%	43,100±17%	54,800±13%	386,100	379,300
Total Duck Hunter Days Afield^a	107,600±21%	127,800±18%	254,500±17%	374,100±16%	2,348,200±6%	2,717,500±5%
Seasonal Duck Harvest Per Hunter^a	11.0±30%	11.7±27%	8.5±30%	9.0±19%		
Goose Species Composition						
Canada Goose	20,240	12,781	130,156	164,412	810,614	861,739
Snow Goose	653	2,691	233	0	32,133	48,159
Blue Goose	0	2,018	233	0	17,047	23,565
Ross' Goose	0	0	0	0	9,783	5,477
White-fronted Goose	0	673	467	0	153,583	119,507
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	301
Total Goose Harvest	20,900±34%	18,200±30%	131,100±15%	164,400±18%	1,023,200±9%	1,058,700±9%
Total Active Goose Hunters^b	9,100±24%	9,200±24%	36,700±10%	37,900±11%	233,800	231,200
Total Goose Hunter Days Afield^b	53,500±33%	73,400±42%	225,900±15%	262,500±15%	1,291,100±8%	1,531,000±7%
Seasonal Goose Harvest Per Hunter^b	2.3±42%	2.0±39%	3.6±19%	4.3±21%		
Active Waterfowl Hunters^c	18,700±23%	19,300±18%	47,600±17%	67,100±12%	418,100	428,700
Sample Sizes						
DuckWings	346	319	1,998	3,110	24,171	22,417
GooseTails	32	27	562	610	3,667	3,296

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Colorado		Kansas		Nebraska	
	2019	2020	2019	2020	2019	2020
Mallard	42,809	30,866	67,012	89,442	54,848	54,764
Domestic Mallard	0	0	0	0	76	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	11,234	11,585	17,826	30,623	7,803	12,660
Wigeon	6,504	5,793	5,600	7,511	4,284	7,263
Green-winged Teal	6,031	12,247	18,200	29,698	22,872	26,891
Blue-winged/Cinnamon Teal	2,838	5,048	20,440	45,068	42,379	39,159
Northern Shoveler	1,064	1,738	8,213	13,867	5,202	5,594
Northern Pintail	828	1,903	3,453	8,667	2,907	3,435
Wood Duck	828	1,572	2,053	3,467	2,524	4,220
Redhead	473	910	4,200	6,933	4,131	2,846
Canvasback	473	331	560	1,271	382	589
Greater Scaup	0	83	0	116	0	0
Lesser Scaup	355	248	933	1,387	382	1,276
Ring-necked Duck	1,301	1,159	2,893	5,778	1,912	1,570
Goldeneyes	710	993	1,493	13,405	688	2,846
Bufflehead	591	331	2,800	1,733	153	589
Ruddy Duck	0	166	373	1,271	688	589
Long-tailed Duck	0	0	0	116	0	196
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	0	248	280	924	76	491
Other Mergansers	118	662	0	116	0	0
Other Ducks	118	248	0	347	0	393
Total Duck Harvest	76,300±20%	76,100±19%	156,300±41%	261,700±37%	151,300±15%	165,400±16%
Total Active Duck Hunters^a	11,200±18%	11,300±17%	13,800±23%	20,000±23%	12,100±17%	11,900±14%
Total Duck Hunter Days Afield^a	55,000±24%	62,100±27%	66,000±33%	103,000±26%	87,300±17%	84,900±14%
Seasonal Duck Harvest Per Hunter^a	6.8±27%	6.7±25%	11.3±47%	13.1±44%	12.5±23%	13.9±22%
Goose Species Composition						
Canada Goose	66,587	57,674	50,037	78,030	104,059	74,816
Snow Goose	2,239	3,473	11,081	13,047	668	962
Blue Goose	149	248	1,558	2,760	334	241
Ross' Goose	149	620	2,943	3,763	0	0
White-fronted Goose	0	124	5,194	8,781	668	962
Brant	0	0	0	0	0	0
Other Geese	0	124	0	0	0	241
Total Goose Harvest	69,100±19%	62,300±20%	70,800±45%	106,400±32%	105,700±18%	77,200±21%
Total Active Goose Hunters^b	13,300±17%	10,500±17%	9,600±29%	15,000±26%	11,800±12%	12,800±12%
Total Goose Hunter Days Afield^b	71,500±25%	63,700±19%	39,700±42%	75,100±32%	90,000±16%	88,200±15%
Seasonal Goose Harvest Per Hunter^b	5.2±26%	5.9±26%	7.3±54%	7.1±42%	9.0±22%	6.0±25%
Active Waterfowl Hunters^c	19,000±15%	16,400±14%	16,600±21%	24,200±21%	17,200±14%	17,000±12%
Sample Sizes						
DuckWings	645	920	1,675	2,265	1,978	1,685
GooseTails	463	502	409	424	633	321

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	New Mexico		North Dakota		Oklahoma	
	2019	2020	2019	2020	2019	2020
Mallard	17,817	8,611	104,946	136,507	113,463	121,739
Domestic Mallard	0	0	0	105	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	4,809	4,472	70,395	76,674	54,908	94,930
Wigeon	6,687	4,421	19,559	18,829	19,198	27,249
Green-winged Teal	5,817	3,066	23,350	38,599	32,445	40,214
Blue-winged/Cinnamon Teal	1,466	1,814	45,925	45,921	6,335	17,360
Northern Shoveler	1,511	1,584	29,381	30,230	9,791	15,822
Northern Pintail	1,511	1,048	14,561	21,234	5,952	15,382
Wood Duck	641	511	3,619	4,080	6,911	9,010
Redhead	595	358	29,468	28,557	3,648	4,175
Canvasback	229	128	10,339	9,519	1,152	3,955
Greater Scaup	0	0	86	314	0	220
Lesser Scaup	275	128	29,209	10,147	1,536	1,318
Ring-necked Duck	687	869	10,426	7,636	19,390	29,446
Goldeneyes	92	281	1,034	837	192	439
Bufflehead	1,695	332	8,702	10,042	576	879
Ruddy Duck	229	0	4,653	5,753	0	0
Long-tailed Duck	0	0	0	105	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	0	77	1,206	1,255	192	1,318
Other Mergansers	0	102	0	0	0	0
Other Ducks	595	562	86	209	0	220
Total Duck Harvest	44,700±120%	28,400±47%	406,900±15%	446,600±11%	275,700±14%	383,700±16%
Total Active Duck Hunters^a	3,700±72%	3,300±69%	30,500±10%	31,200±9%	20,900±11%	23,400±11%
Total Duck Hunter Days Afield^a	16,800±87%	15,300±44%	135,100±12%	153,800±10%	106,200±12%	152,400±19%
Seasonal Duck Harvest Per Hunter^a	12.1±140%	8.5±83%	13.3±18%	14.3±14%	13.2±18%	16.4±20%
Goose Species Composition						
Canada Goose	5,058	4,107	123,793	107,096	58,493	83,615
Snow Goose	120	316	15,384	18,550	2,949	2,565
Blue Goose	0	0	11,221	9,770	492	0
Ross' Goose	0	105	4,887	2,968	1,966	1,026
White-fronted Goose	0	0	4,344	3,957	983	4,617
Brant	0	0	0	0	0	0
Other Geese	0	0	0	124	0	513
Total Goose Harvest	5,200±60%	4,500±63%	159,600±21%	142,500±14%	64,900±23%	92,300±27%
Total Active Goose Hunters^b	3,200±55%	2,300±73%	22,100±8%	24,700±8%	12,100±15%	13,600±16%
Total Goose Hunter Days Afield^b	13,700±84%	9,400±76%	88,400±11%	113,200±11%	43,900±25%	74,700±28%
Seasonal Goose Harvest Per Hunter^b	1.6±82%	1.9±96%	7.2±22%	5.8±16%	5.4±28%	6.8±31%
Active Waterfowl Hunters^c	3,800±71%	4,800±61%	34,400±9%	35,100±8%	21,400±11%	24,300±11%
Sample Sizes						
DuckWings	975	1,110	4,723	4,269	1,436	1,746
GooseTails	43	86	882	1,152	132	180

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	South Dakota		Texas		Wyoming	
	2019	2020	2019	2020	2019	2020
Mallard	60,185	53,194	47,491	51,733	12,471	18,688
Domestic Mallard	0	0	0	0	0	0
Black Duck	85	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	4,215	8,270	0	0
Gadwall	22,303	32,843	144,861	236,739	3,395	3,403
Wigeon	8,513	8,643	44,962	71,733	2,570	2,565
Green-winged Teal	13,620	24,200	125,190	188,084	1,460	2,251
Blue-winged/Cinnamon Teal	20,771	22,865	153,713	280,587	1,618	1,047
Northern Shoveler	15,919	9,193	56,905	77,695	444	733
Northern Pintail	8,513	6,522	34,424	44,809	286	262
Wood Duck	4,597	6,522	46,929	40,963	349	681
Redhead	12,343	6,443	44,119	69,233	254	419
Canvasback	2,894	943	3,934	7,308	127	105
Greater Scaup	170	79	3,794	1,923	32	0
Lesser Scaup	5,533	3,457	26,977	25,386	127	209
Ring-necked Duck	4,597	4,007	36,531	69,233	159	262
Goldeneyes	426	864	1,124	1,154	1,142	2,931
Bufflehead	4,341	3,457	7,868	7,116	190	157
Ruddy Duck	2,639	1,257	1,827	1,923	159	0
Long-tailed Duck	0	0	0	192	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	385	0	0
Hooded Merganser	426	550	141	3,654	0	0
Other Mergansers	0	79	984	2,885	0	52
Other Ducks	255	157	1,827	2,885	0	105
Total Duck Harvest	188,100±44%	185,300±31%	787,800±13%	1,193,900±26%	24,800±19%	33,900±24%
Total Active Duck Hunters^a	14,000±23%	11,300±21%	69,000±24%	80,300±20%	2,700±19%	3,700±18%
Total Duck Hunter Days Afield^a	74,900±41%	59,600±26%	332,600±21%	408,600±20%	11,100±17%	17,800±20%
Seasonal Duck Harvest Per Hunter^a	13.5±50%	16.4±38%	11.4±28%	14.9±33%	9.1±27%	9.3±30%
Goose Species Composition						
Canada Goose	54,214	96,691	57,618	47,300	22,453	18,011
Snow Goose	9,670	24,740	43,213	58,787	295	0
Blue Goose	5,707	10,214	22,407	11,487	0	0
Ross' Goose	2,853	2,724	12,004	18,244	148	62
White-fronted Goose	2,378	2,951	38,412	21,623	0	62
Brant	0	0	0	0	0	0
Other Geese	793	0	0	0	0	0
Total Goose Harvest	75,600±36%	137,300±44%	173,700±29%	157,400±34%	22,900±29%	18,100±29%
Total Active Goose Hunters^b	11,400±17%	12,000±17%	39,200±19%	35,800±21%	3,300±14%	3,700±15%
Total Goose Hunter Days Afield^b	46,600±21%	65,100±24%	111,800±27%	104,200±28%	15,600±21%	19,500±23%
Seasonal Goose Harvest Per Hunter^b	6.7±40%	11.5±47%	4.4±35%	4.4±40%	7.0±32%	5.0±33%
Active Waterfowl Hunters^c	15,600±22%	15,300±18%	79,100±24%	84,300±20%	5,600±10%	5,400±13%
Sample Sizes						
DuckWings	2,210	2,358	5,607	6,208	781	647
GooseTails	477	605	217	233	155	294

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Flyway Total	
	2019	2020
Mallard	521,041	565,544
Domestic Mallard	76	105
Black Duck	85	0
Mallard x Black Hybrid	0	0
Mottled Duck	4,215	8,270
Gadwall	337,535	503,930
Wigeon	117,877	154,005
Green-winged Teal	248,986	365,250
Blue-winged/Cinnamon Teal	295,485	458,868
Northern Shoveler	128,431	156,456
Northern Pintail	72,434	103,262
Wood Duck	68,452	71,024
Redhead	99,230	119,874
Canvasback	20,091	24,149
Greater Scaup	4,082	2,734
Lesser Scaup	65,328	43,556
Ring-necked Duck	77,897	119,960
Goldeneyes	6,901	23,751
Bufflehead	26,917	24,636
Ruddy Duck	10,568	10,959
Long-tailed Duck	0	609
Eiders	0	0
Scoters	0	385
Hooded Merganser	2,321	8,518
Other Mergansers	1,102	3,895
Other Ducks	2,882	5,125
Total Duck Harvest	2,111,900±8%	2,774,900±12%
Total Active Duck Hunters^a	177,800	196,500
Total Duck Hunter Days Afield^a	885,100±10%	1,057,700±9%
Seasonal Duck Harvest Per Hunter^a		
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Goose Species Composition		
Canada Goose	542,312	567,339
Snow Goose	85,620	122,440
Blue Goose	41,868	34,719
Ross' Goose	24,950	29,513
White-fronted Goose	51,979	43,077
Brant	0	0
Other Geese	793	1,001
Total Goose Harvest	747,500±11%	798,100±12%
Total Active Goose Hunters^b	126,000	130,400
Total Goose Hunter Days Afield^b	521,100±9%	613,100±8%
Seasonal Goose Harvest Per Hunter^b		
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Active Waterfowl Hunters^c	212,800	226,900
<hr/>		
Sample Sizes		
DuckWings	20,030	21,208
GooseTails	3,411	3,797

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Arizona		California		Idaho	
	2019	2020	2019	2020	2019	2020
Mallard	3,883	1,958	147,680	136,289	100,751	112,842
Domestic Mallard	0	0	333	478	307	275
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	1,941	1,175	53,468	60,446	8,908	13,195
Wigeon	1,737	1,200	142,026	197,118	18,123	22,129
Green-winged Teal	4,530	2,892	288,875	294,864	10,444	13,195
Blue-winged/Cinnamon Teal	715	594	25,445	33,953	307	962
Northern Shoveler	920	1,313	122,651	160,965	922	2,886
Northern Pintail	409	379	99,535	102,432	2,150	2,474
Wood Duck	34	13	13,554	12,625	2,611	1,924
Redhead	511	164	6,735	8,799	1,382	2,337
Canvasback	0	240	12,390	21,519	0	1,512
Greater Scaup	0	38	582	2,391	0	550
Lesser Scaup	170	114	6,569	10,999	307	1,512
Ring-necked Duck	954	758	20,539	22,285	4,300	2,474
Goldeneyes	68	126	5,987	4,400	11,980	15,394
Bufflehead	375	303	11,059	15,877	922	3,436
Ruddy Duck	238	290	3,492	2,774	768	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	413	761	0	137
Hooded Merganser	0	51	748	1,148	614	137
Other Mergansers	34	88	83	191	461	137
Other Ducks	341	240	0	96	0	0
Total Duck Harvest	16,900±55%	11,900±35%	962,200±12%	1,090,400±12%	165,300±34%	197,500±41%
Total Active Duck Hunters^a	1,900±20%	1,500±22%	45,500±13%	48,900±10%	18,800±26%	12,600±18%
Total Duck Hunter Days Afield^a	8,600±32%	7,200±27%	342,100±12%	419,100±10%	94,900±33%	81,300±28%
Seasonal Duck Harvest Per Hunter^a	9.0±58%	8.0±41%	21.1±18%	22.3±16%	8.8±42%	15.7±44%
Goose Species Composition						
Canada Goose	2,365	784	59,936	54,616	69,814	49,692
Snow Goose	163	287	61,034	114,150	0	1,707
Blue Goose	0	0	686	1,187	0	0
Ross' Goose	489	131	12,207	17,979	0	379
White-fronted Goose	82	52	46,221	101,598	436	379
Brant	0	0	1,170	948	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	3,100±124%	1,300±48%	181,300±15%	290,500±13%	70,300±48%	52,200±47%
Total Active Goose Hunters^b	700±34%	800±35%	32,400±10%	37,600±9%	11,700±34%	9,700±22%
Total Goose Hunter Days Afield^b	4,300±46%	4,400±44%	200,100±13%	294,100±12%	74,200±42%	55,500±34%
Seasonal Goose Harvest Per Hunter^b	4.5±129%	1.5±59%	5.6±18%	7.7±16%	6.0±59%	5.4±52%
Active Waterfowl Hunters^c	1,900±19%	1,500±22%	49,000±13%	52,300±10%	23,500±22%	15,200±16%
Sample Sizes						
DuckWings	495	945	11,596	11,411	1,076	1,437
GooseTails	38	48	1,325	1,732	161	275

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Montana		Nevada		Oregon	
	2019	2020	2019	2020	2019	2020
Mallard	63,247	127,437	13,252	5,471	97,820	119,984
Domestic Mallard	0	265	0	0	113	146
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	8,596	18,830	6,092	2,583	11,782	9,390
Wigeon	8,415	18,830	3,099	2,165	62,363	55,418
Green-winged Teal	5,248	16,709	8,550	10,068	42,311	46,222
Blue-winged/Cinnamon Teal	3,800	3,448	1,336	304	736	195
Northern Shoveler	3,257	5,172	2,886	2,393	14,557	12,699
Northern Pintail	633	3,050	2,191	2,203	22,997	27,052
Wood Duck	1,719	1,724	374	76	5,154	7,006
Redhead	995	4,376	1,710	988	793	195
Canvasback	90	928	1,122	1,102	1,643	2,044
Greater Scaup	0	265	0	38	5,721	6,714
Lesser Scaup	1,176	2,520	107	190	7,363	3,163
Ring-necked Duck	1,176	2,254	641	456	5,608	6,277
Goldeneyes	4,796	10,476	160	114	2,492	2,044
Bufflehead	452	1,061	374	114	3,455	5,693
Ruddy Duck	271	265	214	342	283	341
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	133	0	0	181	365
Hooded Merganser	543	530	107	0	1,303	924
Other Mergansers	181	398	53	114	510	633
Other Ducks	0	0	0	38	0	292
Total Duck Harvest	104,600±25%	218,700±21%	42,300±32%	28,800±23%	287,200±17%	306,800±14%
Total Active Duck Hunters^a	12,900±16%	17,700±10%	3,900±28%	3,500±24%	18,300±10%	19,200±9%
Total Duck Hunter Days Afield^a	48,400±18%	111,000±18%	20,300±33%	17,700±24%	125,400±20%	136,400±12%
Seasonal Duck Harvest Per Hunter^a	8.1±29%	12.3±23%	10.8±43%	8.3±33%	15.7±20%	16.0±17%
Goose Species Composition						
Canada Goose	63,734	82,168	6,625	2,339	41,229	49,179
Snow Goose	440	626	138	192	5,746	7,366
Blue Goose	0	209	0	0	0	72
Ross' Goose	0	313	0	38	711	1,155
White-fronted Goose	220	0	0	38	7,819	5,199
Brant	0	0	0	0	196	98
Other Geese	0	209	0	0	0	0
Total Goose Harvest	64,400±21%	83,500±20%	6,800±74%	2,600±39%	55,700±26%	63,100±22%
Total Active Goose Hunters^b	10,600±13%	12,400±14%	2,400±40%	1,600±35%	8,900±11%	11,200±10%
Total Goose Hunter Days Afield^b	42,500±16%	71,200±25%	12,000±44%	7,600±45%	46,400±17%	65,300±12%
Seasonal Goose Harvest Per Hunter^b	6.1±25%	6.7±24%	2.8±84%	1.7±53%	6.3±29%	5.6±24%
Active Waterfowl Hunters^c	16,700±12%	21,300±8%	4,600±28%	3,500±24%	19,800±10%	21,400±9%
Sample Sizes						
DuckWings	1,156	1,649	791	757	5,077	6,307
GooseTails	586	801	49	68	938	873

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2019 and 2020 hunting seasons.

