



U.S. Fish & Wildlife Service

Migratory Bird Hunting Activity and Harvest during the 2020–21 and 2021–22 Hunting Seasons

August 2022



*Hunter setting decoys
USFWS/Milton Friend*

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Abstract: National surveys of migratory bird hunters were conducted during the 2020 and 2021 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 [*Porphyrio martinicus*]), and rails (king rail [*Rallus elegans*], clapper rail [*R. crepitans*], Virginia rail [*R. limicola*], and sora [*Porzana carolina*]). About 1 million waterfowl hunters harvested 11,139,100 ($\pm 4\%$) ducks and 2,879,800 ($\pm 5\%$) geese in the 2020 season, and about 1 million waterfowl hunters harvested 9,459,400 ($\pm 4\%$) ducks and 2,647,600 ($\pm 5\%$) geese in the 2021 season. Mallard (*Anas platyrhynchos*), green-winged teal (*A. crecca*), wood duck (*Aix sponsa*), blue-winged/cinnamon teal (*Spatula discors* and *S. cyanoptera*), and gadwall (*Mareca strepera*) 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 745,600 hunters harvested 11,704,100 ($\pm 6\%$) mourning doves in 2020 and 642,800 hunters harvested 9,202,100 ($\pm 6\%$) in 2021. Woodcock hunters numbered about 100,000 in 2020 and 94,500 in 2021, and harvested 174,800 ($\pm 17\%$) in 2020, and 214,800 ($\pm 20\%$) in 2021. About 25,100 people hunted snipe in 2020 and 13,200 in 2021, and they harvested 93,000 ($\pm 59\%$) and 47,900 ($\pm 54\%$) snipe in 2020 and 2021, respectively. Coot hunters (about 27,500 in 2020 and 22,000 in 2021) harvested 182,700 ($\pm 64\%$) coots in 2020 and 88,600 ($\pm 42\%$) in 2021. Gallinule hunters (about 6,600 in 2020 and 8,000 in 2021) harvested 7,100 ($\pm 88\%$) in 2020 and 5,700 ($\pm 106\%$) in 2021. Approximately 6,400 rail hunters harvested 33,200 ($\pm 64\%$) rails in 2020 and 13,200 rail hunters harvested 43,700 ($\pm 70\%$) rails in 2021.

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 2020-21 and 2021-22 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 (in the 2021-22 season, due to budget constraints we did not send out the third packet to hunters; response rates were reduced as a result).

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 1963-2021 were reported in “American woodcock population status, 2022” (Seamans and Rau 2022). This survey was expanded in 1997 to include rail wings to determine the species composition of the rail harvest, and band-tailed pigeon wings to obtain age ratio estimates.

Beginning in 2007, the FWS has performed a national Mourning Dove Parts Collection Survey to determine an index of recruitment. Selected hunters were asked to send in a wing from

mourning doves harvested during the first two hunts of the season. Pooled age ratios from 2009-2021 were reported in “Mourning dove population status, 2022” (Seamans 2022).

Survey Results

Waterfowl Hunter Activity and Harvest (Tables 1-7, Figures 1-3). HIP waterfowl harvest survey sample sizes and response rates were 104,225 hunters and 33%, respectively, for 2020-21, and 105,425 hunters and 25% for the 2021-22 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 2020-21 Waterfowl Parts Survey collected 90,693 duck wings and 16,136 goose tails and primary tips from 4,662 hunters; the 2021-22 sample consisted of 75,019 duck wings and 14,017 goose tails and primary wing tips from 4,306 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 43,770 hunters in 2020-21 (40% response rate)

and 43,835 hunters in 2021-22 (24% 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 2020-21 survey had a sample size of 16,838 hunters and a 46% response rate; the 2021-22 survey sample size and response rate were 16,373 hunters and 29%.

Snipe, Coot, Gallinule, and Rail Hunter Activity and Harvest (Tables 17-21). The sample for the 2020-21 snipe, coot, gallinule, and rail harvest survey was 29,835 hunters (41% response rate) and 24,380 hunters (28% response rate) for the 2021-22 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 2020-21 estimates are based on the species composition of 1,483 rail wings collected from 110 hunters during the period 2016-2020, and the 2021-22 estimates are based on 1,356 rail wings collected from 107 hunters during the period 2017-2021.

Alaska Sandhill Crane Hunter Activity and Harvest Estimates. The estimates presented below were derived from surveys of 739 (2020-21, 53% response rate) and 770 (2021-22, 53% response rate) Alaska migratory bird hunters. For Alaska’s 2020 season, we estimated that 818 active sandhill crane hunters spent 2,354 days hunting cranes and harvested 1409 birds. In 2021, an estimated 1,137 active hunters spent 2,902 days hunting cranes and harvested 1,577 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 2020 and 2021 seasons were reported in “Status and harvests of sandhill cranes: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern populations” (Seamans 2022).

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REFERENCES

Atwood, E. L. 1956. Validity of mail survey data on bagged waterfowl. *Journal of Wildlife Management* 20: 1-16.

Cleveland, W. S., and S. J. Devlin. 1988. Locally weighted regression: an approach to regression analysis by local fitting. *Journal of the American Statistical Association* 83: 596-610.

Cochran, W. G. 1977. *Sampling Techniques*. Wiley, New York.

Dillman, D. A. 1978. *Mail and telephone surveys: the Total Design Method*. Wiley & Sons, New York, USA.

Dillman, D. A. 1991. The design and administration of mail surveys. *Annual Review of Sociology* 17: 225-249.

Elden R.C., W.V. Bevill, P.I. Padding, J.E. Frampton, and D.L. Shroufe. 2002. Pages 7-16 *in* J.M. Ver Steeg and R.C. Elden, compilers. *Harvest Information Program: Evaluation and Recommendations*. International Association of Fish and Wildlife Agencies, Migratory Shore and Upland Game Bird Working Group, Ad Hoc Committee on HIP, Washington, D.C.

Seamans, M. E. 2022. Status and harvests of sandhill cranes: Mid-Continent, Rocky Mountain, Lower Colorado River Valley and Eastern Populations. Administrative Report, U.S. Fish and Wildlife Service, Lakewood, Colorado. 16pp.

Seamans, M. E. 2022. Mourning dove population status, 2022. U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C.

Seamans, M. E., and R.D. Rau. 2022. American woodcock population status, 2022. U.S. Fish and Wildlife Service, Laurel, Maryland. 17 pp.

Steele, R.G., and J.H. Torrie. 1980. *Principles and procedures of statistics: a biometrical approach*. McGraw-Hill Book Company, New York, New York. 633 pp.

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Connecticut		Delaware		Florida	
	2020	2021	2020	2021	2020	2021
Mallard	4,758	3,844	10,535	9,071	542	1,371
Domestic Mallard	0	0	282	92	232	748
Black Duck	2,035	1,463	6,020	6,414	0	0
Mallard x Black Hybrid	180	57	188	0	0	0
Mottled Duck	0	0	0	0	9,368	12,585
Gadwall	389	86	2,352	1,374	465	249
Wigeon	150	57	564	458	542	1,620
Green-winged Teal	569	545	8,842	10,079	2,168	9,470
Blue-winged/Cinnamon Teal	30	0	282	183	35,690	50,214
Northern Shoveler	30	0	1,881	2,749	1,471	1,371
Northern Pintail	120	57	2,069	825	929	1,495
Wood Duck	2,155	1,348	3,669	2,382	15,329	18,316
Redhead	0	0	0	92	3,794	4,610
Canvasback	30	0	0	92	232	0
Greater Scaup	479	143	188	183	387	374
Lesser Scaup	60	57	94	275	6,039	6,728
Ring-necked Duck	150	29	94	92	43,354	41,741
Goldeneyes	0	86	0	0	0	125
Bufflehead	569	1,033	94	641	1,548	997
Ruddy Duck	60	0	188	0	2,090	249
Long-tailed Duck	10	576	0	0	77	0
Eiders	187	0	0	0	0	0
Scoters	114	182	1,607	0	0	0
Hooded Merganser	569	172	188	641	1,471	2,492
Other Mergansers	299	172	0	0	542	374
Other Ducks	0	0	94	0	4,258	6,978
Total Duck Harvest	12,900±28%	9,900±32%	39,200±38%	35,600±25%	130,500±16%	162,100±19%
Total Active Duck Hunters ^a	1,800±23%	1,700±28%	4,100±15%	3,500±17%	14,500±21%	15,600±21%
Total Duck Hunter Days Afield ^a	12,200±22%	9,700±31%	24,300±20%	22,800±18%	60,100±13%	83,900±18%
Seasonal Duck Harvest Per Hunter ^a	6.9±36%	5.2±42%	9.1±40%	10.1±31%	9.0±26%	10.4±28%
Goose Species Composition						
Canada Goose	11,180	5,399	11,558	8,547	1,542	0
Snow Goose	0	0	1,149	1,321	0	0
Blue Goose	0	0	0	78	771	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	634	71	293	88	0	0
Other Geese ^d	0	51	0	0	0	0
Total Goose Harvest	11,800±57%	5,500±30%	13,000±29%	10,000±27%	2,300±86%	±108%
Total Active Goose Hunters ^b	1,500±26%	1,200±38%	3,300±17%	2,800±21%	1,300±61%	1,700±69%
Total Goose Hunter Days Afield ^b	10,600±24%	6,800±37%	17,500±24%	13,500±22%	3,000±71%	2,300±81%
Seasonal Goose Harvest Per Hunter ^b	7.6±63%	4.7±48%	3.9±33%	3.6±34%	1.8±106%	4.4±128%
Active Waterfowl Hunters ^c	2,500±20%	2,100±26%	5,200±13%	5,200±14%	14,500±21%	15,600±21%
Sample Sizes						
DuckWings	520	344	406	389	1,686	1,301
GooseTails	303	325	200	129	3	0