Duck Species Composition	Utah		Washington		Flyway Total	
	2019	2020	2019	2020	2019	2020
Mallard	60,212	68,427	190,913	215,115	677,758	787,522
Domestic Mallard	436	148	0	196	1,189	1,508
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	28,544	34,250	11,032	14,097	130,362	153,967
Wigeon	21,499	28,702	65,980	75,382	323,241	400,944
Green-winged Teal	23,823	41,944	37,452	46,208	421,232	472,101
Blue-winged/Cinnamon Teal	8,425	5,400	281	131	41,046	44,986
Northern Shoveler	15,543	23,450	7,940	15,337	168,675	224,216
Northern Pintail	10,169	20,787	20,447	22,582	158,530	180,960
Wood Duck	145	296	2,319	2,415	25,911	26,079
Redhead	3,051	5,104	2,951	3,002	18,129	24,965
Canvasback	2,833	3,255	3,162	3,002	21,240	33,602
Greater Scaup	73	740	3,865	3,590	10,240	14,326
Lesser Scaup	3,777	3,625	4,638	7,832	24,108	29,953
Ring-necked Duck	1,453	5,548	12,999	12,270	47,670	52,321
Goldeneyes	4,648	4,291	1,171	1,277	31,302	38,121
Bufflehead	2,469	1,553	5,692	13,640	24,798	41,677
Ruddy Duck	2,978	1,923	0	587	8,245	6,523
Long-tailed Duck	0	0	25	39	25	39
Eiders	0	0	0	0	0	0
Scoters	73	0	738	967	1,405	2,363
Hooded Merganser	218	74	1,686	783	5,220	3,648
Other Mergansers	581	1,036	773	587	2,676	3,184
Other Ducks	0	74	96	280	436	1,020
Total Duck Harvest	190,900±16%	250,600±13%	374,200±13%	439,300±11%	2,143,400±7%	2,544,000±7%
Total Active Duck Hunters^a	15,600±16%	17,400±13%	24,400±6%	28,200±5%	141,300	149,000
Total Duck Hunter Days Afield^a	110,000±27%	114,200±21%	168,400±12%	203,500±10%	918,000±7%	1,090,400±6%
Seasonal Duck Harvest Per Hunter^a	12.2±23%	14.4±19%	15.2±14%	15.5±12%		
Goose Species Composition						
Canada Goose	15,403	24,472	43,282	45,801	302,390	309,050
Snow Goose	2,827	2,818	22,605	20,870	92,952	148,016
Blue Goose	0	0	701	0	1,387	1,468
Ross' Goose	975	593	1,840	5,360	16,222	25,949
White-fronted Goose	0	0	263	325	55,041	107,593
Brant	0	0	457	1,256	1,823	2,302
Other Geese	0	0	0	0	0	209
Total Goose Harvest	19,200±24%	27,900±24%	69,100±16%	73,600±21%	469,800±11%	594,600±9%
Total Active Goose Hunters^b	8,900±15%	8,400±14%	12,400±8%	15,100±7%	88,000	96,800
Total Goose Hunter Days Afield^b	42,800±21%	64,800±27%	67,100±14%	89,400±14%	489,300±9%	652,400±8%
Seasonal Goose Harvest Per Hunter^b	2.2±28%	3.3±28%	5.5±18%	4.8±22%		
Active Waterfowl Hunters^c	18,000±14%	18,300±13%	26,500±5%	31,400±5%	160,100	164,900
Sample Sizes						
DuckWings	2,629	3,388	5,374	6,815	28,194	32,709
GooseTails	197	188	788	909	4,082	4,894

Table 1E. Preliminary estimates of waterfowl harvest and hunter activity in Alaska and the United States during the 2019 and 2020 hunting seasons.

Duck Species Composition	Alaska		United States Total	
	2019	2020	2019	2020
Mallard	20,079	15,678	2,896,071	2,801,212
Domestic Mallard	0	0	5,427	6,891
Black Duck	0	0	79,759	81,020
Mallard x Black Hybrid	0	0	3,092	3,160
Mottled Duck	0	0	22,537	29,482
Gadwall	1,016	352	1,048,098	1,250,504
Wigeon	5,703	5,755	536,291	655,168
Green-winged Teal	5,703	5,402	1,170,105	1,419,863
Blue-winged/Cinnamon Teal	0	59	802,057	1,108,012
Northern Shoveler	1,484	998	450,656	568,611
Northern Pintail	3,203	4,815	317,720	408,134
Wood Duck	0	0	946,838	1,116,545
Redhead	0	59	188,793	234,304
Canvasback	0	59	72,900	97,316
Greater Scaup	859	646	52,374	51,119
Lesser Scaup	391	352	180,474	207,125
Ring-necked Duck	78	1,468	374,088	435,025
Goldeneyes	4,453	2,701	80,902	99,605
Bufflehead	1,641	1,820	210,846	272,377
Ruddy Duck	0	0	38,559	35,768
Long-tailed Duck	934	567	36,284	38,948
Eiders	0	472	8,131	15,387
Scoters	4,004	5,858	65,850	58,402
Hooded Merganser	78	0	85,709	86,481
Other Mergansers	934	2,362	26,236	35,733
Other Ducks	1,135	472	20,968	22,871
Total Duck Harvest	51,700±27%	49,900±19%	9,720,800±5%	11,139,100±4%
Total Active Duck Hunters^a	4,000±14%	4,600±12%	873,100	908,700
Total Duck Hunter Days Afield^a	22,000±25%	20,400±19%	5,015,200±4%	5,841,200±3%
Seasonal Duck Harvest Per Hunter^a	11.2±31%	8.7±22%		
Goose Species Composition				
Canada Goose	6,588	6,466	2,070,496	2,135,655
Snow Goose	0	0	225,513	329,666
Blue Goose	0	0	62,586	60,665
Ross' Goose	0	154	50,955	61,496
White-fronted Goose	0	1,078	260,754	271,740
Brant	2,757	1,895	20,709	18,920
Other Geese	0	154	891	1,665
Total Goose Harvest	9,300±48%	9,700±55%	2,691,900±5%	2,879,800±5%
Total Active Goose Hunters^b	1,600±24%	1,900±20%	555,800	580,800
Total Goose Hunter Days Afield^b	13,800±55%	8,000±32%	2,795,400±5%	3,412,800±4%
Seasonal Goose Harvest Per Hunter^b	4.1±54%	4.1±59%		
Active Waterfowl Hunters^c	4,900±12%	5,300±10%	989,500	1,042,300
Sample Sizes				
DuckWings	677	787	85,740	90,693
GooseTails	41	72	15,862	16,136

^a Duck hunter statistics do not include sea duck hunter statistics for states with special sea duck seasons or sea duck permits: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, 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.

Table 2. Flyway-specific point estimates of duck and goose harvest in Colorado, Montana, New Mexico, and Wyoming during the 2019 and 2020 hunting seasons.

	2019		2020	
	Central Flyway	Pacific Flyway	Central Flyway	Pacific Flyway
Duck Harvest				
Colorado	67,600	8,600	65,400	10,800
Montana	32,800	71,800	42,700	176,000
New Mexico	39,300	5,400	21,900	6,400
Wyoming	17,300	7,500	21,500	12,400
Goose Harvest				
Colorado	64,500	4,600	58,700	3,600
Montana	46,700	17,700	49,300	34,200
New Mexico	1,600	3,600	3,900	600
Wyoming	19,400	3,500	15,900	2,200

Table 3. Preliminary estimates of sea duck harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2019 and 2020 hunting seasons.^a

	<u>Sea Duck Harvest^b</u>		<u>Active Sea Duck Hunters^c</u>		<u>Sea Duck Hunter Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2019	2020	2019	2020	2019	2020	2019	2020
Connecticut	3,200 ± 70%	300 ± 95%	600 ± 47%	200 ± 77%	1,700 ± 55%	700 ± 95%	5.0 ± 84%	1.3 ± 122%
Delaware	2,400 ± 91%	1,600 ± 57%	400 ± 46%	500 ± 51%	1,100 ± 67%	1,100 ± 54%	6.8 ± 102%	3.1 ± 76%
Maine	4,100 ± 64%	6,800 ± 49%	900 ± 47%	1,300 ± 35%	1,800 ± 47%	3,700 ± 42%	4.6 ± 80%	5.1 ± 60%
Maryland	29,400 ± 20%	18,400 ± 21%	6,400 ± 15%	3,800 ± 16%	13,700 ± 19%	8,700 ± 22%	4.6 ± 25%	4.9 ± 27%
Massachusetts	11,400 ± 53%	9,200 ± 58%	1,700 ± 48%	1,600 ± 45%	4,800 ± 48%	6,400 ± 86%	6.7 ± 72%	5.8 ± 73%
New Hampshire	300 ± 87%	500 ± 88%	<50 ± 73%	200 ± 72%	100 ± 82%	300 ± 65%	9.2 ± 114%	2.8 ± 114%
New Jersey	9,500 ± 32%	6,700 ± 35%	1,700 ± 24%	1,400 ± 24%	5,300 ± 35%	4,200 ± 30%	5.5 ± 40%	4.7 ± 42%
New York	10,600 ± 52%	11,200 ± 99%	1,500 ± 34%	1,000 ± 51%	5,100 ± 42%	5,500 ± 57%	6.9 ± 62%	10.8 ± 112%
Rhode Island	2,100 ± 27%	2,600 ± 35%	400 ± 24%	600 ± 25%	1,100 ± 25%	2,000 ± 32%	4.7 ± 36%	4.5 ± 43%
Virginia	12,400 ± 57%	5,500 ± 58%	2,500 ± 42%	1,800 ± 46%	6,000 ± 45%	3,300 ± 46%	4.9 ± 71%	3.1 ± 74%
Atlantic Flyway Total	85,300 ± 16%	62,800 ± 22%	16,200	12,400	40,900 ± 13%	36,000 ± 20%		
California	400 ± 45%	800 ± 44%	100 ± 34%	200 ± 25%	200 ± 48%	800 ± 49%	4.3 ± 57%	5.0 ± 51%
Oregon	200 ± 57%	400 ± 53%	100 ± 39%	100 ± 32%	300 ± 81%	400 ± 46%	2.4 ± 69%	3.4 ± 62%
Washington	2,000 ± 26%	2,300 ± 29%	600 ± 16%	700 ± 16%	2,000 ± 26%	3,100 ± 32%	3.1 ± 30%	3.3 ± 33%
Pacific Flyway Total	2,600 ± 21%	3,400 ± 22%	800	1,000	2,500 ± 23%	4,200 ± 25%		
Alaska	7,000 ± 35%	9,700 ± 30%	1,500 ± 29%	1,800 ± 23%	5,400 ± 43%	5,500 ± 25%	4.8 ± 46%	5.5 ± 38%
United States Total	94,900 ± 14%	76,000 ± 19%	18,500	15,200	48,800 ± 12%	45,700 ± 16%		

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

^b 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.

^c 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 4. Preliminary estimates of brant harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2019 and 2020 hunting seasons.^a

	Brant Harvest		Active Brant Hunters ^b		Brant Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Connecticut	800 ± 81%	600 ± 75%	200 ± 79%	300 ± 59%	600 ± 78%	2,200 ± 64%	3.9 ± 113%	2.3 ± 96%
Delaware	400 ± 64%	300 ± 99%	200 ± 49%	100 ± 61%	500 ± 48%	300 ± 72%	2.1 ± 80%	2.4 ± 116%
Maine	0	0	0	0	0	0	0	0
Maryland	100 ± 137%	300 ± 95%	200 ± 91%	200 ± 70%	200 ± 91%	1,000 ± 97%	0.6 ± 164%	1.3 ± 118%
Massachusetts	500 ± 95%	1,200 ± 78%	400 ± 92%	800 ± 58%	1,100 ± 90%	3,500 ± 117%	1.4 ± 132%	1.5 ± 98%
New Hampshire	0	0	0	<50 ± 193%	0	100 ± 193%	0	0
New Jersey	3,700 ± 26%	4,600 ± 28%	1,600 ± 22%	1,800 ± 20%	4,700 ± 27%	5,900 ± 23%	2.3 ± 34%	2.6 ± 34%
New York	5,200 ± 54%	4,200 ± 57%	1,300 ± 35%	1,000 ± 41%	5,900 ± 46%	4,500 ± 42%	4.1 ± 65%	4.3 ± 70%
North Carolina	2,700 ± 90%	1,000 ± 89%	1,700 ± 60%	1,100 ± 77%	3,700 ± 74%	2,900 ± 92%	1.6 ± 108%	0.9 ± 118%
Rhode Island	400 ± 53%	800 ± 47%	300 ± 38%	300 ± 35%	800 ± 44%	1,200 ± 31%	1.5 ± 65%	2.4 ± 59%
Virginia	2,200 ± 70%	1,400 ± 54%	900 ± 57%	700 ± 47%	1,700 ± 57%	1,900 ± 50%	2.3 ± 90%	2.1 ± 72%
Atlantic Flyway Total	16,000 ± 26%	14,400 ± 22%	6,800	6,400	19,200 ± 23%	23,400 ± 25%		
California	1,200 ± 91%	900 ± 51%	500 ± 75%	700 ± 60%	1,600 ± 75%	2,700 ± 71%	2.6 ± 118%	1.4 ± 78%
Oregon	0	100 ± 168%	<50 ± 196%	100 ± 126%	<50 ± 196%	300 ± 140%	0	1.1 ± 210%
Washington	200 ± 67%	600 ± 52%	200 ± 54%	400 ± 46%	500 ± 104%	700 ± 41%	1.0 ± 86%	1.4 ± 69%
Pacific Flyway Total	1,400 ± 79%	1,700 ± 36%	600	1,200	2,100 ± 62%	3,600 ± 54%		
Alaska	2,800 ± 39%	1,900 ± 43%	300 ± 30%	600 ± 36%	1,700 ± 43%	2,300 ± 43%	8.1 ± 49%	3.2 ± 56%
United States Total	20,100 ± 22%	18,000 ± 19%	7,700	8,200	23,000 ± 20%	29,400 ± 21%		

^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 5. Preliminary harvest estimates for special September teal and teal/wood duck seasons during the 2019 and 2020 hunting seasons.

State	Harvest										Number of	
	Green-winged teal		Blue-winged teal		Wood ducks		Other ducks		Total duck harvest		wings received	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
September Teal Seasons												
Delaware	272	376	0	282	0	0	0	0	272	658	3	7
Georgia	0	0	10,494	2,258	0	0	0	0	10,494	2,258	52	12
Maryland	113	0	451	810	0	0	0	0	563	810	5	5
North Carolina	0	0	1,378	464	0	0	0	0	1,378	464	8	2
South Carolina	142	0	3,410	4,184	0	0	0	0	3,552	4,184	25	37
Virginia	0	0	0	0	0	0	0	0	0	0	0	0
Atlantic Flyway Total	527	376	15,732	7,997	0	0	0	0	16,258	8,373	93	63
Alabama	0	0	4,898	7,691	0	0	0	0	4,898	7,691	26	20
Arkansas	1,312	2,224	10,932	17,793	0	0	0	0	12,244	20,018	56	90
Illinois	656	1,571	29,830	24,426	164	0	0	0	30,649	25,997	187	182
Indiana	134	140	8,011	6,433	0	140	0	0	8,145	6,713	61	48
Iowa	1,007	1,496	12,534	28,800	0	0	0	0	13,541	30,296	121	243
Louisiana	439	1,143	61,682	139,804	0	0	110	0	62,230	140,947	567	740
Michigan	912	1,188	912	3,366	0	0	0	0	1,824	4,553	10	23
Mississippi	0	0	7,060	10,203	0	0	0	0	7,060	10,203	49	50
Missouri	0	1,257	11,120	21,055	0	0	0	0	11,120	22,312	73	142
Ohio	1,633	1,189	4,627	8,916	0	0	0	0	6,260	10,104	23	51
Wisconsin	2,377	3,984	14,809	37,129	0	0	0	0	17,186	41,112	94	258
Mississippi Flyway Total	8,469	14,192	166,415	305,615	164	140	110	0	175,158	319,947	1,267	1,847
Colorado	0	331	473	2,979	0	83	0	0	473	3,393	4	41
Kansas	2,240	5,547	18,666	36,054	0	0	0	116	20,906	41,717	224	361
Nebraska	2,754	3,631	32,511	34,448	0	0	0	0	35,265	38,079	461	388
New Mexico	366	434	824	1,150	0	0	0	26	1,191	1,610	26	63
Oklahoma	0	439	6,335	16,041	0	0	0	0	6,335	16,481	33	75
Texas	1,686	10,577	104,396	228,277	0	0	0	192	106,082	239,047	755	1,243
Central Flyway Total	7,046	20,960	163,206	318,950	0	83	0	333	170,252	340,326	1,503	2,171
SeasonType Total	16,042	35,528	345,353	632,562	164	223	110	333	361,668	668,646	2,863	4,081
September Teal/Wood Duck Seasons												
Florida	0	0	9,570	10,761	754	2,555	0	0	10,323	13,316	137	172
Kentucky	0	265	816	2,389	4,078	6,503	0	0	4,893	9,157	30	69
Tennessee	0	683	16,190	683	4,317	8,882	0	0	20,508	10,248	38	15
SeasonType Total	0	949	26,575	13,833	9,149	17,939	0	0	35,724	32,721	205	256
U.S. Total	16,042	36,477	371,928	646,395	9,313	18,162	110	333	397,392	701,367	3,068	4,337

Table 6. Preliminary estimates of the number of Canada geese harvested during the special September, regular, and special late seasons during the 2019 and 2020 hunting seasons.