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Georgia		Maine		Maryland	
	2020	2021	2020	2021	2020	2021
Mallard	5,268	6,766	10,375	7,634	27,527	28,654
Domestic Mallard	0	0	137	0	324	0
Black Duck	188	0	3,504	4,470	13,763	14,189
Mallard x Black Hybrid	0	0	275	100	324	964
Mottled Duck	0	376	0	0	0	0
Gadwall	0	3,007	69	352	3,400	3,168
Wigeon	0	376	69	151	1,781	2,617
Green-winged Teal	564	5,450	2,130	1,858	6,963	7,164
Blue-winged/Cinnamon Teal	2,446	2,067	618	251	1,943	413
Northern Shoveler	376	188	0	0	810	551
Northern Pintail	188	0	206	151	1,781	1,791
Wood Duck	80,148	102,240	9,757	5,023	14,897	16,807
Redhead	2,258	752	0	0	2,105	3,857
Canvasback	4,704	0	0	0	972	2,204
Greater Scaup	0	0	0	0	5,829	2,755
Lesser Scaup	2,258	564	69	151	6,153	2,480
Ring-necked Duck	12,417	12,592	1,237	452	324	1,791
Goldeneyes	0	0	893	804	972	551
Bufflehead	1,881	188	2,405	2,612	17,488	8,679
Ruddy Duck	1,505	564	69	50	162	827
Long-tailed Duck	0	0	2,380	2,387	5,296	8,318
Eiders	0	0	2,167	212	0	0
Scoters	2,258	0	2,311	1,061	13,611	13,863
Hooded Merganser	3,951	1,691	893	452	648	827
Other Mergansers	0	0	893	502	0	1,653
Other Ducks	564	0	0	0	0	0
Total Duck Harvest	121,000±16%	136,800±14%	40,500±21%	28,700±21%	127,100±15%	124,100±14%
Total Active Duck Hunters ^a	19,900±16%	21,300±17%	4,800±12%	4,800±15%	17,100±8%	16,500±10%
Total Duck Hunter Days Afield ^a	105,700±21%	90,100±15%	26,500±19%	27,500±20%	82,800±13%	80,100±13%
Seasonal Duck Harvest Per Hunter ^a	6.1±23%	6.4±22%	7.1±24%	5.2±26%	6.4±17%	6.2±17%
Goose Species Composition						
Canada Goose	25,483	21,113	14,346	10,133	54,568	52,443
Snow Goose	0	0	0	0	1,551	109
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	485	0	0	0	0	0
Brant	0	0	0	0	303	55
Other Geese ^d	0	0	0	0	0	109
Total Goose Harvest	26,000±34%	21,100±41%	14,300±37%	10,100±36%	56,400±12%	52,700±14%
Total Active Goose Hunters ^b	11,400±21%	7,300±29%	3,200±15%	3,200±20%	16,200±7%	15,900±9%
Total Goose Hunter Days Afield ^b	55,300±32%	27,700±35%	17,200±24%	15,700±31%	81,200±11%	78,800±12%
Seasonal Goose Harvest Per Hunter ^b	2.3±41%	2.9±51%	4.4±40%	3.1±41%	3.5±14%	3.3±16%
Active Waterfowl Hunters ^c	21,300±16%	22,200±17%	6,000±11%	5,800±14%	25,100±6%	25,900±7%
Sample Sizes						
DuckWings	643	728	537	567	751	780
GooseTails	107	114	163	163	399	482

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Massachusetts		New Hampshire		New Jersey	
	2020	2021	2020	2021	2020	2021
Mallard	5,658	3,611	3,026	3,752	6,372	8,335
Domestic Mallard	40	0	0	0	60	136
Black Duck	3,435	2,619	1,157	1,470	5,771	13,959
Mallard x Black Hybrid	81	28	59	0	60	203
Mottled Duck	0	0	0	0	0	0
Gadwall	0	0	0	0	541	1,084
Wigeon	0	28	30	0	301	474
Green-winged Teal	768	1,296	564	254	3,427	7,251
Blue-winged/Cinnamon Teal	0	0	30	0	120	0
Northern Shoveler	0	0	0	0	361	2,033
Northern Pintail	40	0	59	0	481	1,152
Wood Duck	3,112	2,701	3,590	5,730	6,492	4,134
Redhead	0	0	0	0	0	0
Canvasback	0	0	0	0	60	0
Greater Scaup	121	110	0	0	1,202	1,355
Lesser Scaup	202	83	0	0	240	474
Ring-necked Duck	121	276	30	203	180	136
Goldeneyes	40	248	30	101	0	0
Bufflehead	3,152	1,957	119	456	11,482	11,791
Ruddy Duck	0	0	0	0	60	0
Long-tailed Duck	557	2,505	35	139	801	3,221
Eiders	6,339	3,897	177	0	146	0
Scoters	2,299	3,062	283	240	5,751	4,141
Hooded Merganser	404	331	267	963	1,924	1,559
Other Mergansers	1,253	276	208	659	842	678
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	27,600±25%	23,000±46%	9,700±20%	14,000±48%	46,700±20%	62,100±23%
Total Active Duck Hunters ^a	4,100±27%	2,400±50%	2,400±19%	2,100±26%	5,600±11%	6,100±12%
Total Duck Hunter Days Afield ^a	21,400±27%	11,700±51%	15,200±22%	12,700±30%	31,800±15%	38,600±19%
Seasonal Duck Harvest Per Hunter ^a	4.5±36%	5.6±68%	3.8±28%	6.6±54%	7.1±23%	8.9±26%
Goose Species Composition						
Canada Goose	12,313	4,740	3,634	3,801	19,992	10,638
Snow Goose	0	20	46	0	2,041	1,126
Blue Goose	0	0	0	0	70	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	1,193	545	0	0	4,779	2,153
Other Geese ^d	0	0	0	0	0	113
Total Goose Harvest	13,500±39%	5,300±66%	3,700±25%	3,800±42%	26,900±23%	14,000±47%
Total Active Goose Hunters ^b	4,300±26%	2,000±63%	2,100±21%	1,200±36%	4,000±14%	3,700±17%
Total Goose Hunter Days Afield ^b	26,700±34%	6,300±50%	12,400±26%	8,100±48%	24,800±19%	18,400±26%
Seasonal Goose Harvest Per Hunter ^b	2.9±46%	2.4±91%	1.8±33%	3.1±55%	5.5±27%	3.3±50%
Active Waterfowl Hunters ^c	5,800±22%	4,600±43%	2,800±18%	2,100±25%	7,500±9%	7,900±10%
Sample Sizes						
DuckWings	588	560	323	272	757	824
GooseTails	210	234	81	62	384	242