State / Flyway	September		Regular		Late		Total	
	2019	2020	2019	2020	2019	2020	2019	2020
Connecticut	1,500	4,300	7,700	6,800	0	0	9,200	11,200
Delaware	1,100	3,800	6,800	7,700	0	0	7,900	11,600
Georgia	5,200	15,800	16,100	9,700	0	0	21,300	25,500
Maine	4,100	6,900	3,100	7,500	0	0	7,200	14,300
Maryland	6,100	4,900	39,300	49,600	0	0	45,500	54,600
Massachusetts	3,200	2,800	5,500	9,500	0	0	8,700	12,300
New Hampshire	600	1,400	3,800	2,300	0	0	4,400	3,600
New Jersey	3,100	2,000	10,600	18,000	0	0	13,600	20,000
New York	51,900	42,900	37,000	30,100	0	0	88,900	73,000
North Carolina	12,700	10,500	34,800	19,800	0	0	47,500	30,300
Pennsylvania	24,400	18,200	71,600	52,200	0	0	96,000	70,400
Rhode Island	100	300	2,000	1,700	0	200	2,100	2,100
South Carolina	3,700	5,200	9,000	7,700	0	1,200	12,700	14,100
Vermont	2,800	4,600	2,700	7,200	0	0	5,600	11,800
Virginia	6,300	13,000	24,500	17,300	0	0	30,800	30,300
West Virginia	800	1,400	2,500	3,000	0	0	3,300	4,400
Atlantic Flyway Total ^a	127,700	138,100	280,900	251,600	0	1,400	408,600	391,100
North Dakota	18,600	35,400	105,200	71,700	0	0	123,800	107,100
Oklahoma	0	1,500	58,500	82,100	0	0	58,500	83,600
South Dakota	13,000	37,700	41,200	59,000	0	0	54,200	96,700
Texas	4,000	700	53,600	46,600	0	0	57,600	47,300
Central Flyway Total ^a	35,600	75,300	541,300	534,900	0	0	576,900	610,100
Colorado	400	100	4,200	3,500	0	0	4,600	3,600
Idaho	0	3,800	69,800	45,900	0	0	69,800	49,700
Oregon	2,400	1,900	38,900	47,200	0	0	41,200	49,200
Washington	1,600	4,700	41,700	41,100	0	0	43,300	45,800
Wyoming	700	400	2,800	1,700	0	0	3,500	2,200
Pacific Flyway Total ^a	5,100	11,000	262,700	255,300	0	0	267,800	266,300
United States Total	177,900	312,200	1,892,600	1,822,000	0	1,400	2,070,500	2,135,700

^a Flyway and U.S. totals include all states' harvest.

Table 7. Waterfowl harvest estimates in Canada during the 2019 and 2020 hunting seasons (estimates courtesy of the Canadian Wildlife Service).^a

Duck Species Composition	Newfoundland		Prince Edward Isl.		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba		
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	
Mallard	309		975		3,462		6,218		42,114		74,203		21,720		
Black Duck	4,779		2,289		12,308		5,638		15,870		8,352		117		
Gadwall	20		37		45		173		1,074		3,432		4,044		
Wigeon	108		52		212		787		1,074		4,758		2,071		
Green-winged Teal	1,864		401		2,406		2,946		10,711		8,514		3,768		
Blue-winged/Cinnamon Teal	68		173		179		578		1,045		1,849		6,759		
Northern Shoveler	17		9		27		104		489		557		2,200		
Northern Pintail	223		98		168		303		2,263		2,663		3,859		
Wood Duck	51		37		373		3,553		17,000		46,754		924		
Redhead	17		0		22		9		139		9,787		2,982		
Canvasback	0		0		16		0		41		2,120		2,941		
Greater Scaup	292		19		255		178		1,098		5,822		357		
Lesser Scaup	199		38		153		168		855		6,760		11,801		
Ring-necked Duck	2,783		192		346		1,450		3,803		10,014		2,399		
Goldeneyes	1,151		61		1,020		1,164		1,313		5,126		1,055		
Bufflehead	62		11		317		538		418		9,474		5,099		
Ruddy Duck	0		7		23		29		27		861		136		
Long-tailed Duck	951		14		258		75		357		1,016		36		
Eiders	4,324		10		1,060		438		2,361		44		63		
Scoters	943		28		2,281		275		1,378		794		234		
Hooded Merganser	223		16		470		188		2,064		3,145		260		
Other Mergansers	3,534		66		810		164		1,416		1,743		78		
Other Ducks	19		0		16		0		20		30		0		
Total Duck Harvest	21,937		4,533		26,227		24,976		106,930		207,818		72,903		
.....															
<u>Goose Species Composition</u>															
Canada Goose	3,550		11,894		10,125		14,424		141,444		181,628		54,317		
Snow Goose	25		0		58		187		84,001		913		7,452		
Blue Goose	0		0		0		0		0		0		0		
Ross's Goose	0		23		0		0		16		68		1,914		
White-fronted Goose	0		0		26		0		46		72		395		
Brant	9		0		0		0		78		355		0		
Total Goose Harvest	3,584		11,917		10,209		14,611		225,585		183,036		64,078		
.....															

Table 7 (continued). Waterfowl harvest estimates in Canada during the 2019 and 2020 hunting seasons (estimates courtesy of the Canadian Wildlife Service).^a

Duck Species Composition	Saskatchewan		Alberta		British Columbia		Nunavut		Northwest Terr.		Yukon Territory		Canada Total	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Mallard	128,476		92,087		21,186		0		517		353		391,620	
Black Duck	329		97		14		0		0		0		49,793	
Gadwall	17,195		11,149		647		0		0		0		37,816	
Wigeon	8,926		7,587		5,553		0		247		71		31,446	
Green-winged Teal	8,290		5,208		1,423		0		80		51		45,662	
Blue-winged/Cinnamon Teal	16,222		6,855		136		0		12		4		33,880	
Northern Shoveler	8,294		6,529		409		0		27		22		18,684	
Northern Pintail	14,384		11,553		2,075		0		72		61		37,722	
Wood Duck	320		105		77		0		0		0		69,194	
Redhead	3,669		2,711		49		0		9		0		19,394	
Canvasback	2,993		1,168		51		0		11		5		9,346	
Greater Scaup	152		217		57		0		6		7		8,460	
Lesser Scaup	2,334		3,925		157		0		133		24		26,547	
Ring-necked Duck	985		814		212		0		55		11		23,064	
Goldeneyes	494		2,005		288		0		26		44		13,747	
Bufflehead	1,119		1,400		412		0		51		47		18,948	
Ruddy Duck	321		174		16		0		12		0		1,606	
Long-tailed Duck	0		0		6		0		9		0		2,722	
Eiders	0		0		5		0		13		0		8,318	
Scoters	190		93		45		0		45		25		6,331	
Hooded Merganser	625		119		50		0		0		0		7,160	
Other Mergansers	0		218		41		0		27		13		8,110	
Other Ducks	0		0		14		0		0		4		103	
Total Duck Harvest	215,318		154,014		32,923		0		1,352		742		869,673	
.....														
Goose Species Composition														
Canada Goose	174,957		156,820		10,876		0		53		202		760,290	
Snow Goose	45,083		17,127		2,011		0		43		13		156,913	
Blue Goose	0		0		0		0		0		0		0	
Ross's Goose	35,064		1,445		23		0		0		0		38,553	
White-fronted Goose	31,264		26,883		92		0		10		26		58,814	
Brant	0		0		0		0		0		0		442	
Total Goose Harvest	286,368		202,275		13,002		0		106		241		1,015,012	
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^a Note: 2020 estimates and numbers of migratory bird permits were not available at the time this report was released; this table will be updated when estimates are received.

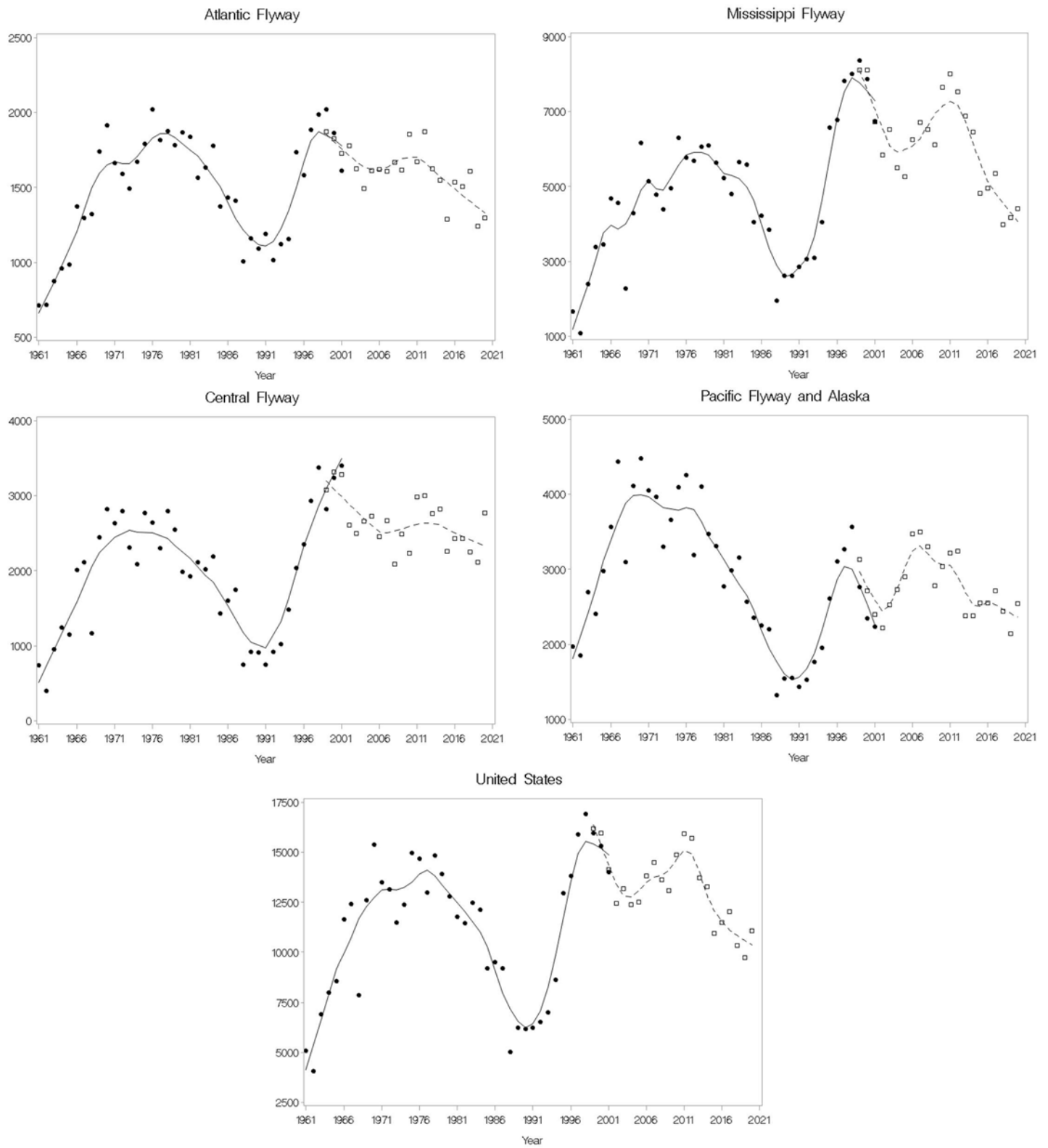


Figure 1. Number of ducks harvested (in thousands) by hunters in the United States, 1961-2020. (Federal Duck Stamp Survey – circles and solid line; HIP survey – squares and dashed line.)

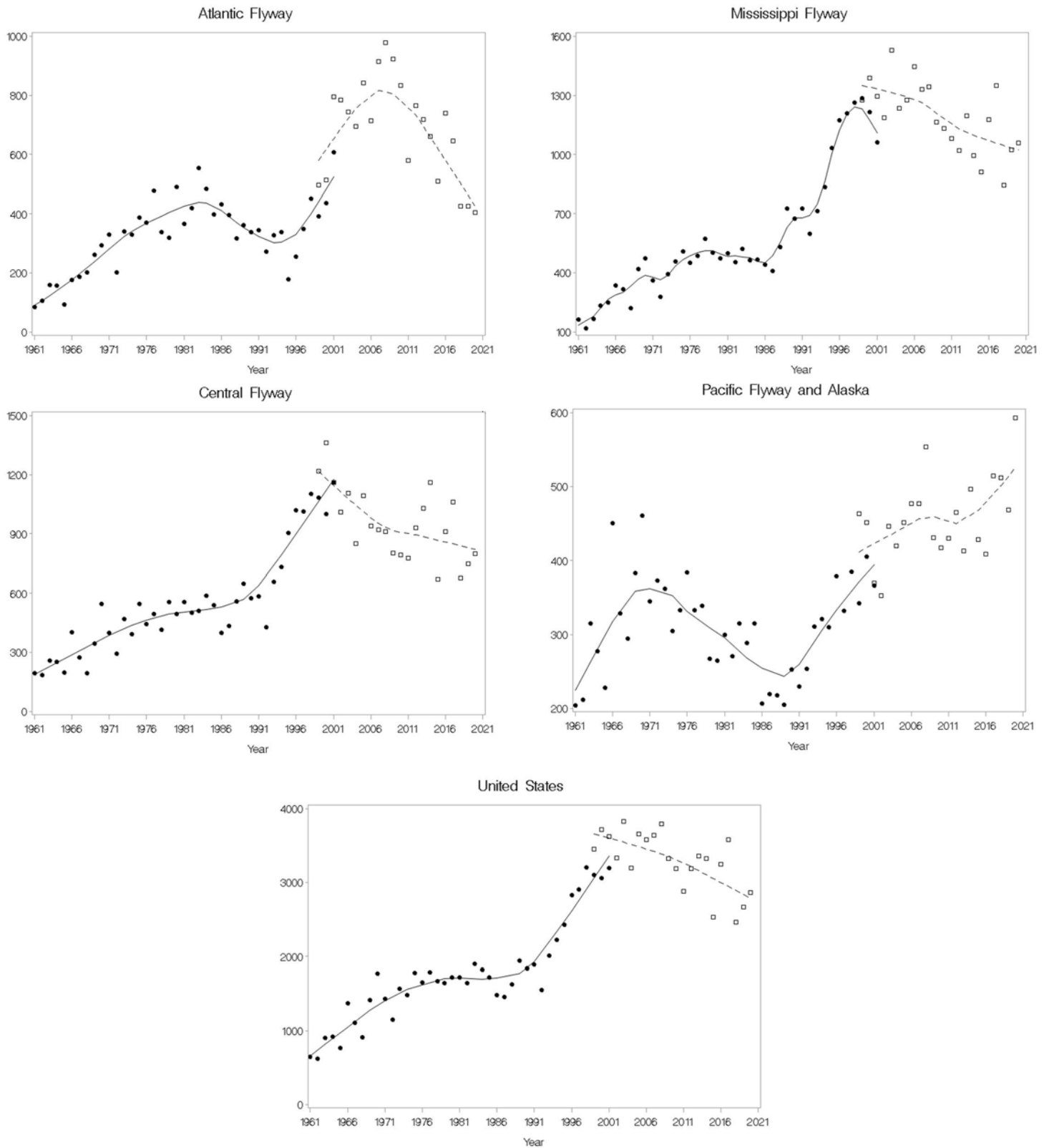


Figure 2. Number of geese harvested (in thousands) by hunters in the United States, 1961-2020. (Federal Duck Stamp Survey – circles and solid line; HIP survey – squares and dashed line).