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	New York		North Carolina		Pennsylvania	
	2020	2021	2020	2021	2020	2021
Mallard	35,164	32,094	36,865	23,130	23,917	17,253
Domestic Mallard	95	76	1,623	0	0	58
Black Duck	9,183	15,405	2,550	4,667	2,322	2,798
Mallard x Black Hybrid	523	831	0	0	116	0
Mottled Duck	0	0	0	0	0	0
Gadwall	1,808	2,341	17,853	21,101	1,742	1,690
Wigeon	3,426	5,890	12,520	13,594	464	583
Green-winged Teal	10,421	10,648	41,734	33,680	1,625	1,515
Blue-winged/Cinnamon Teal	1,190	1,510	4,869	5,478	813	175
Northern Shoveler	761	982	9,042	5,884	116	117
Northern Pintail	2,522	2,265	8,579	7,913	348	117
Wood Duck	18,177	17,217	110,363	96,374	16,138	13,114
Redhead	1,523	302	8,347	2,435	464	58
Canvasback	238	0	0	0	0	0
Greater Scaup	2,236	1,435	2,550	812	464	58
Lesser Scaup	809	831	12,056	4,261	116	641
Ring-necked Duck	1,380	2,114	25,736	15,014	581	933
Goldeneyes	2,665	2,870	0	0	348	525
Bufflehead	7,090	5,739	15,302	5,681	2,786	3,031
Ruddy Duck	619	0	3,014	812	0	0
Long-tailed Duck	7,261	4,170	0	0	0	0
Eiders	4,022	159	0	0	0	0
Scoters	2,681	1,258	4,869	3,043	0	0
Hooded Merganser	2,379	2,643	4,869	10,753	1,277	1,341
Other Mergansers	7,756	4,153	696	406	1,858	1,807
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	123,900±23%	114,900±22%	323,400±17%	255,000±18%	55,500±22%	45,800±27%
Total Active Duck Hunters ^a	15,800±15%	15,600±12%	29,500±16%	30,600±17%	15,500±23%	14,100±28%
Total Duck Hunter Days Afield ^a	94,300±18%	93,400±16%	184,100±19%	152,900±15%	72,100±25%	56,600±26%
Seasonal Duck Harvest Per Hunter ^a	7.1±28%	7.1±25%	11.0±23%	8.3±25%	3.6±32%	3.2±39%
Goose Species Composition						
Canada Goose	72,986	67,961	30,321	33,417	70,376	39,485
Snow Goose	5,770	2,973	0	0	0	2,661
Blue Goose	72	0	0	0	0	0
Ross' Goose	0	0	0	0	0	62
White-fronted Goose	0	0	0	0	0	0
Brant	4,376	3,574	990	2,468	0	0
Other Geese ^d	0	283	0	0	0	0
Total Goose Harvest	83,200±22%	74,800±24%	31,300±31%	35,900±35%	70,400±36%	42,200±40%
Total Active Goose Hunters ^b	12,700±13%	12,000±12%	17,400±22%	13,000±26%	18,700±19%	12,700±28%
Total Goose Hunter Days Afield ^b	75,200±27%	53,100±19%	81,900±36%	43,300±31%	82,000±21%	43,900±25%
Seasonal Goose Harvest Per Hunter ^b	6.2±25%	5.9±27%	1.7±38%	2.6±44%	3.8±41%	3.3±48%
Active Waterfowl Hunters ^c	18,000±14%	19,500±10%	30,900±16%	33,200±17%	25,800±18%	22,500±23%
Sample Sizes						
DuckWings	2,408	1,492	1,395	1,257	478	786
GooseTails	1,171	550	73	108	411	682