Table 8. Preliminary weighted age ratios of mallards in state harvests during the 2016-2020 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult ^a				
	2016	2017	2018	2019	2020
Connecticut	1.1	1.2	1.0	1.2	1.0
Delaware	1.1	1.1	1.5	2.8	1.7
Florida	---	---	---	---	---
Georgia	2.1	---	---	0.5	0.6
Maine	1.9	1.9	1.6	1.6	1.3
Maryland	1.4	1.2	1.1	1.1	0.8
Massachusetts	1.1	1.3	1.3	1.0	2.2
New Hampshire	1.5	1.6	2.3	2.4	1.8
New Jersey	0.7	0.9	1.2	1.4	0.7
New York	1.5	1.5	1.6	1.7	1.5
North Carolina	1.2	1.1	0.8	0.8	1.0
Pennsylvania	0.9	1.1	1.0	1.2	1.0
Rhode Island	1.2	1.2	0.9	1.5	1.2
South Carolina	2.4	1.5	1.2	1.2	1.2
Vermont	2.1	1.8	1.6	1.3	1.9
Virginia	0.8	0.8	0.8	0.8	0.8
West Virginia	0.8	0.6	0.8	0.8	0.7
Atlantic Flyway Total ^b	1.24	1.17	1.12	1.19	1.06
Alabama	1.4	0.5	1.1	2.7	1.1
Arkansas	0.7	0.5	0.8	0.7	0.7
Illinois	1.2	1.4	1.3	1.3	1.6
Indiana	0.9	0.7	1.0	1.4	1.4
Iowa	1.6	1.2	2.0	2.0	1.7
Kentucky	0.8	0.5	0.7	1.0	1.0
Louisiana	1.0	0.6	0.7	0.6	0.9
Michigan	2.1	1.3	1.4	1.7	1.9
Minnesota	4.2	2.5	3.0	2.5	3.5
Mississippi	0.9	0.5	0.6	0.7	0.6
Missouri	1.1	1.1	1.2	1.0	1.2
Ohio	1.4	1.1	1.3	1.6	1.4
Tennessee	0.7	0.4	0.8	1.0	1.0
Wisconsin	2.3	2.5	2.2	2.2	2.4
Mississippi Flyway Total ^b	1.09	0.92	1.07	1.05	1.19

Table 8 (continued). Preliminary weighted age ratios of mallards in state harvests during the 2016-2020 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult ^a				
	2016	2017	2018	2019	2020
Colorado	0.7	0.9	0.7	0.9	1.0
Kansas	0.6	0.5	0.6	0.5	0.6
Montana	0.6	0.6	1.1	1.1	0.8
Nebraska	0.8	0.9	0.9	1.1	0.7
New Mexico	1.1	1.1	0.7	2.3	1.2
North Dakota	1.7	1.8	2.2	1.6	1.5
Oklahoma	0.4	0.5	0.4	0.5	0.5
South Dakota	1.8	1.3	1.6	2.0	1.7
Texas	0.5	0.4	0.6	0.7	0.5
Wyoming	0.7	1.2	0.8	0.6	0.6
Central Flyway Total ^b	0.78	0.85	0.90	0.92	0.82
Arizona	1.5	1.2	0.8	1.0	0.8
California	2.2	2.3	1.3	1.7	1.2
Colorado	---	3.5	1.4	6.8	3.1
Idaho	1.0	1.0	0.7	0.8	0.7
Montana	0.6	0.9	0.8	0.9	0.8
Nevada	2.5	2.5	1.6	1.6	0.5
New Mexico	1.5	---	---	1.1	0.7
Oregon	1.7	2.0	1.0	1.1	1.1
Utah	1.4	1.3	0.9	1.1	1.0
Washington	1.1	1.5	0.9	1.0	1.2
Wyoming	2.0	1.7	1.5	2.4	1.8
Pacific Flyway Total ^b	1.25	1.56	0.94	1.13	1.02
Alaska	1.4	2.9	1.7	4.7	3.3
U.S. Total ^b	1.07	1.06	1.00	1.06	1.05

^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 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2016	2017	2018	2019	2020
Mallard					
Atlantic	1.24	1.17	1.12	1.19	1.06
Mississippi	1.09	0.92	1.07	1.05	1.19
Central	0.78	0.85	0.90	0.92	0.82
Pacific	1.25	1.56	0.94	1.13	1.02
U.S. Total	1.07	1.06	1.00	1.06	1.05
Black duck					
Atlantic	1.40	0.97	1.13	1.71	1.48
Mississippi	1.60	1.28	0.99	1.76	2.16
U.S. Total	1.46	1.02	1.11	1.72	1.60
Mottled duck					
Atlantic	1.19	2.42	1.91	2.90	2.01
Mississippi	1.82	0.97	2.49	1.06	1.10
Central	2.38	0.77	---	1.64	1.05
U.S. Total	1.63	1.24	2.00	1.65	1.31
Gadwall					
Atlantic	1.28	0.81	0.92	0.71	0.70
Mississippi	1.02	0.79	1.10	1.05	1.06
Central	0.94	1.00	1.10	1.25	1.31
Pacific	0.97	1.54	1.05	1.45	0.92
U.S. Total	1.01	0.94	1.08	1.14	1.12
American wigeon					
Atlantic	0.50	1.09	0.60	1.07	1.00
Mississippi	1.72	1.54	1.97	1.46	1.64
Central	0.67	0.89	0.97	1.15	1.13
Pacific	0.95	1.22	1.16	1.21	1.10
U.S. Total	0.93	1.19	1.12	1.24	1.16
Green-winged teal					
Atlantic	1.70	1.52	1.42	1.78	1.82
Mississippi	1.58	1.50	1.01	1.30	1.80
Central	1.20	1.59	1.36	1.81	1.49
Pacific	0.90	1.09	0.75	1.10	0.83
U.S. Total	1.24	1.38	0.99	1.34	1.33
Blue-winged/Cinnamon teal					
Atlantic	0.93	1.57	0.94	1.31	2.25
Mississippi	1.27	1.75	1.76	1.36	1.58
Central	0.95	1.18	1.59	1.74	1.53
Pacific	0.83	1.09	1.28	0.81	0.71
U.S. Total	1.04	1.45	1.57	1.44	1.54

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2016	2017	2018	2019	2020
Northern shoveler					
Atlantic	1.46	0.95	1.27	0.82	1.09
Mississippi	0.96	1.06	1.17	1.48	1.43
Central	0.92	1.32	1.71	2.64	2.26
Pacific	0.69	1.16	0.92	0.99	1.11
U.S. Total	0.87	1.14	1.14	1.46	1.45
Northern pintail					
Atlantic	1.35	1.31	0.40	1.56	1.84
Mississippi	1.29	1.30	0.89	1.29	1.62
Central	0.73	0.86	1.02	1.38	1.18
Pacific	0.77	0.88	0.62	0.99	0.84
U.S. Total	0.88	1.01	0.72	1.17	1.12
Wood duck					
Atlantic	1.37	1.36	1.38	1.41	0.93
Mississippi	1.29	1.19	1.34	1.45	1.01
Central	0.87	1.63	1.33	1.74	1.12
Pacific	1.70	2.71	1.99	1.53	1.82
U.S. Total	1.29	1.32	1.37	1.46	1.00
Redhead					
Atlantic	0.72	0.76	0.48	0.77	1.01
Mississippi	1.12	1.23	1.08	1.83	2.18
Central	0.68	1.43	1.79	1.81	1.81
Pacific	0.72	1.67	1.27	3.05	1.53
U.S. Total	0.81	1.27	1.17	1.73	1.79
Canvasback					
Atlantic	0.32	0.36	0.18	---	0.60
Mississippi	1.02	0.83	1.04	1.42	1.82
Central	0.74	0.73	0.95	1.22	2.11
Pacific	1.03	1.70	1.04	1.23	1.08
U.S. Total	0.90	0.85	0.73	1.30	1.44
Greater scaup					
Atlantic	2.71	1.21	0.37	0.96	0.75
Mississippi	3.31	2.31	1.44	2.39	1.95
Central	---	---	---	0.70	---
Pacific	0.91	1.19	1.44	1.86	1.27
U.S. Total	2.14	1.50	0.88	1.59	1.27

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2016	2017	2018	2019	2020
Lesser scaup					
Atlantic	1.18	0.91	0.39	0.90	0.76
Mississippi	1.33	1.06	0.52	1.18	0.68
Central	1.12	1.01	0.85	0.89	0.92
Pacific	1.14	1.81	1.52	2.71	2.18
U.S. Total	1.21	1.06	0.62	1.16	0.87
Ring-necked duck					
Atlantic	1.33	2.03	1.33	1.56	1.64
Mississippi	2.47	1.93	1.69	1.47	1.82
Central	1.57	1.48	0.97	1.19	0.97
Pacific	1.27	2.38	1.54	2.93	1.93
U.S. Total	1.74	1.92	1.39	1.55	1.50
Common goldeneye					
Atlantic	0.72	0.61	0.82	0.89	1.12
Mississippi	1.00	0.83	0.92	1.51	0.81
Central	1.75	0.81	0.77	0.95	0.31
Pacific	1.46	0.56	0.94	1.26	0.70
U.S. Total	1.04	0.69	0.90	1.25	0.65
Bufflehead					
Atlantic	1.24	0.89	1.10	1.04	0.98
Mississippi	0.92	0.96	1.16	1.14	0.89
Central	0.81	0.70	0.87	0.95	0.69
Pacific	0.62	1.44	1.26	1.34	1.19
U.S. Total	0.98	0.97	1.11	1.10	0.94
Ruddy duck					
Atlantic	1.34	0.77	0.67	2.99	5.67
Mississippi	1.81	1.66	5.23	5.00	2.18
Central	3.24	1.42	1.48	3.25	1.94
Pacific	3.21	1.23	2.42	2.48	1.24
U.S. Total	1.95	1.12	1.45	3.56	2.27
Hooded merganser					
Atlantic	1.03	0.78	0.87	1.07	1.07
Mississippi	1.35	0.98	1.04	1.38	1.44
Central	0.61	0.51	1.09	0.43	0.83
Pacific	1.38	1.18	0.88	1.94	0.91
U.S. Total	1.12	0.87	0.96	1.24	1.23

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2016	2017	2018	2019	2020
Common merganser					
Atlantic	1.59	0.88	1.46	1.22	1.92
Mississippi	---	0.52	---	1.34	0.66
Central	0.79	1.11	0.73	1.12	2.33
Pacific	1.11	0.78	0.85	1.19	1.40
U.S. Total	1.28	1.06	0.45	1.10	2.45
Red-breasted merganser					
Atlantic	1.09	0.71	1.33	---	4.28
Mississippi	1.15	0.96	0.70	0.79	2.03
U.S. Total	0.59	0.70	0.41	0.30	0.38
Long-tailed duck					
Atlantic	0.52	1.62	1.13	1.64	0.44
Mississippi	0.61	0.87	0.48	0.46	0.43
U.S. Total	0.39	0.22	0.69	0.29	0.99
Common eider					
Atlantic	0.39	0.22	0.69	0.31	1.03
U.S. Total	0.82	1.11	0.29	0.25	0.55
Black scoter					
Atlantic	0.89	1.05	0.31	0.26	0.61
U.S. Total	2.26	2.40	---	0.60	1.43
White-winged scoter					
Atlantic	---	---	---	---	---
Pacific	3.29	2.44	2.97	0.87	1.86
U.S. Total	0.47	0.46	0.17	0.71	0.70
Surf scoter					
Atlantic	1.29	2.05	0.78	0.50	0.22
Pacific	0.66	0.44	0.20	0.68	0.64
U.S. Total	---	---	---	---	---

^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 2016-2020 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Males per female ^a				
	2016	2017	2018	2019	2020
Connecticut	1.9	2.2	2.2	1.4	1.5
Delaware	1.3	1.8	1.9	1.0	1.4
Florida	---	---	---	---	---
Georgia	1.1	---	---	1.4	1.5
Maine	1.5	1.6	2.0	2.4	1.6
Maryland	1.8	2.3	1.9	1.8	2.1
Massachusetts	1.7	2.1	2.1	2.1	1.5
New Hampshire	1.4	1.7	1.4	1.5	1.9
New Jersey	2.9	1.9	2.0	1.6	2.4
New York	2.1	2.1	2.3	2.1	1.9
North Carolina	1.7	1.9	2.2	2.1	2.1
Pennsylvania	2.1	2.0	2.1	1.9	2.1
Rhode Island	2.3	2.0	1.3	2.1	2.0
South Carolina	1.5	1.2	2.1	1.7	1.6
Vermont	2.0	2.0	2.2	1.6	1.9
Virginia	1.9	1.9	2.0	2.0	2.9
West Virginia	2.5	2.7	2.3	2.8	1.4
Atlantic Flyway Total ^b	1.83	1.98	2.06	1.85	2.02
Alabama	1.5	2.2	3.7	2.4	1.8
Arkansas	2.9	3.1	3.6	3.9	4.6
Illinois	2.5	1.9	2.2	2.2	2.4
Indiana	2.7	2.2	1.8	2.3	1.9
Iowa	2.3	1.9	2.4	2.5	1.8
Kentucky	2.9	3.0	2.1	2.2	2.4
Louisiana	2.2	2.2	3.4	4.5	3.7
Michigan	1.4	1.6	1.6	1.8	1.4
Minnesota	1.2	1.9	1.6	1.5	1.4
Mississippi	2.7	3.6	4.9	3.5	5.6
Missouri	3.1	3.2	3.2	4.0	3.5
Ohio	2.4	2.8	2.4	2.0	2.1
Tennessee	2.6	3.2	2.0	3.0	2.0
Wisconsin	2.2	1.8	2.0	2.2	1.7
Mississippi Flyway Total ^b	2.38	2.47	2.59	2.82	2.60

Table 10 (continued). Preliminary weighted sex ratios of mallards in state harvests during the 2016-2020 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Males per female ^a				
	2016	2017	2018	2019	2020
Colorado	3.0	3.5	3.9	2.7	3.2
Kansas	6.6	4.4	5.4	6.7	5.4
Montana	7.3	2.7	2.3	4.9	3.1
Nebraska	5.3	4.1	4.5	4.5	4.5
New Mexico	2.2	3.9	1.5	2.2	2.1
North Dakota	2.4	2.4	2.3	2.4	2.8
Oklahoma	3.4	3.1	5.0	4.0	4.1
South Dakota	4.3	4.4	5.8	4.1	3.0
Texas	3.7	4.1	4.1	3.6	3.4
Wyoming	6.6	3.7	3.4	4.5	4.1
Central Flyway Total ^b	3.64	3.29	3.58	3.65	3.59
Arizona	1.2	2.0	2.0	2.2	1.7
California	2.1	2.4	2.6	2.6	2.6
Colorado	---	2.3	1.7	1.9	1.2
Idaho	2.7	2.9	3.2	2.8	3.3
Montana	4.2	3.1	2.5	3.8	4.6
Nevada	1.7	1.5	1.7	1.6	2.7
New Mexico	5.3	---	---	1.8	2.4
Oregon	2.3	1.9	1.9	2.1	2.3
Utah	2.6	2.6	2.3	2.1	2.5
Washington	2.4	3.2	2.7	2.3	2.3
Wyoming	1.3	2.9	2.4	1.8	2.5
Pacific Flyway Total ^b	2.50	2.53	2.56	2.44	2.67
Alaska	1.4	1.5	1.6	1.4	1.4
U.S. Total ^b	2.52	2.55	2.68	2.74	2.71

^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 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Males per female ^{a,b}				
	2016	2017	2018	2019	2020
Mallard					
Atlantic	1.83	1.98	2.06	1.85	2.02
Mississippi	2.38	2.47	2.59	2.82	2.60
Central	3.64	3.29	3.58	3.65	3.59
Pacific	2.50	2.53	2.56	2.44	2.67
U.S. Total	2.52	2.55	2.68	2.74	2.71
Black duck					
Atlantic	1.05	1.12	1.04	1.01	1.09
Mississippi	0.59	1.06	1.15	0.71	0.62
U.S. Total	0.89	1.11	1.05	0.93	0.97
Mottled duck					
Atlantic	1.12	1.17	1.32	0.70	1.18
Mississippi	1.72	1.30	0.90	1.25	0.56
Central	1.70	1.30	---	1.64	0.87
U.S. Total	1.47	1.25	1.10	1.04	0.81
Gadwall					
Atlantic	2.23	1.65	2.31	2.30	1.91
Mississippi	1.76	1.96	1.70	1.81	2.09
Central	1.71	1.79	1.73	1.65	1.82
Pacific	1.63	1.73	1.67	1.70	1.92
U.S. Total	1.76	1.86	1.74	1.76	1.95
American wigeon					
Atlantic	2.11	1.78	1.71	2.58	1.92
Mississippi	1.67	1.41	1.36	1.24	1.47
Central	1.70	1.58	1.80	1.82	1.73
Pacific	1.66	1.56	1.54	1.55	1.66
U.S. Total	1.69	1.54	1.56	1.57	1.65
Green-winged teal					
Atlantic	1.35	1.45	1.27	1.21	1.54
Mississippi	1.90	1.80	1.89	1.88	1.93
Central	1.87	1.94	1.72	1.87	1.95
Pacific	1.76	1.92	1.82	1.91	1.70
U.S. Total	1.80	1.83	1.76	1.83	1.82
Blue-winged/Cinnamon teal					
Atlantic	1.71	1.44	1.40	1.31	1.53
Mississippi	1.06	1.20	1.30	1.40	1.41
Central	1.68	1.66	1.55	1.37	1.51
Pacific	1.83	1.30	0.97	1.41	1.64
U.S. Total	1.43	1.38	1.39	1.38	1.46

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Males per female ^{a,b}				
	2016	2017	2018	2019	2020
Northern shoveler					
Atlantic	1.20	1.56	1.33	1.40	1.82
Mississippi	1.62	1.85	1.92	1.68	1.83
Central	1.50	1.41	1.37	1.31	1.42
Pacific	1.97	1.84	1.76	1.79	1.64
U.S. Total	1.67	1.73	1.69	1.58	1.63
Northern pintail					
Atlantic	1.55	1.45	2.43	2.18	1.70
Mississippi	2.15	1.92	2.40	2.50	2.16
Central	2.49	1.91	2.08	2.05	2.20
Pacific	3.09	2.96	3.06	3.28	3.28
U.S. Total	2.53	2.24	2.66	2.67	2.52
Wood duck					
Atlantic	1.96	1.91	1.95	2.11	2.14
Mississippi	1.91	1.73	2.02	2.00	1.92
Central	2.18	1.88	2.62	2.38	2.29
Pacific	2.06	1.44	1.49	2.41	2.10
U.S. Total	1.95	1.80	2.01	2.08	2.03
Redhead					
Atlantic	1.84	1.65	1.58	1.42	1.12
Mississippi	1.31	1.97	1.85	1.37	1.37
Central	1.52	1.23	1.43	1.60	1.36
Pacific	1.78	1.67	1.72	1.45	1.40
U.S. Total	1.49	1.51	1.62	1.50	1.35
Canvasback					
Atlantic	0.61	0.78	1.44	---	1.08
Mississippi	1.54	1.84	2.09	1.66	1.15
Central	1.05	1.28	1.33	1.25	1.30
Pacific	1.25	1.15	1.18	1.63	1.07
U.S. Total	1.27	1.36	1.52	1.50	1.15
Greater scaup					
Atlantic	1.12	1.56	1.18	1.24	1.07
Mississippi	1.16	1.24	1.42	1.26	2.79
Central	---	---	---	2.00	---
Pacific	1.34	1.74	2.28	1.43	1.19
U.S. Total	1.24	1.51	1.40	1.31	1.57

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Males per female ^{a,b}				
	2016	2017	2018	2019	2020
Lesser scaup					
Atlantic	1.78	2.32	4.43	2.00	2.83
Mississippi	2.21	2.23	2.28	1.78	2.25
Central	1.26	2.20	1.74	2.37	1.85
Pacific	1.52	1.20	1.49	1.15	1.09
U.S. Total	1.72	2.13	2.31	1.86	1.99
Ring-necked duck					
Atlantic	1.39	1.45	1.76	1.47	1.47
Mississippi	2.15	2.03	1.70	2.00	2.05
Central	2.31	1.95	1.62	2.24	2.21
Pacific	1.74	1.65	1.27	2.20	1.49
U.S. Total	1.84	1.83	1.64	1.95	1.86
Common goldeneye					
Atlantic	1.32	1.28	0.82	1.52	0.98
Mississippi	1.23	1.25	1.46	1.41	1.36
Central	1.53	1.43	1.88	0.90	1.67
Pacific	1.22	1.79	1.24	2.01	2.40
U.S. Total	1.29	1.44	1.34	1.57	1.74
Bufflehead					
Atlantic	1.22	2.09	1.38	1.81	1.95
Mississippi	1.38	1.46	1.26	1.23	1.65
Central	1.25	1.36	1.61	1.47	1.68
Pacific	1.44	1.31	1.27	1.33	1.66
U.S. Total	1.31	1.61	1.34	1.46	1.74
Hooded merganser					
Atlantic	2.97	2.24	1.54	2.46	2.57
Mississippi	2.06	1.81	1.81	2.21	2.11
Central	2.14	3.27	2.24	---	7.89
Pacific	---	1.88	1.48	3.16	2.15
U.S. Total	2.37	2.07	1.72	2.37	2.52
Common merganser					
Atlantic	1.10	1.57	1.23	0.75	0.58
Mississippi	---	0.91	---	0.78	0.99
Central	0.63	0.99	1.16	0.84	1.03
Pacific	0.82	1.19	1.04	0.78	0.69
U.S. Total	---	---	---	---	---

^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 2016-2020 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2016	2017	2018	2019	2020
Canada goose					
Atlantic	0.44	0.50	0.24	0.41	0.48
Mississippi	0.42	0.41	0.32	0.36	0.37
Central	0.44	0.49	0.28	0.35	0.46
Pacific	0.71	0.51	0.39	0.35	0.36
U.S. Total	0.46	0.46	0.30	0.37	0.41
Snow goose					
Atlantic	0.58	1.41	0.05	0.50	0.55
Mississippi	0.38	0.77	0.19	0.46	0.17
Central	0.54	0.56	0.08	0.36	0.23
Pacific	0.77	0.81	0.39	0.87	0.54
U.S. Total	0.55	0.69	0.22	0.56	0.35
Blue goose					
Mississippi	---	---	---	1.59	---
Central	0.40	1.24	0.23	0.20	0.30
U.S. Total	0.65	0.79	0.06	0.82	0.44
Ross' goose					
Mississippi	0.51	0.98	0.13	0.65	0.39
Central	0.88	1.48	---	1.25	---
Pacific	1.07	0.79	0.11	0.97	0.53
U.S. Total	0.77	0.86	0.29	0.71	1.78
Greater white-fronted goose					
Mississippi	0.96	0.96	0.16	0.92	0.88
Central	0.71	0.64	0.24	0.63	0.44
Pacific	0.39	0.56	0.29	0.56	0.46
U.S. Total	0.75	0.29	0.44	0.55	0.56
Brant					
Atlantic	0.62	0.53	0.31	0.60	0.49
Pacific	0.86	0.35	0.02	0.20	0.26
U.S. Total	0.55	0.25	1.12	---	0.91

^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.