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Rhode Island		South Carolina		Vermont	
	2020	2021	2020	2021	2020	2021
Mallard	1,153	1,136	6,219	4,087	8,250	3,792
Domestic Mallard	17	0	113	195	0	0
Black Duck	1,068	1,373	452	487	2,205	1,351
Mallard x Black Hybrid	0	0	0	0	41	87
Mottled Duck	0	0	226	1,849	0	0
Gadwall	153	166	3,392	4,768	41	0
Wigeon	339	47	226	1,070	408	305
Green-winged Teal	17	402	9,611	9,536	2,246	1,264
Blue-winged/Cinnamon Teal	0	0	6,671	8,271	204	87
Northern Shoveler	0	0	1,583	2,335	82	0
Northern Pintail	34	24	0	778	490	44
Wood Duck	915	426	96,340	70,355	2,573	3,007
Redhead	0	0	226	97	41	0
Canvasback	0	0	0	0	0	0
Greater Scaup	102	95	0	0	163	44
Lesser Scaup	17	0	452	681	245	567
Ring-necked Duck	34	71	8,933	9,050	408	174
Goldeneyes	136	142	0	0	1,184	1,220
Bufflehead	712	473	2,827	2,433	41	131
Ruddy Duck	0	0	226	97	0	0
Long-tailed Duck	51	0	113	0	41	44
Eiders	1,878	2,256	0	0	0	0
Scoters	660	0	1,357	0	204	0
Hooded Merganser	170	118	1,922	3,698	613	479
Other Mergansers	593	260	339	0	408	87
Other Ducks	0	0	113	0	0	0
Total Duck Harvest	8,000±30%	7,000±29%	141,300±24%	119,800±34%	19,900±28%	12,700±23%
Total Active Duck Hunters^a	1,000±15%	900±17%	23,100±21%	16,000±28%	2,200±17%	2,000±19%
Total Duck Hunter Days Afield^a	5,700±18%	4,900±24%	103,000±25%	73,700±33%	15,600±17%	13,000±26%
Seasonal Duck Harvest Per Hunter^a	5.4±34%	5.1±34%	6.1±32%	7.5±44%	9.0±33%	6.4±30%
Goose Species Composition						
Canada Goose	2,135	1,981	14,107	7,979	11,783	6,182
Snow Goose	45	242	0	0	116	0
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	24	403	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	777	416	0	0	0	0
Other Geese ^d	0	0	0	0	0	0
Total Goose Harvest	3,000±53%	2,700±36%	14,500±42%	8,000±56%	11,900±26%	6,200±29%
Total Active Goose Hunters^b	700±19%	700±20%	7,000±30%	3,000±50%	2,100±21%	1,600±26%
Total Goose Hunter Days Afield^b	3,400±24%	2,900±27%	28,400±52%	8,200±58%	13,700±23%	9,700±35%
Seasonal Goose Harvest Per Hunter^b	3.2±56%	3.0±42%	2.1±51%	2.6±75%	5.6±34%	3.8±39%
Active Waterfowl Hunters^c	1,400±11%	1,200±14%	23,600±20%	16,600±28%	3,000±18%	2,900±19%
Sample Sizes						
DuckWings	373	201	1,250	1,231	487	291
GooseTails	158	127	36	18	103	68

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Virginia		West Virginia		Flyway Total	
	2020	2021	2020	2021	2020	2021
Mallard	33,190	23,221	1,972	2,129	220,791	179,879
Domestic Mallard	163	0	29	0	3,117	1,303
Black Duck	10,412	5,661	206	272	64,274	76,598
Mallard x Black Hybrid	813	288	29	34	2,690	2,593
Mottled Duck	0	0	0	0	9,594	14,809
Gadwall	10,575	7,101	0	51	42,779	46,539
Wigeon	1,302	1,535	0	34	22,122	28,840
Green-winged Teal	9,599	7,292	324	51	101,571	107,755
Blue-winged/Cinnamon Teal	1,139	384	235	34	56,280	69,069
Northern Shoveler	813	3,454	29	51	17,356	19,714
Northern Pintail	1,139	672	0	17	18,986	17,300
Wood Duck	23,591	20,150	2,001	1,516	409,246	380,841
Redhead	0	1,535	0	51	18,757	13,790
Canvasback	1,139	480	0	0	7,374	2,776
Greater Scaup	325	1,151	0	17	14,048	8,533
Lesser Scaup	2,278	3,454	29	0	31,117	21,247
Ring-necked Duck	4,718	6,237	0	119	99,697	91,023
Goldeneyes	813	96	59	0	7,140	6,767
Bufflehead	17,083	11,802	29	153	84,609	57,797
Ruddy Duck	813	192	88	0	8,895	2,791
Long-tailed Duck	459	617	0	0	17,081	21,975
Eiders	0	0	0	0	14,915	6,524
Scoters	5,047	12,026	0	0	43,051	38,877
Hooded Merganser	2,603	2,687	88	68	24,235	30,916
Other Mergansers	976	864	29	0	16,692	11,891
Other Ducks	0	0	0	0	5,030	6,978
Total Duck Harvest	129,000±20%	110,900±22%	5,200±22%	4,600±28%	1,361,400±7%	1,267,100±7%
Total Active Duck Hunters^a	16,800±17%	14,600±21%	1,200±21%	1,200±25%	179,300	169,000
Total Duck Hunter Days Afield^a	92,500±17%	82,300±21%	7,900±23%	5,700±29%	955,200±6%	859,400±6%
Seasonal Duck Harvest Per Hunter^a	7.4±27%	6.7±30%	4.2±31%	3.9±38%		
Goose Species Composition						
Canada Goose	30,350	20,770	4,388	5,862	391,061	300,450
Snow Goose	334	0	0	0	11,052	8,453
Blue Goose	0	0	0	0	913	78
Ross' Goose	0	0	0	0	403	86
White-fronted Goose	0	0	0	0	485	0
Brant	1,378	100	0	0	14,723	9,468
Other Geese ^d	0	81	0	0	0	637
Total Goose Harvest	32,100±21%	21,000±40%	4,400±32%	5,900±63%	418,600±9%	319,200±10%
Total Active Goose Hunters^b	13,300±18%	8,300±26%	1,200±22%	900±28%	120,400	91,200
Total Goose Hunter Days Afield^b	67,900±24%	34,600±26%	7,100±24%	5,500±35%	608,300±8%	378,900±7%
Seasonal Goose Harvest Per Hunter^b	2.3±28%	2.5±47%	3.6±39%	6.3±69%		
Active Waterfowl Hunters^c	21,300±15%	19,800±19%	1,500±20%	1,400±23%	216,300	208,500
Sample Sizes						
DuckWings	795	1,065	175	270	13,572	12,358
GooseTails	188	257	87	185	4,077	3,746

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Alabama		Arkansas		Illinois	
	2020	2021	2020	2021	2020	2021
Mallard	9,614	8,557	363,875	389,125	91,989	81,923
Domestic Mallard	0	1,222	0	0	0	263
Black Duck	0	0	222	1,564	714	263
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	10,383	12,225	187,498	155,077	13,713	24,327
Wigeon	769	1,467	10,454	12,250	3,857	5,917
Green-winged Teal	2,692	5,134	118,771	133,183	24,854	24,064
Blue-winged/Cinnamon Teal	8,460	8,068	19,350	10,165	25,711	13,939
Northern Shoveler	3,076	733	64,946	41,180	6,428	6,575
Northern Pintail	385	244	19,795	27,627	6,428	6,838
Wood Duck	75,370	72,614	71,841	111,290	14,998	9,994
Redhead	769	733	1,112	261	2,143	920
Canvasback	1,923	733	445	1,303	1,286	1,578
Greater Scaup	0	489	0	0	429	0
Lesser Scaup	385	1,711	3,781	3,388	4,142	4,076
Ring-necked Duck	4,230	10,758	17,349	18,766	7,856	12,887
Goldeneyes	0	489	1,779	1,303	1,857	1,315
Bufflehead	8,844	1,956	4,448	5,734	1,428	2,893
Ruddy Duck	385	244	0	0	571	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	1,154	3,423	3,336	3,388	2,000	4,339
Other Mergansers	769	244	0	0	286	263
Other Ducks	0	244	0	261	0	0
Total Duck Harvest	129,200±25%	131,300±29%	889,000±10%	915,900±9%	210,700±21%	202,400±18%
Total Active Duck Hunters^a	13,100±20%	14,400±22%	56,300±8%	56,500±6%	26,200±18%	18,400±14%
Total Duck Hunter Days Afield^a	76,500±21%	74,900±22%	450,700±11%	400,200±9%	174,000±18%	160,700±19%
Seasonal Duck Harvest Per Hunter^a	9.9±32%	9.1±37%	15.8±13%	16.2±11%	8.0±28%	11.0±23%
Goose Species Composition						
Canada Goose	9,961	15,418	17,696	11,070	102,824	66,799
Snow Goose	302	0	24,185	34,316	1,271	170
Blue Goose	0	0	12,977	16,604	477	170
Ross' Goose	0	0	2,359	7,749	159	509
White-fronted Goose	0	0	74,913	82,468	3,973	3,560
Brant	0	0	0	0	0	0
Other Geese ^d	0	0	0	0	0	678
Total Goose Harvest	10,300±50%	15,400±49%	132,100±43%	152,200±19%	108,700±29%	71,900±26%
Total Active Goose Hunters^b	3,700±43%	5,400±42%	21,400±11%	23,900±11%	20,600±19%	15,300±17%
Total Goose Hunter Days Afield^b	13,400±47%	13,600±41%	123,800±17%	125,000±16%	169,000±39%	107,900±22%
Seasonal Goose Harvest Per Hunter^b	2.8±66%	2.8±65%	6.2±44%	6.4±22%	5.3±35%	4.7±31%
Active Waterfowl Hunters^c	13,100±20%	14,400±22%	59,700±8%	59,200±6%	34,400±15%	23,200±14%
Sample Sizes						
DuckWings	336	537	3,997	3,514	1,475	1,539
GooseTails	34	60	224	275	684	424