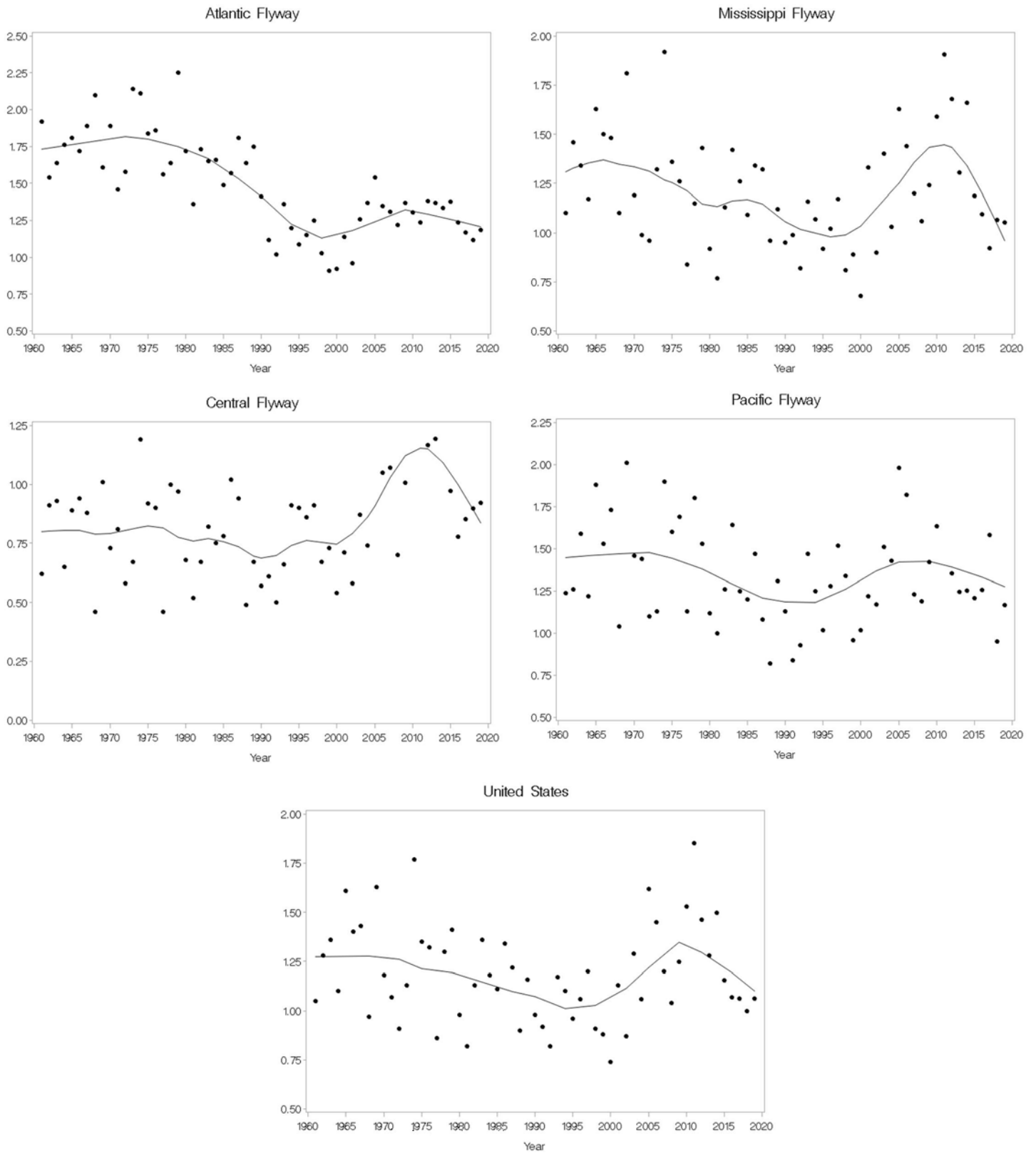


Figure 3. Age ratios of mallards harvested in the United States, 1961-2020.

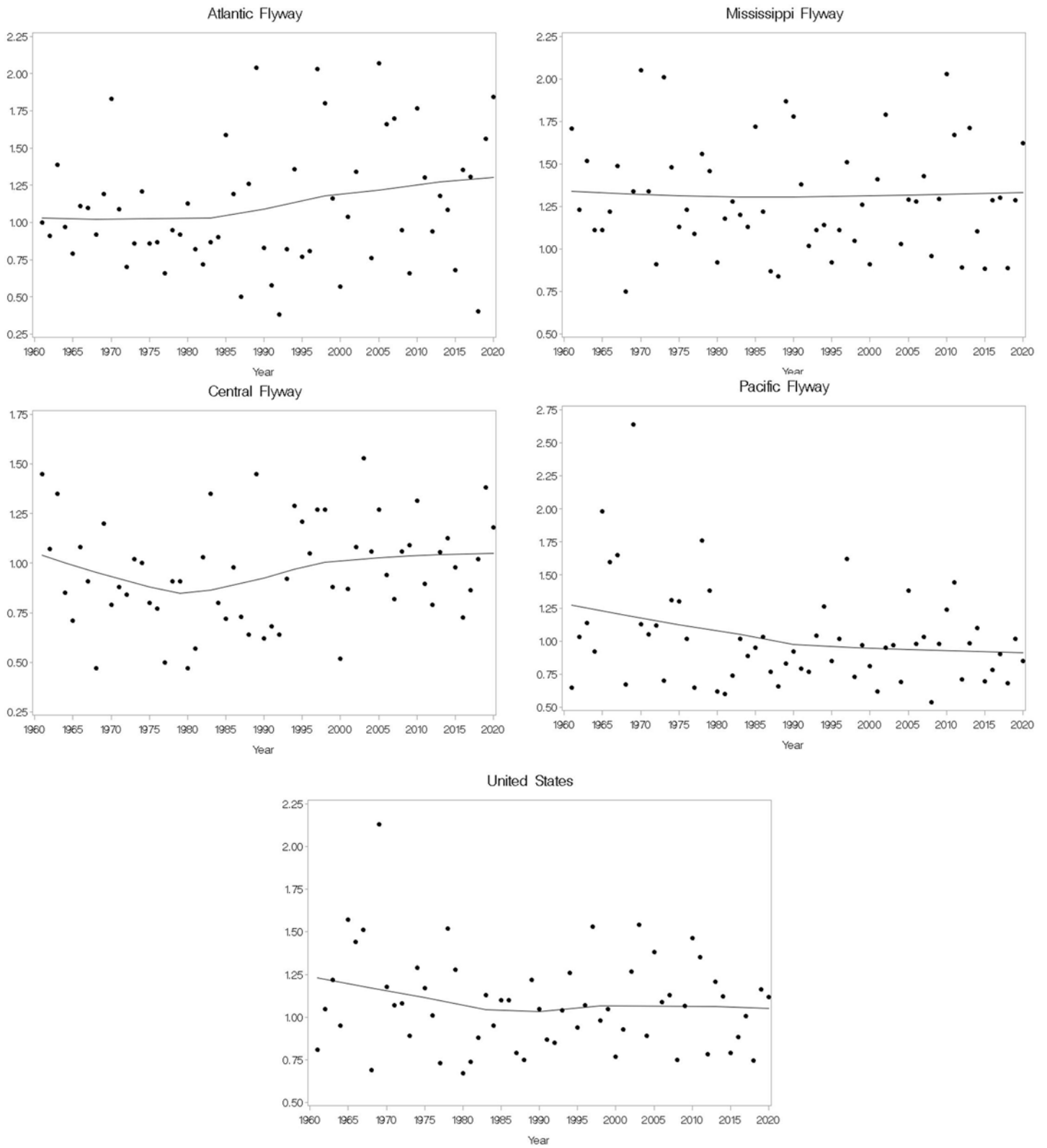


Figure 4. Age ratios of northern pintails harvested in the United States, 1961-2020.

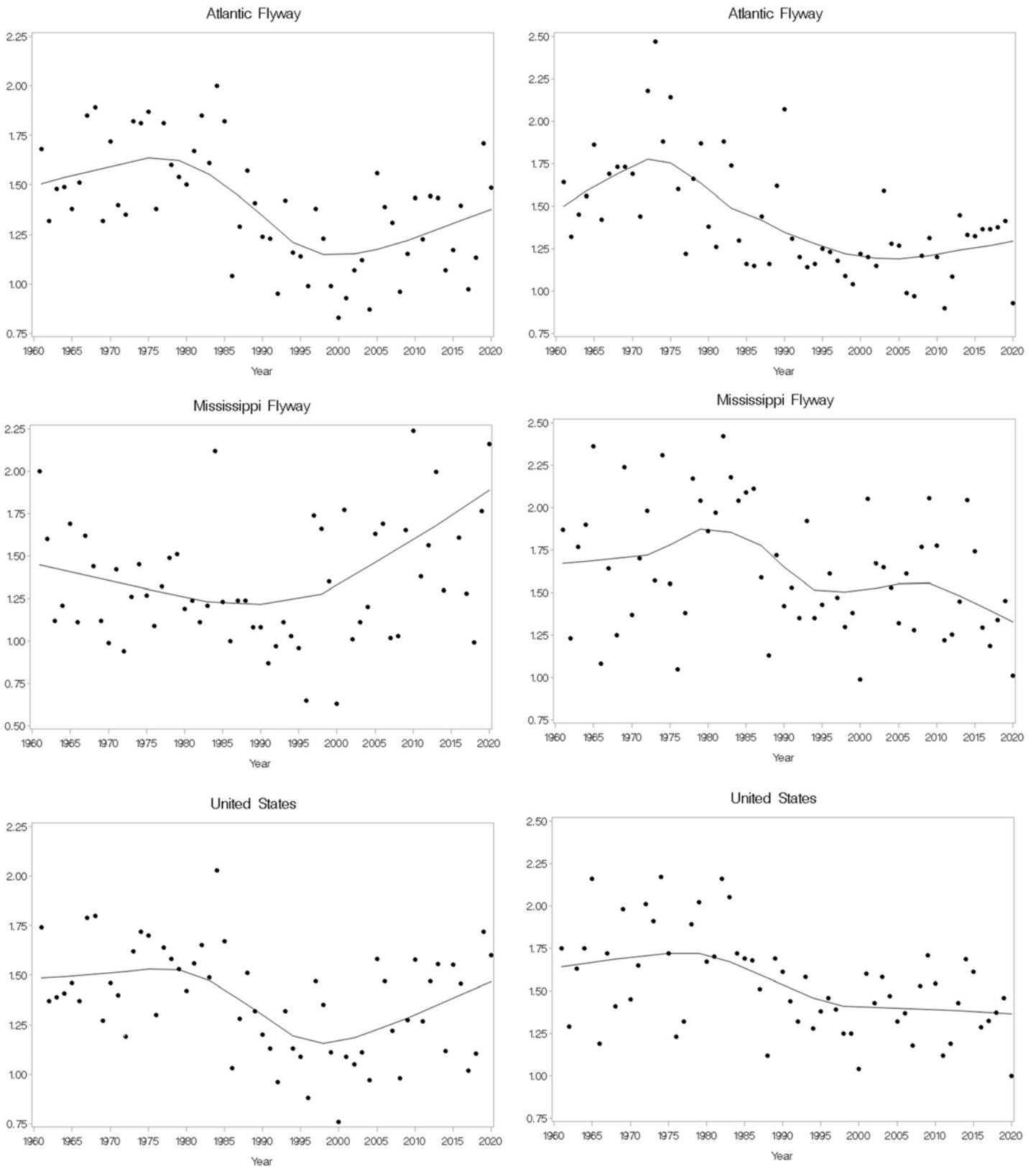


Figure 5. Age ratios of American black ducks (left column) and wood ducks (right column) harvested in the United States, 1961-2020.

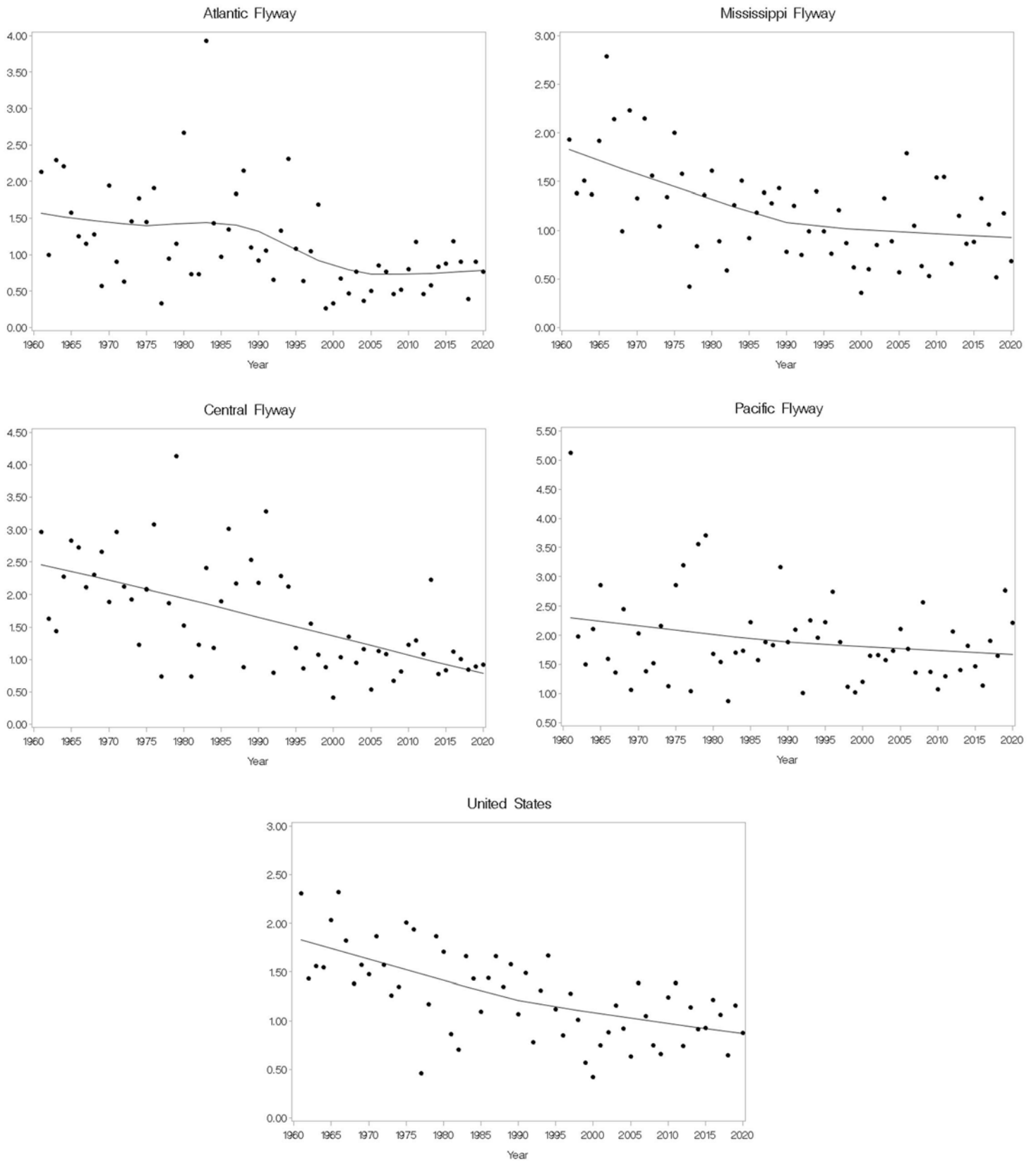


Figure 6. Age ratios of lesser scaup harvested in the United States, 1961-2020.

Table 13. Preliminary estimates of mourning dove harvest and hunter activity during the 2019 and 2020 hunting seasons.^a

	Mourning Dove Harvest		Active Hunters ^b		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Alabama	512,800 ± 23%	617,800 ± 28%	28,600 ± 14%	36,200 ± 12%	61,700 ± 19%	97,700 ± 23%	17.9 ± 26%	17.1 ± 30%
Delaware	20,700 ± 35%	8,700 ± 51%	1,200 ± 28%	1,700 ± 38%	4,000 ± 32%	4,800 ± 66%	17.3 ± 45%	5.2 ± 63%
Florida	113,000 ± 43%	149,300 ± 75%	7,400 ± 42%	8,700 ± 42%	24,200 ± 39%	31,900 ± 64%	15.2 ± 60%	17.1 ± 86%
Georgia	713,600 ± 16%	856,500 ± 18%	33,400 ± 13%	39,300 ± 14%	93,300 ± 15%	112,400 ± 19%	21.3 ± 21%	21.8 ± 23%
Illinois	148,800 ± 29%	171,500 ± 38%	11,300 ± 22%	14,200 ± 31%	25,900 ± 26%	30,900 ± 30%	13.2 ± 36%	12.0 ± 49%
Indiana	112,600 ± 28%	177,300 ± 34%	8,600 ± 27%	11,400 ± 24%	21,100 ± 26%	30,700 ± 29%	13.1 ± 39%	15.6 ± 41%
Kentucky	223,300 ± 13%	282,200 ± 22%	11,200 ± 18%	13,300 ± 25%	32,800 ± 18%	37,900 ± 22%	19.9 ± 22%	21.2 ± 34%
Louisiana	63,800 ± 53%	183,700 ± 35%	6,100 ± 46%	10,000 ± 33%	11,200 ± 43%	23,500 ± 31%	10.5 ± 70%	18.4 ± 48%
Maryland	66,200 ± 27%	77,800 ± 27%	6,200 ± 27%	5,700 ± 25%	18,400 ± 55%	15,900 ± 41%	10.7 ± 38%	13.6 ± 37%
Mississippi	193,400 ± 21%	214,600 ± 22%	12,700 ± 19%	15,300 ± 18%	28,400 ± 24%	28,400 ± 18%	15.2 ± 28%	14.0 ± 29%
North Carolina	336,600 ± 20%	573,800 ± 25%	33,300 ± 22%	42,400 ± 21%	61,000 ± 20%	106,400 ± 26%	10.1 ± 30%	13.5 ± 33%
Ohio	93,000 ± 36%	132,200 ± 35%	10,200 ± 25%	10,500 ± 26%	25,000 ± 27%	41,200 ± 35%	9.1 ± 44%	12.6 ± 43%
Pennsylvania	98,500 ± 36%	110,400 ± 33%	12,200 ± 30%	14,000 ± 30%	75,400 ± 98%	44,800 ± 36%	8.1 ± 47%	7.9 ± 45%
Rhode Island	300 ± 64%	400 ± 69%	100 ± 64%	100 ± 65%	300 ± 74%	400 ± 40%	2.8 ± 91%	3.0 ± 94%
South Carolina	493,200 ± 32%	353,200 ± 30%	22,400 ± 22%	21,500 ± 25%	60,900 ± 26%	48,400 ± 26%	22.0 ± 39%	16.5 ± 39%
Tennessee	228,700 ± 23%	467,200 ± 33%	17,100 ± 23%	26,000 ± 22%	46,300 ± 40%	69,400 ± 28%	13.4 ± 32%	17.9 ± 40%
Virginia	186,000 ± 16%	213,500 ± 21%	13,600 ± 16%	16,200 ± 18%	33,600 ± 17%	42,500 ± 27%	13.7 ± 23%	13.2 ± 27%
West Virginia	10,900 ± 30%	7,900 ± 33%	1,100 ± 23%	1,000 ± 27%	2,700 ± 27%	2,600 ± 37%	9.5 ± 38%	8.0 ± 43%
Wisconsin	41,400 ± 46%	50,400 ± 41%	5,300 ± 37%	6,300 ± 39%	17,200 ± 52%	22,900 ± 43%	7.8 ± 59%	8.0 ± 57%
Eastern Unit Total	3,656,800 ± 7%	4,648,300 ± 8%	242,200	293,800	643,500 ± 13%	792,700 ± 8%		
Arkansas	328,100 ± 45%	320,300 ± 27%	14,200 ± 30%	20,000 ± 23%	37,500 ± 37%	47,600 ± 30%	23.0 ± 54%	16.1 ± 36%
Colorado	106,300 ± 17%	124,600 ± 19%	10,700 ± 15%	12,700 ± 15%	22,800 ± 17%	27,200 ± 18%	10.0 ± 23%	9.8 ± 24%
Iowa	29,900 ± 31%	104,600 ± 17%	3,600 ± 19%	9,700 ± 14%	11,000 ± 32%	25,000 ± 19%	8.2 ± 36%	10.8 ± 22%
Kansas	389,800 ± 32%	366,000 ± 32%	22,300 ± 17%	22,800 ± 21%	64,800 ± 26%	62,800 ± 28%	17.5 ± 36%	16.0 ± 39%
Minnesota	40,200 ± 58%	63,100 ± 88%	3,900 ± 69%	7,000 ± 63%	9,400 ± 49%	23,800 ± 64%	10.4 ± 90%	9.0 ± 108%
Missouri	268,000 ± 21%	318,400 ± 25%	21,100 ± 14%	24,300 ± 14%	47,100 ± 16%	63,600 ± 21%	12.7 ± 25%	13.1 ± 28%
Montana	16,600 ± 55%	32,900 ± 78%	1,600 ± 43%	2,200 ± 44%	3,600 ± 43%	6,600 ± 56%	10.1 ± 70%	14.9 ± 90%
Nebraska	137,700 ± 20%	159,900 ± 20%	10,700 ± 19%	12,400 ± 19%	24,500 ± 20%	33,600 ± 25%	12.8 ± 27%	12.9 ± 27%
New Mexico	125,400 ± 34%	147,400 ± 22%	8,300 ± 16%	10,600 ± 13%	28,800 ± 28%	37,000 ± 18%	15.0 ± 38%	13.9 ± 25%

^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 13 (continued). Preliminary estimates of mourning dove harvest and hunter activity during the 2019 and 2020 hunting seasons.^a

	Mourning Dove Harvest		Active Hunters ^b		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
North Dakota	75,000 ± 51%	75,400 ± 30%	4,100 ± 26%	4,500 ± 25%	11,900 ± 34%	13,900 ± 40%	18.5 ± 57%	16.8 ± 39%
Oklahoma	247,900 ± 21%	339,600 ± 23%	14,800 ± 16%	19,000 ± 19%	38,000 ± 22%	58,200 ± 30%	16.7 ± 26%	17.9 ± 29%
South Dakota	103,300 ± 36%	92,800 ± 31%	4,700 ± 24%	6,000 ± 24%	15,500 ± 34%	14,500 ± 22%	22.0 ± 44%	15.5 ± 40%
Texas	3,385,000 ± 18%	3,729,300 ± 16%	216,300 ± 12%	216,100 ± 13%	669,000 ± 14%	754,800 ± 20%	15.7 ± 22%	17.3 ± 20%
Wyoming	13,200 ± 32%	11,300 ± 40%	1,300 ± 30%	1,000 ± 39%	2,800 ± 36%	2,300 ± 43%	10.5 ± 44%	10.8 ± 56%
Central Unit Total	5,266,400 ± 12%	5,885,700 ± 11%	337,700	368,200	986,800 ± 10%	1,171,000 ± 13%		
Arizona	235,400 ± 13%	355,900 ± 11%	13,100 ± 7%	17,400 ± 7%	36,500 ± 11%	54,100 ± 10%	17.9 ± 15%	20.4 ± 13%
California	641,600 ± 11%	684,500 ± 15%	44,500 ± 9%	47,800 ± 10%	112,000 ± 12%	117,900 ± 13%	14.4 ± 15%	14.3 ± 18%
Idaho	48,600 ± 63%	32,700 ± 45%	6,700 ± 43%	3,800 ± 44%	13,400 ± 48%	9,900 ± 49%	7.2 ± 77%	8.6 ± 62%
Nevada	25,300 ± 65%	7,600 ± 54%	3,000 ± 30%	800 ± 32%	6,200 ± 38%	1,900 ± 50%	8.5 ± 72%	10.0 ± 63%
Oregon	24,200 ± 64%	19,500 ± 41%	3,300 ± 37%	3,100 ± 36%	8,400 ± 41%	17,200 ± 109%	7.3 ± 73%	6.2 ± 55%
Utah	38,700 ± 32%	26,400 ± 30%	7,600 ± 20%	6,300 ± 26%	17,600 ± 28%	13,300 ± 32%	5.1 ± 38%	4.2 ± 40%
Washington	46,400 ± 30%	43,500 ± 29%	4,800 ± 20%	4,400 ± 21%	13,100 ± 31%	11,700 ± 26%	9.7 ± 36%	10.0 ± 36%
Western Unit Total	1,060,200 ± 8%	1,170,100 ± 9%	83,000	83,600	207,200 ± 8%	226,100 ± 11%		
United States Total	9,983,500 ± 7%	11,704,100 ± 6%	662,900	745,600	1,837,400 ± 7%	2,189,800 ± 8%		

^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 14. Preliminary estimates of white-winged dove harvest and hunter activity during the 2019 and 2020 hunting seasons. ^a

	<u>White-winged Dove Harvest</u>		<u>Active Hunters ^b</u>		<u>White-winged Dove Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2019	2020	2019	2020	2019	2020	2019	2020
Alabama	3,300 ± 101%	15,400 ± 149%	1,200 ± 74%	1,500 ± 77%	1,400 ± 77%	7,600 ± 114%	2.7 ± 125%	10.1 ± 167%
Delaware	0	0	0	0	0	0	0	0
Florida	17,900 ± 170%	8,200 ± 143%	1,400 ± 106%	2,200 ± 94%	6,600 ± 112%	11,300 ± 151%	13.1 ± 201%	3.8 ± 171%
Georgia	2,900 ± 137%	2,100 ± 118%	1,000 ± 116%	400 ± 115%	4,400 ± 109%	1,500 ± 113%	3.0 ± 179%	4.8 ± 165%
Louisiana	1,000 ± 167%	4,400 ± 90%	300 ± 98%	1,500 ± 93%	800 ± 104%	3,000 ± 66%	3.6 ± 194%	2.9 ± 129%
Maryland	0	0	0	0	0	0	0	0
Mississippi	2,500 ± 135%	900 ± 123%	600 ± 110%	1,000 ± 83%	1,100 ± 97%	2,300 ± 87%	4.2 ± 174%	0.9 ± 149%
North Carolina	0	0	300 ± 138%	0	400 ± 145%	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	0	0
Eastern Unit Total	27,600 ± 113%	31,000 ± 83%	4,700	7,500	14,800 ± 61%	25,800 ± 70%		
Colorado	1,000 ± 69%	3,000 ± 92%	900 ± 52%	2,200 ± 46%	2,500 ± 65%	4,300 ± 52%	1.1 ± 87%	1.4 ± 103%
Kansas	1,900 ± 168%	200 ± 137%	1,200 ± 97%	1,900 ± 96%	3,700 ± 106%	2,400 ± 106%	1.5 ± 194%	0.1 ± 167%
New Mexico	45,000 ± 37%	82,300 ± 31%	4,700 ± 23%	6,200 ± 18%	13,800 ± 25%	23,600 ± 25%	9.7 ± 43%	13.2 ± 35%
Oklahoma	5,700 ± 57%	10,400 ± 61%	1,800 ± 53%	2,600 ± 52%	7,900 ± 82%	7,700 ± 62%	3.2 ± 78%	4.0 ± 80%
Texas	1,574,600 ± 29%	939,600 ± 22%	125,900 ± 17%	121,100 ± 18%	426,500 ± 23%	469,800 ± 32%	12.5 ± 34%	7.8 ± 29%
Central Unit Total	1,628,100 ± 28%	1,035,500 ± 20%	134,400	134,100	454,500 ± 22%	507,800 ± 30%		
Arizona	52,500 ± 16%	54,900 ± 15%	8,200 ± 10%	9,600 ± 10%	22,400 ± 15%	27,700 ± 14%	6.4 ± 19%	5.7 ± 19%
California	38,600 ± 32%	39,800 ± 57%	9,200 ± 24%	9,900 ± 24%	20,900 ± 27%	22,400 ± 28%	4.2 ± 40%	4.0 ± 62%
Nevada	1,200 ± 116%	600 ± 117%	500 ± 80%	200 ± 85%	1,000 ± 85%	300 ± 100%	2.4 ± 141%	3.1 ± 145%
Utah	100 ± 135%	300 ± 192%	900 ± 72%	1,100 ± 76%	1,600 ± 74%	1,800 ± 80%	0.1 ± 153%	0.3 ± 206%
Western Unit Total	92,400 ± 16%	95,600 ± 25%	18,900	20,700	45,800 ± 15%	52,200 ± 14%		
United States Total	1,748,000 ± 26%	1,162,600 ± 18%	158,000	162,300	515,100 ± 19%	585,800 ± 26%		

^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 2019 and 2020 hunting seasons. ^a

	<u>Band-tailed Pigeon Harvest</u>		<u>Active Hunters ^b</u>		<u>Band-tailed Pigeon Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2019	2020	2019	2020	2019	2020	2019	2020
Arizona	500 ± 109%	100 ± 97%	500 ± 70%	400 ± 83%	1,800 ± 87%	1,400 ± 93%	1.0 ± 130%	0.2 ± 128%
Colorado	<50 ± 69%	<50 ± 97%	<50 ± 36%	<50 ± 33%	100 ± 46%	100 ± 40%	0.5 ± 78%	0.1 ± 103%
New Mexico	100 ± 108%	200 ± 80%	100 ± 29%	100 ± 22%	200 ± 42%	400 ± 31%	0.8 ± 112%	2.0 ± 83%
Utah	<50 ± 87%	<50 ± 120%	<50 ± 36%	<50 ± 36%	100 ± 67%	100 ± 56%	1.4 ± 94%	1.3 ± 125%
Interior Total	600 ± 90%	300 ± 58%	600	500	2,100 ± 73%	1,900 ± 68%		
California	8,400 ± 65%	4,800 ± 65%	2,600 ± 47%	2,100 ± 53%	9,300 ± 90%	3,700 ± 50%	3.2 ± 80%	2.2 ± 84%
Oregon	1,100 ± 33%	1,100 ± 38%	400 ± 17%	400 ± 19%	1,100 ± 23%	1,000 ± 30%	2.4 ± 37%	2.9 ± 42%
Washington	200 ± 44%	300 ± 48%	100 ± 30%	200 ± 27%	300 ± 38%	400 ± 34%	2.1 ± 53%	1.6 ± 55%
Pacific Coast Total	9,700 ± 57%	6,100 ± 51%	3,200	2,600	10,700 ± 78%	5,000 ± 37%		
United States Total	10,300 ± 54%	6,400 ± 49%	3,800	3,200	12,800 ± 67%	6,900 ± 33%		

^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 16. Preliminary estimates of American woodcock harvest and hunter activity during the 2019 and 2020 hunting seasons. ^a

	Woodcock Harvest		Active Woodcock Hunters ^b		Woodcock Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Connecticut	1,200 ± 50%	500 ± 57%	800 ± 41%	500 ± 38%	4,700 ± 66%	1,800 ± 35%	1.6 ± 65%	1.1 ± 68%
Delaware	100 ± 103%	500 ± 72%	<50 ± 78%	400 ± 84%	100 ± 96%	1,100 ± 65%	2.5 ± 129%	1.3 ± 110%
Florida	0	0	100 ± 195%	2,400 ± 189%	800 ± 195%	2,900 ± 160%	0	0
Georgia	1,800 ± 169%	900 ± 95%	4,800 ± 110%	300 ± 65%	6,500 ± 115%	1,800 ± 82%	0.4 ± 202%	3.0 ± 115%
Maine	6,200 ± 17%	9,600 ± 25%	3,300 ± 37%	5,500 ± 29%	15,300 ± 34%	24,700 ± 33%	1.9 ± 41%	1.7 ± 39%
Maryland	300 ± 81%	800 ± 101%	200 ± 45%	900 ± 116%	500 ± 53%	1,400 ± 79%	1.4 ± 93%	0.9 ± 153%
Massachusetts	2,200 ± 33%	2,500 ± 41%	1,500 ± 28%	1,600 ± 27%	7,900 ± 32%	9,000 ± 29%	1.5 ± 43%	1.5 ± 49%
New Hampshire	3,200 ± 34%	4,000 ± 52%	1,800 ± 41%	2,400 ± 35%	8,000 ± 31%	11,400 ± 44%	1.8 ± 54%	1.7 ± 62%
New Jersey	1,400 ± 66%	2,600 ± 105%	1,100 ± 78%	900 ± 59%	2,700 ± 63%	5,900 ± 83%	1.3 ± 102%	2.9 ± 120%
New York	6,500 ± 60%	5,600 ± 56%	2,800 ± 42%	3,200 ± 34%	16,900 ± 56%	16,400 ± 39%	2.3 ± 73%	1.8 ± 66%
North Carolina	3,400 ± 196%	13,000 ± 99%	2,300 ± 176%	6,400 ± 84%	14,500 ± 169%	31,400 ± 107%	1.5 ± 263%	2.0 ± 129%
Pennsylvania	2,700 ± 45%	3,500 ± 41%	4,100 ± 44%	4,200 ± 48%	12,000 ± 45%	20,700 ± 60%	0.7 ± 63%	0.8 ± 63%
Rhode Island	200 ± 76%	100 ± 66%	100 ± 88%	300 ± 55%	800 ± 54%	1,300 ± 71%	1.3 ± 116%	0.5 ± 86%
South Carolina	1,300 ± 52%	1,000 ± 67%	200 ± 28%	200 ± 35%	1,200 ± 39%	700 ± 57%	5.5 ± 59%	6.2 ± 76%
Vermont	2,900 ± 45%	2,000 ± 35%	1,200 ± 46%	1,100 ± 42%	5,200 ± 42%	4,100 ± 34%	2.3 ± 64%	1.9 ± 55%
Virginia	1,500 ± 64%	3,900 ± 66%	800 ± 125%	2,400 ± 67%	3,300 ± 99%	7,700 ± 80%	1.8 ± 141%	1.6 ± 93%
West Virginia	400 ± 54%	600 ± 61%	300 ± 72%	200 ± 81%	700 ± 46%	600 ± 40%	1.3 ± 90%	2.5 ± 102%
Eastern Region Total	35,300 ± 25%	51,100 ± 28%	25,400	32,900	101,200 ± 29%	142,800 ± 27%		
Alabama	1,000 ± 186%	300 ± 113%	100 ± 133%	100 ± 106%	300 ± 175%	200 ± 128%	15.5 ± 229%	4.0 ± 155%
Arkansas	6,800 ± 181%	0	7,000 ± 130%	1,400 ± 196%	14,400 ± 115%	8,300 ± 196%	1.0 ± 223%	0
Illinois	3,400 ± 195%	100 ± 194%	2,300 ± 136%	1,800 ± 188%	11,300 ± 160%	5,400 ± 193%	1.5 ± 237%	< 0.1 ± 269%
Indiana	400 ± 56%	1,000 ± 94%	500 ± 112%	1,100 ± 77%	1,100 ± 85%	3,200 ± 97%	0.8 ± 126%	0.9 ± 122%
Iowa	1,600 ± 151%	200 ± 84%	600 ± 105%	100 ± 58%	4,500 ± 112%	400 ± 79%	2.7 ± 184%	2.5 ± 102%
Kansas	0	<50 ± 153%	0	<50 ± 80%	0	100 ± 90%	0	1.5 ± 173%
Kentucky	100 ± 162%	200 ± 75%	100 ± 49%	1,200 ± 187%	200 ± 59%	1,500 ± 153%	0.8 ± 169%	0.2 ± 201%
Louisiana	1,500 ± 151%	4,700 ± 98%	1,300 ± 168%	2,900 ± 87%	6,000 ± 181%	7,400 ± 80%	1.2 ± 226%	1.6 ± 131%
Michigan	64,500 ± 46%	37,400 ± 29%	19,100 ± 24%	18,500 ± 22%	86,100 ± 29%	82,900 ± 24%	3.4 ± 52%	2.0 ± 37%
Minnesota	20,800 ± 42%	25,000 ± 37%	8,700 ± 43%	12,000 ± 35%	29,300 ± 38%	49,700 ± 38%	2.4 ± 60%	2.1 ± 51%
Mississippi	100 ± 106%	1,800 ± 105%	100 ± 90%	1,600 ± 132%	300 ± 93%	2,600 ± 103%	0.8 ± 139%	1.1 ± 169%

^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 16 (continued). Preliminary estimates of American woodcock harvest and hunter activity during the 2019 and 2020 hunting seasons.^a

	Woodcock Harvest		Active Woodcock Hunters ^b		Woodcock Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Missouri	300 ± 74%	200 ± 75%	100 ± 44%	800 ± 171%	800 ± 59%	2,600 ± 164%	2.3 ± 86%	0.2 ± 187%
Nebraska	0	0	0	0	0	0	0	0
Ohio	700 ± 95%	2,900 ± 87%	1,100 ± 154%	2,000 ± 80%	2,400 ± 84%	5,200 ± 81%	0.7 ± 181%	1.5 ± 118%
Oklahoma	300 ± 168%	200 ± 156%	100 ± 80%	1,000 ± 184%	400 ± 101%	2,900 ± 189%	3.4 ± 186%	0.2 ± 241%
Tennessee	5,000 ± 187%	<50 ± 193%	1,600 ± 192%	<50 ± 193%	11,300 ± 194%	100 ± 193%	3.1 ± 268%	1.0 ± 273%
Texas	2,800 ± 115%	400 ± 104%	300 ± 92%	5,300 ± 190%	1,300 ± 115%	5,700 ± 177%	10.7 ± 148%	< 0.1 ± 217%
Wisconsin	26,800 ± 39%	49,300 ± 43%	9,500 ± 35%	17,200 ± 28%	47,000 ± 39%	82,300 ± 35%	2.8 ± 52%	2.9 ± 51%
Central Region Total	136,000 ± 27%	123,700 ± 21%	52,600	67,100	216,600 ± 22%	260,600 ± 18%		
United States Total	171,300 ± 22%	174,800 ± 17%	78,000	100,000	317,800 ± 18%	403,500 ± 15%		

^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 17. Preliminary estimates of snipe harvest and hunter activity during the 2019 and 2020 hunting seasons. ^a

	Snipe Harvest		Active Snipe Hunters ^b		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Connecticut	100 ± 167%	100 ± 176%	100 ± 133%	100 ± 134%	300 ± 135%	300 ± 136%	0.6 ± 213%	0.5 ± 222%
Delaware	0	0	0	0	0	0	0	0
Florida	48,000 ± 102%	37,100 ± 96%	3,700 ± 77%	2,800 ± 72%	12,500 ± 95%	9,600 ± 89%	13.1 ± 128%	13.5 ± 120%
Georgia	500 ± 194%	500 ± 194%	100 ± 135%	100 ± 135%	500 ± 178%	500 ± 178%	6.0 ± 236%	6.0 ± 236%
Maine	0	0	500 ± 186%	500 ± 187%	1,500 ± 186%	1,600 ± 187%	0	0
Maryland	<50 ± 191%	<50 ± 188%	<50 ± 191%	<50 ± 188%	<50 ± 191%	<50 ± 188%	1.0 ± 270%	1.0 ± 267%
Massachusetts	<50 ± 163%	<50 ± 166%	100 ± 172%	100 ± 172%	100 ± 172%	100 ± 172%	0.1 ± 237%	0.1 ± 239%
New Hampshire	100 ± 153%	100 ± 159%	200 ± 130%	200 ± 131%	400 ± 137%	500 ± 140%	0.6 ± 201%	0.6 ± 206%
New Jersey	0	0	0	0	0	0	0	0
New York	100 ± 193%	<50 ± 175%	100 ± 135%	<50 ± 123%	100 ± 138%	<50 ± 126%	1.5 ± 235%	1.5 ± 214%
North Carolina	0	0	0	0	0	0	0	0
Pennsylvania	0	0	<50 ± 191%	<50 ± 191%	100 ± 191%	100 ± 191%	0	0
Rhode Island	<50 ± 176%	<50 ± 183%	<50 ± 176%	<50 ± 183%	0	0	4.0 ± 249%	4.0 ± 258%
South Carolina	1,500 ± 168%	1,700 ± 172%	1,300 ± 134%	1,500 ± 135%	2,000 ± 141%	2,200 ± 141%	1.1 ± 215%	1.1 ± 218%
Vermont	<50 ± 186%	<50 ± 187%	<50 ± 186%	<50 ± 187%	<50 ± 186%	<50 ± 187%	1.0 ± 263%	1.0 ± 264%
Virginia	0	0	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0	0	0
Atlantic Flyway Total	50,300 ± 98%	39,500 ± 91%	6,000	5,300	17,600 ± 72%	15,000 ± 64%		
Alabama	0	0	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0	0	0
Illinois	0	0	0	0	0	0	0	0
Indiana	100 ± 73%	100 ± 77%	600 ± 178%	600 ± 172%	1,800 ± 166%	2,000 ± 157%	0.1 ± 192%	0.2 ± 188%
Iowa	4,700 ± 110%	1,000 ± 109%	900 ± 100%	200 ± 99%	2,000 ± 111%	400 ± 110%	5.3 ± 148%	5.3 ± 147%
Kentucky	0	0	0	0	0	0	0	0
Louisiana	13,300 ± 147%	10,900 ± 127%	1,200 ± 119%	800 ± 91%	3,900 ± 119%	3,300 ± 109%	10.7 ± 189%	14.1 ± 157%
Michigan	3,100 ± 157%	19,200 ± 187%	1,400 ± 168%	5,700 ± 124%	7,700 ± 183%	15,900 ± 135%	2.2 ± 230%	3.4 ± 224%
Minnesota	700 ± 196%	700 ± 196%	700 ± 196%	700 ± 196%	2,800 ± 196%	3,000 ± 196%	1.0 ± 277%	1.0 ± 277%
Mississippi	0	0	100 ± 195%	100 ± 195%	1,300 ± 195%	1,200 ± 195%	0	0
Missouri	2,000 ± 142%	1,900 ± 142%	700 ± 175%	700 ± 175%	1,300 ± 138%	1,200 ± 138%	2.9 ± 226%	2.9 ± 225%

^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 2019 and 2020 hunting seasons. ^a

	Snipe Harvest		Active Snipe Hunters ^b		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Ohio	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	7,300 ± 168%	8,000 ± 168%	4,300 ± 93%	4,700 ± 93%	8,500 ± 110%	9,400 ± 110%	1.7 ± 192%	1.7 ± 192%
Mississippi Flyway To	31,200 ± 78%	41,900 ± 98%	9,900	13,500	29,400 ± 65%	36,400 ± 69%		
Colorado	800 ± 195%	800 ± 195%	200 ± 134%	200 ± 134%	1,100 ± 177%	1,000 ± 177%	4.0 ± 237%	4.0 ± 237%
Kansas	0	0	400 ± 196%	1,000 ± 196%	400 ± 196%	1,000 ± 196%	0	0
Nebraska	1,000 ± 122%	1,000 ± 122%	500 ± 155%	500 ± 156%	700 ± 122%	800 ± 122%	1.9 ± 198%	1.9 ± 198%
New Mexico	<50 ± 125%	<50 ± 129%	<50 ± 100%	<50 ± 103%	<50 ± 115%	<50 ± 118%	1.7 ± 160%	1.7 ± 165%
North Dakota	500 ± 169%	600 ± 172%	500 ± 181%	600 ± 183%	600 ± 161%	700 ± 164%	1.1 ± 248%	1.1 ± 251%
Oklahoma	<50 ± 191%	<50 ± 192%	<50 ± 135%	<50 ± 135%	100 ± 143%	100 ± 143%	0.5 ± 234%	0.5 ± 235%
South Dakota	<50 ± 170%	<50 ± 175%	<50 ± 97%	<50 ± 100%	100 ± 116%	100 ± 119%	1.7 ± 196%	1.7 ± 201%
Texas	3,700 ± 149%	3,800 ± 152%	2,900 ± 185%	3,000 ± 186%	14,000 ± 189%	14,900 ± 190%	1.3 ± 238%	1.3 ± 240%
Wyoming	200 ± 78%	300 ± 80%	100 ± 41%	100 ± 42%	200 ± 62%	200 ± 64%	3.9 ± 88%	3.9 ± 91%
Central Flyway Total	6,200 ± 94%	6,600 ± 94%	4,600	5,500	17,100 ± 155%	18,800 ± 151%		
Arizona	0	0	<50 ± 191%	<50 ± 191%	<50 ± 191%	<50 ± 191%	0	0
California	3,500 ± 66%	3,400 ± 66%	300 ± 35%	300 ± 35%	1,400 ± 63%	1,400 ± 63%	10.8 ± 74%	10.8 ± 74%
Idaho	0	0	0	0	0	0	0	0
Montana	100 ± 166%	200 ± 170%	<50 ± 130%	<50 ± 134%	100 ± 153%	100 ± 156%	4.5 ± 211%	4.5 ± 216%
Nevada	300 ± 195%	100 ± 194%	200 ± 138%	100 ± 137%	1,500 ± 142%	700 ± 141%	1.5 ± 239%	1.5 ± 237%
Oregon	200 ± 193%	200 ± 194%	100 ± 134%	100 ± 134%	1,400 ± 175%	1,700 ± 175%	3.0 ± 235%	3.0 ± 235%
Utah	500 ± 194%	500 ± 194%	100 ± 135%	100 ± 135%	200 ± 143%	200 ± 143%	4.0 ± 237%	4.0 ± 237%
Washington	400 ± 84%	500 ± 85%	100 ± 39%	200 ± 40%	600 ± 60%	700 ± 60%	3.0 ± 93%	3.0 ± 94%
Pacific Flyway Total	5,000 ± 52%	5,000 ± 52%	900	800	5,200 ± 66%	4,800 ± 70%		
Alaska	0	0	0	0	0	0	0	0
United States Total	92,700 ± 60%	93,000 ± 59%	21,300	25,100	69,400 ± 51%	75,100 ± 52%		

^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 2019 and 2020 hunting seasons. ^a

	Coot Harvest		Active Coot Hunters ^b		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Connecticut	100 ± 188%	100 ± 191%	<50 ± 183%	100 ± 188%	700 ± 192%	700 ± 193%	1.9 ± 263%	2.0 ± 268%
Delaware	100 ± 182%	200 ± 186%	100 ± 182%	100 ± 186%	100 ± 182%	100 ± 186%	2.0 ± 258%	2.0 ± 263%
Florida	3,400 ± 155%	2,700 ± 159%	1,000 ± 159%	700 ± 154%	2,300 ± 116%	1,900 ± 116%	3.3 ± 222%	3.7 ± 221%
Georgia	1,400 ± 194%	1,400 ± 194%	<50 ± 194%	<50 ± 194%	800 ± 194%	800 ± 194%	35.0 ± 274%	35.0 ± 274%
Maine	0	0	0	0	0	0	0	0
Maryland	<50 ± 191%	<50 ± 188%	<50 ± 191%	<50 ± 188%	<50 ± 191%	<50 ± 188%	2.0 ± 270%	2.0 ± 267%
Massachusetts	400 ± 178%	400 ± 178%	100 ± 182%	100 ± 182%	100 ± 149%	100 ± 149%	7.2 ± 254%	7.2 ± 255%
New Hampshire	0	0	0	0	0	0	0	0
New Jersey	2,400 ± 137%	4,900 ± 140%	<50 ± 105%	100 ± 108%	200 ± 136%	400 ± 140%	73.7 ± 173%	73.7 ± 177%
New York	100 ± 193%	<50 ± 175%	<50 ± 193%	<50 ± 175%	100 ± 193%	<50 ± 175%	5.0 ± 272%	5.0 ± 248%
North Carolina	1,400 ± 196%	1,400 ± 196%	1,400 ± 196%	1,400 ± 196%	1,400 ± 196%	1,400 ± 196%	1.0 ± 277%	1.0 ± 277%
Pennsylvania	<50 ± 191%	<50 ± 191%	<50 ± 191%	<50 ± 191%	<50 ± 191%	<50 ± 191%	1.0 ± 270%	1.0 ± 270%
Rhode Island	100 ± 140%	100 ± 146%	<50 ± 115%	<50 ± 120%	<50 ± 165%	<50 ± 171%	5.0 ± 182%	5.0 ± 188%
South Carolina	2,100 ± 183%	2,300 ± 185%	1,300 ± 134%	1,500 ± 135%	2,000 ± 138%	2,300 ± 139%	1.6 ± 227%	1.6 ± 229%
Vermont	<50 ± 186%	<50 ± 187%	<50 ± 186%	<50 ± 187%	<50 ± 186%	<50 ± 187%	2.0 ± 263%	2.0 ± 264%
Virginia	200 ± 187%	200 ± 188%	200 ± 173%	200 ± 174%	300 ± 149%	300 ± 150%	0.9 ± 255%	0.9 ± 256%
West Virginia	300 ± 192%	300 ± 192%	<50 ± 192%	<50 ± 192%	<50 ± 192%	<50 ± 192%	12.0 ± 272%	12.0 ± 272%
Atlantic Flyway Total	12,100 ± 68%	14,200 ± 71%	4,300	4,300	8,000 ± 65%	8,100 ± 65%		
Alabama	29,300 ± 168%	31,300 ± 169%	2,600 ± 134%	2,800 ± 134%	6,500 ± 155%	7,000 ± 155%	11.4 ± 215%	11.4 ± 216%
Arkansas	0	0	0	0	0	0	0	0
Illinois	0	0	0	0	0	0	0	0
Indiana	100 ± 68%	200 ± 71%	<50 ± 47%	100 ± 49%	200 ± 71%	300 ± 74%	2.6 ± 82%	2.6 ± 86%
Iowa	9,200 ± 129%	2,800 ± 113%	1,400 ± 85%	600 ± 93%	6,700 ± 131%	1,900 ± 109%	6.5 ± 154%	4.6 ± 146%
Kentucky	0	0	0	0	0	0	0	0
Louisiana	110,800 ± 138%	51,900 ± 122%	3,600 ± 70%	2,100 ± 56%	14,000 ± 108%	9,200 ± 80%	30.9 ± 155%	24.8 ± 134%
Michigan	2,400 ± 196%	1,000 ± 196%	2,500 ± 133%	3,600 ± 148%	18,100 ± 182%	9,700 ± 144%	1.0 ± 237%	0.3 ± 246%
Minnesota	700 ± 196%	700 ± 196%	700 ± 196%	700 ± 196%	700 ± 196%	700 ± 196%	1.0 ± 277%	1.0 ± 277%
Mississippi	1,500 ± 138%	1,800 ± 143%	1,100 ± 154%	1,300 ± 166%	7,600 ± 133%	9,200 ± 148%	1.5 ± 207%	1.3 ± 219%
Missouri	0	0	0	0	0	0	0	0

^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 2019 and 2020 hunting seasons.^a

	Coot Harvest		Active Coot Hunters ^b		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Ohio	0	0	0	0	0	0	0	0
Tennessee	0	0	2,500 ± 196%	2,800 ± 196%	22,100 ± 196%	25,500 ± 196%	0	0
Wisconsin	7,200 ± 195%	8,000 ± 195%	1,100 ± 177%	1,300 ± 177%	2,300 ± 177%	2,500 ± 177%	6.3 ± 263%	6.3 ± 263%
Mississippi Flyway Total	61,300 ± 100%	97,600 ± 86%	15,500	15,200	78,200 ± 76%	66,100 ± 84%		
Colorado	300 ± 196%	300 ± 196%	400 ± 153%	400 ± 153%	1,200 ± 158%	1,200 ± 158%	0.7 ± 249%	0.7 ± 249%
Kansas	2,000 ± 196%	0	500 ± 196%	0	500 ± 196%	0	4.0 ± 277%	0
Nebraska	0	0	0	0	0	0	0	0
New Mexico	<50 ± 174%	<50 ± 179%	<50 ± 100%	<50 ± 103%	100 ± 145%	200 ± 149%	1.0 ± 201%	1.0 ± 206%
North Dakota	4,500 ± 183%	5,300 ± 185%	500 ± 168%	600 ± 171%	1,300 ± 143%	1,500 ± 148%	8.2 ± 248%	8.3 ± 251%
Oklahoma	2,000 ± 141%	2,400 ± 148%	600 ± 124%	700 ± 133%	4,700 ± 179%	5,900 ± 182%	3.5 ± 188%	3.6 ± 199%
South Dakota	100 ± 108%	100 ± 111%	<50 ± 74%	<50 ± 76%	100 ± 103%	100 ± 106%	5.4 ± 131%	5.4 ± 134%
Texas	37,800 ± 196%	40,300 ± 196%	2,700 ± 196%	2,900 ± 196%	2,700 ± 196%	2,900 ± 196%	14.0 ± 277%	14.0 ± 277%
Wyoming	100 ± 81%	100 ± 84%	100 ± 143%	100 ± 138%	100 ± 120%	200 ± 116%	0.8 ± 165%	0.8 ± 162%
Central Flyway Total	46,800 ± 160%	48,600 ± 164%	4,800	4,700	10,800 ± 96%	11,900 ± 105%		
Arizona	0	0	<50 ± 191%	<50 ± 191%	<50 ± 191%	<50 ± 191%	0	0
California	6,200 ± 84%	6,100 ± 84%	900 ± 101%	900 ± 105%	2,500 ± 75%	2,500 ± 78%	7.1 ± 131%	6.9 ± 134%
Idaho	0	0	0	0	0	0	0	0
Montana	100 ± 146%	100 ± 150%	<50 ± 106%	100 ± 108%	100 ± 114%	100 ± 117%	2.7 ± 180%	2.7 ± 185%
Nevada	3,000 ± 121%	1,400 ± 118%	200 ± 110%	100 ± 109%	400 ± 91%	200 ± 90%	12.1 ± 164%	12.3 ± 160%
Oregon	800 ± 196%	900 ± 196%	400 ± 196%	400 ± 196%	400 ± 196%	400 ± 196%	2.0 ± 277%	2.0 ± 277%
Utah	11,000 ± 129%	12,400 ± 129%	1,400 ± 64%	1,600 ± 64%	8,400 ± 97%	9,400 ± 97%	7.9 ± 144%	7.9 ± 144%
Washington	1,300 ± 87%	1,400 ± 88%	200 ± 36%	200 ± 36%	700 ± 58%	700 ± 59%	7.4 ± 95%	7.4 ± 95%
Pacific Flyway Total	22,300 ± 70%	22,300 ± 76%	3,100	3,300	12,500 ± 68%	13,400 ± 70%		
United States Total	242,600 ± 74%	182,700 ± 64%	27,800	27,500	109,500 ± 56%	99,500 ± 58%		

^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 2019 and 2020 hunting seasons. ^a

	Gallinule Harvest		Active Gallinule Hunters ^b		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Delaware	0	0	0	0	0	0	0	0
Florida	7,900 ± 185%	200 ± 194%	900 ± 172%	<50 ± 194%	9,300 ± 189%	<50 ± 194%	9.2 ± 253%	5.0 ± 274%
Georgia	0	1,300 ± 196%	0	1,300 ± 196%	0	1,300 ± 196%	0	1.0 ± 277%
New Jersey	700 ± 183%	0	<50 ± 183%	0	100 ± 183%	0	95.0 ± 259%	0
New York	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0
Virginia	0	0	0	<50 ± 177%	0	<50 ± 177%	0	0
West Virginia	0	0	0	0	0	0	0	0
Atlantic Flyway Total	8,700 ± 170%	1,500 ± 168%	900	1,400	9,900 ± 179%	1,400 ± 188%		
Alabama	0	0	0	1,200 ± 196%	0	3,600 ± 196%	0	0
Arkansas	0	0	0	1,700 ± 196%	0	1,700 ± 196%	0	0
Kentucky	0	0	0	<50 ± 193%	0	100 ± 193%	0	0
Louisiana	10,900 ± 126%	4,400 ± 126%	1,200 ± 116%	300 ± 92%	3,300 ± 91%	1,000 ± 107%	8.9 ± 172%	15.0 ± 156%
Michigan	0	0	0	0	0	0	0	0
Minnesota	0	0	0	900 ± 155%	0	1,900 ± 136%	0	0
Mississippi	0	0	0	0	0	0	0	0
Ohio	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	100 ± 193%	0	<50 ± 193%	0	100 ± 193%	0	2.0 ± 273%	0
Mississippi Flyway Total	11,000 ± 126%	4,400 ± 126%	1,300	4,100	3,300 ± 89%	8,200 ± 100%		
New Mexico	0	0	0	0	0	0	0	0
Oklahoma	0	100 ± 153%	0	100 ± 84%	0	200 ± 89%	0	1.8 ± 175%
Texas	0	<50 ± 194%	0	<50 ± 194%	0	<50 ± 194%	0	1.0 ± 274%
Central Flyway Total	0	200 ± 125%	0	100	0	200 ± 81%		

^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 2019 and 2020 hunting seasons.^a

	Gallinule Harvest		Active Gallinule Hunters ^b		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Arizona	0	0	0	<50 ± 190%	0	100 ± 190%	0	0
California	0	1,000 ± 113%	0	1,000 ± 112%	0	1,400 ± 116%	0	1.0 ± 159%
Nevada	0	0	0	100 ± 194%	0	100 ± 194%	0	0
Pacific Flyway Total	0	1,000 ± 113%	0	1,100	0	1,600 ± 103%		
United States Total	19,700 ± 103%	7,100 ± 88%	2,200	6,600	13,200 ± 135%	11,400 ± 77%		

^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 2019 and 2020 hunting seasons.^a

	Rail Harvest		Active Rail Hunters ^b		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Connecticut	<50 ± 150%	1,000 ± 184%	<50 ± 150%	100 ± 169%	<50 ± 150%	100 ± 134%	2.0 ± 211%	18.3 ± 250%
Delaware	0	0	0	0	0	0	0	0
Florida	2,200 ± 149%	0	200 ± 108%	0	800 ± 135%	0	13.7 ± 184%	0
Georgia	2,100 ± 111%	2,100 ± 157%	100 ± 90%	100 ± 133%	200 ± 121%	100 ± 157%	27.0 ± 143%	37.5 ± 206%
Maine	400 ± 171%	100 ± 193%	100 ± 136%	<50 ± 193%	200 ± 140%	100 ± 193%	8.5 ± 218%	2.0 ± 273%
Maryland	<50 ± 190%	0	<50 ± 190%	0	<50 ± 190%	0	2.0 ± 269%	0
Massachusetts	<50 ± 156%	300 ± 190%	<50 ± 109%	300 ± 76%	<50 ± 135%	700 ± 87%	2.5 ± 190%	0.8 ± 205%
New Jersey	4,900 ± 81%	3,200 ± 95%	200 ± 97%	300 ± 78%	400 ± 66%	600 ± 104%	25.2 ± 126%	12.3 ± 123%
New York	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0
South Carolina	5,900 ± 150%	17,600 ± 105%	800 ± 153%	1,500 ± 124%	1,600 ± 157%	1,600 ± 111%	7.4 ± 215%	12.1 ± 163%
Virginia	2,900 ± 61%	6,100 ± 128%	100 ± 45%	300 ± 127%	200 ± 55%	700 ± 122%	30.8 ± 76%	18.1 ± 180%
West Virginia	0	300 ± 192%	0	100 ± 136%	0	400 ± 158%	0	6.0 ± 235%
Atlantic Flyway Total	18,500 ± 58%	30,600 ± 67%	1,400	2,600	3,500 ± 77%	4,400 ± 53%		
Alabama	0	0	0	0	0	0	0	0
Arkansas	0	0	0	1,700 ± 196%	0	1,700 ± 196%	0	0
Illinois	0	0	0	0	0	0	0	0
Indiana	<50 ± 100%	<50 ± 132%	<50 ± 64%	<50 ± 70%	100 ± 92%	100 ± 75%	1.0 ± 118%	0.8 ± 149%
Iowa	4,500 ± 132%	100 ± 155%	800 ± 109%	1,400 ± 110%	2,100 ± 118%	2,300 ± 113%	5.6 ± 171%	< 0.1 ± 190%
Kentucky	0	0	0	0	0	0	0	0
Louisiana	600 ± 166%	0	600 ± 179%	0	1,200 ± 139%	0	1.1 ± 244%	0
Michigan	0	0	0	0	0	0	0	0
Minnesota	0	0	0	200 ± 137%	0	1,300 ± 180%	0	0
Mississippi	0	0	0	0	0	0	0	0

^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 20 (continued). Preliminary estimates of rail harvest and hunter activity during the 2019 and 2020 hunting seasons.^a

	Rail Harvest		Active Rail Hunters ^b		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2019	2020	2019	2020	2019	2020	2019	2020
Missouri	700 ± 194%	0	100 ± 194%	0	400 ± 194%	0	12.0 ± 275%	0
Ohio	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	200 ± 193%	0	1,000 ± 189%	0	1,100 ± 173%	0	0.2 ± 270%	0
Mississippi Flyway Total	6,100 ± 102%	100 ± 123%	2,400	3,300	4,900 ± 74%	5,300 ± 90%		
Colorado	100 ± 194%	0	100 ± 194%	0	500 ± 194%	0	1.0 ± 275%	0
Kansas	0	0	400 ± 196%	0	400 ± 196%	0	0	0
Nebraska	100 ± 194%	2,300 ± 196%	100 ± 194%	500 ± 196%	200 ± 194%	1,800 ± 196%	1.0 ± 275%	5.0 ± 277%
New Mexico	0	<50 ± 183%	0	<50 ± 183%	0	<50 ± 183%	0	6.0 ± 259%
Oklahoma	0	200 ± 173%	0	100 ± 67%	0	300 ± 74%	0	1.4 ± 185%
Texas	5,100 ± 196%	<50 ± 194%	2,600 ± 196%	<50 ± 194%	12,900 ± 196%	<50 ± 194%	2.0 ± 277%	1.0 ± 274%
Wyoming	0	0	0	<50 ± 173%	0	<50 ± 173%	0	0
Central Flyway Total	5,200 ± 192%	2,500 ± 177%	3,100	600	13,900 ± 181%	2,200 ± 160%		
United States Total	29,800 ± 53%	33,200 ± 64%	6,900	6,400	22,400 ± 115%	11,900 ± 54%		

^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 2019 and 2020 hunting seasons. Species-specific estimates were derived from 5-year running averages of species composition estimates from the Migratory Bird Wing Collection Survey.

Flyway	Sora		Virginia		Clapper		King	
	2019	2020	2019	2020	2019	2020	2019	2020
Atlantic	1,200	1,800	200	300	17,200	28,500	0	0
Mississippi	6,000	100	<50	<50	100	<50	0	0
Central	4,300	2,100	1,000	400	0	0	0	0
U.S. Total	11,400	3,900	1,200	800	17,200	28,500	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
Johnathon O'dell, Arizona Game and Fish Department
Susan Porter, Arkansas Game and Fish Commission
Tony Straw and Glenn Underwood, California Department of Fish and Game
Ed Gorman, Colorado Parks and Wildlife
Min Huang, Connecticut Department of Environmental Protection
Joseph Rogerson, Delaware Department of Natural Resources and Environmental Control
Andrew Fanning, Florida Fish and Wildlife Conservation Commission
Michael Spencer, Georgia Department of Natural Resources
Tara Reichert, Idaho Department of Fish and Game
Randy Smith and Darren Lawary, Illinois Department of Natural Resources
Karl Eliason, Indiana Department of Natural Resources
Orrin Jones, Iowa Department of Natural Resources
Mary Becker, Kansas Department of Wildlife, Parks, and Tourism
John Brunjes, Kentucky Department of Fish and Wildlife Resources
Michelle Rayburn, Louisiana Department of Wildlife and Fisheries
Bill Swan, Maine Department of Inland Fisheries and Wildlife
Bill Harvey, Maryland Department of Natural Resources
Rick Kennedy, Massachusetts Division of Fisheries and Wildlife
Kristen Kosloski and Barbar Avers, Michigan Department of Natural Resources
Margaret Dexter, Minnesota Department of Natural Resources
Ursula Claxton, Mississippi Department of Wildlife, Fisheries and Parks
Julie Fleming, Missouri Department of Conservation
Neal Whitney, Montana Fish, Wildlife and Parks
Leslie Hershberger and Matthew Garrick, Nebraska Game and Parks Commission
Kimberly Munoz and Russell Woolstenhulme, Nevada Department of Wildlife
Susan Perry, New Hampshire Fish and Game Department
Barbara Stoff, New Jersey Division of Fish and Wildlife
Mason Cline, New Mexico Department of Game and Fish
Joshua Stiller, New York Department of Environmental Conservation
Doug Howell, North Carolina Wildlife Resources Commission
Chad Parent, North Dakota Game and Fish Department
Andrew Burt, Ohio Department of Natural Resources
Mike Chrisman and James Morel, Oklahoma Department of Wildlife Conservation
Brandon Reishus, Oregon Department of Fish and Wildlife
Ian Gregg and Tammy Klinger, Pennsylvania Game Commission
Jenny Kilburn, Rhode Island Division of Fish and Wildlife
Julie Jarrett and Billy Dukes, South Carolina Department of Natural Resources
Corey Huxoll, South Dakota Game, Fish, and Parks
Jamie Feddersen, Tennessee Wildlife Resources Agency
Kevin Kraii, Texas Parks and Wildlife Department
Heather Bernales, Utah Division of Wildlife Resources

Jeff Kahn and David Sausville, Vermont Fish and Wildlife Department
Doreen Richmond and Gary Costanzo, Virginia Department of Game and Inland Fisheries
Treg Christopher, Paul Whelan and Kyle Spragens, Washington Department of Fish and Wildlife
Michael Peters, West Virginia Division of Natural Resources
Jessica Rees Lohr, Wisconsin Department of Natural Resources
Noelle Smith, Wyoming Game and Fish Department

Appendix B. Names and affiliations of waterfowl wingbee participants.

Atlantic Flyway Wingbee

P. Bosco, U.S. Fish and Wildlife Service (retired); S. Catino, U.S. Fish and Wildlife Service - DMBM/BMDM; E. Holmes, U.S. Fish and Wildlife Service; P. Padding, U.S. Fish and Wildlife Service (retired).

Mississippi Flyway Wingbee

J. Berdeen, Minnesota Department of Natural Resources; J. Berry, Louisiana Department of Wildlife and Fisheries; T. Bumgardner, U.S. Fish and Wildlife Service; J. Chiu, U.S. Fish and Wildlife Service; B. Davis, Minnesota Department of Natural Resources; T. Detras, U.S. Fish and Wildlife Service; A. Dunstan, U.S. Fish and Wildlife Service; H. Edmundson, U.S. Fish and Wildlife Service; M. Fitzpatrick, Minnesota Department of Natural Resources; A. Floyd, U.S. Fish and Wildlife Service; J. Grant, Louisiana Department of Wildlife and Fisheries; T. Hackemack, U.S. Fish and Wildlife Service; G. Hanks, U.S. Fish and Wildlife Service; J. Hanks, Louisiana Department of Wildlife and Fisheries; B. Kennon, Louisiana Department of Wildlife and Fisheries; B. Lausch, U.S. Fish and Wildlife Service; C. McCarty, Minnesota Department of Natural Resources; M. McGee, Louisiana Department of Wildlife and Fisheries; W. Moody, U.S. Fish and Wildlife Service; P. Pritchett, Louisiana Department of Wildlife and Fisheries; D. Rave, Minnesota Department of Natural Resources; B. Rosamond, U.S. Fish and Wildlife Service; J. Samuelson, U.S. Fish and Wildlife Service; B. Sokul, Volunteer; H. Sokul, Volunteer; A. Sprunger, U.S. Fish and Wildlife Service; E. Stinson, U.S. Fish and Wildlife Service; D. Stone, U.S. Fish and Wildlife Service; B. Sullivan, U.S. Fish and Wildlife Service; R. Vinson, U.S. Fish and Wildlife Service; E. Zlonis, Minnesota Department of Natural Resources.

Central Flyway Wingbee

M. Adams, U.S. Fish and Wildlife Service; D. Altman, University of Nebraska; A. Anderson, U.S. Fish and Wildlife Service; C. Bahnson, North Dakota Game and Fish Department; A. Beard, Nebraska Game and Parks Commission; J. Bushaw, Nebraska Game and Parks Commission; D. Butler, Texas Parks and Wildlife Department; C. Cain, U.S. Fish and Wildlife Service - DMBM/BMDM; S. Catino, U.S. Fish and Wildlife Service - DMBM/BMDM; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BMDM; A. Dinges, North Dakota Game and Fish Department; R. Fern, Texas Parks and Wildlife Department; O. Fitzsimmons, Texas Parks and Wildlife Department; J. Gammonley, Colorado Parks and Wildlife; F. Gammonley, Volunteer; R. Gross, North Dakota Game and Fish Department; M. Grovijahn, South Dakota Game, Fish, and Parks; S. Harryman, Texas Parks and Wildlife Department; J. Hoskins, Texas Parks and Wildlife Department; B. Johnson, Texas Parks and Wildlife Department; K. Karcher, University of Nebraska; K. Kraai, Texas Parks and Wildlife Department; B. Kraai, Volunteer; T. Liddick, U.S. Fish and Wildlife Service - DMBM/MBSB; S. McDowell, Texas Parks and Wildlife Department; J. McLaughlin, Texas Parks and Wildlife Department; T. Montandon, Texas Parks and Wildlife Department; R. Murano, South Dakota Game, Fish, and Parks; J. Nichols, U. S. Fish and Wildlife Service; K. Point, U.S. Fish and Wildlife Service - DMBM/BMDM; M. Register, University of Nebraska; B. Simpson, Texas Parks and Wildlife Department; R. Stutheit, Nebraska Game and Parks Commission; M. Szymanski, North Dakota Game and Fish Department; P. Thorpe, U.S. Fish and Wildlife Service - DMBM/MBSB; M. Vrtiska, University of Nebraska; K. Witte, University of Nebraska.

Pacific Flyway Wingbee

C. Cain, U.S. Fish and Wildlife Service - DMBM/BMDM; J. Dooley, U.S. Fish and Wildlife Service - DMBM/PHAB; G. Gerstenberg, California Department of Fish and Wildlife; J. Gerstenberg, volunteer; J. Laughlin, U.S. Department of Agriculture - APHIS/Wildlife Services;

A. Martinez, Oregon Department of Fish and Wildlife; S. Olson, U.S. Fish and Wildlife Service - DMBM/Pacific Flyway; B. Reishus, Oregon Department of Fish and Wildlife; W. Rhodes, U.S. Fish and Wildlife Service - DMBM/MBSB; K. Roth, Oregon Department of Fish and Wildlife; N. Saake, Nevada Department of Wildlife (retired); P. Saake, volunteer; J. Sands, U.S. Fish and Wildlife Service - Region 1; D. Skalos, California Department of Fish and Wildlife and U.S. Geological Survey; L. Sparks, volunteer; D. Speten, Oregon Department of Fish and Wildlife; K. Walton, Oregon Department of Fish and Wildlife.

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August 2021