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Indiana		Iowa		Kentucky	
	2020	2021	2020	2021	2020	2021
Mallard	46,012	36,013	32,416	22,456	41,935	54,442
Domestic Mallard	0	0	0	112	0	0
Black Duck	1,399	493	125	0	796	1,496
Mallard x Black Hybrid	140	0	0	0	133	115
Mottled Duck	0	0	0	0	0	0
Gadwall	5,454	8,263	15,210	8,196	9,422	10,704
Wigeon	979	987	5,236	2,807	1,725	1,611
Green-winged Teal	5,035	11,347	27,927	24,028	8,095	6,791
Blue-winged/Cinnamon Teal	6,713	4,193	45,631	23,578	2,521	921
Northern Shoveler	2,797	3,700	4,987	2,470	3,981	3,223
Northern Pintail	1,259	2,713	3,865	3,930	1,858	4,029
Wood Duck	6,433	5,797	24,935	9,656	11,811	20,948
Redhead	1,678	740	1,496	112	1,991	1,036
Canvasback	420	123	1,870	561	796	806
Greater Scaup	699	123	499	112	0	345
Lesser Scaup	839	0	1,870	1,235	531	1,381
Ring-necked Duck	1,538	1,480	5,112	1,909	4,379	6,791
Goldeneyes	839	493	499	112	0	691
Bufflehead	559	370	997	225	398	345
Ruddy Duck	140	0	125	0	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	249	0	0	0
Hooded Merganser	699	123	748	112	5,176	4,949
Other Mergansers	0	0	249	112	0	0
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	83,600±16%	77,000±17%	174,000±22%	101,700±36%	95,500±12%	120,600±18%
Total Active Duck Hunters^a	9,900±14%	10,000±16%	11,500±19%	10,200±24%	11,300±20%	8,700±20%
Total Duck Hunter Days Afield^a	109,000±62%	62,300±27%	114,900±34%	79,600±35%	90,000±21%	88,200±30%
Seasonal Duck Harvest Per Hunter^a	8.4±21%	7.7±23%	15.2±29%	9.9±43%	8.5±24%	13.9±27%
Goose Species Composition						
Canada Goose	61,417	44,094	60,600	24,221	20,894	27,168
Snow Goose	337	0	267	0	1,510	2,508
Blue Goose	337	0	267	0	1,259	0
Ross' Goose	0	0	0	0	252	0
White-fronted Goose	4,049	3,614	267	112	3,776	3,762
Brant	0	0	0	0	0	0
Other Geese ^d	0	0	0	0	0	0
Total Goose Harvest	66,100±23%	47,700±24%	61,400±31%	24,300±34%	27,700±18%	33,400±40%
Total Active Goose Hunters^b	11,500±14%	8,800±18%	9,300±20%	7,200±27%	8,000±14%	8,100±15%
Total Goose Hunter Days Afield^b	78,800±17%	58,300±28%	91,700±43%	46,700±35%	75,300±21%	65,400±26%
Seasonal Goose Harvest Per Hunter^b	5.7±27%	5.4±30%	6.6±37%	3.4±44%	3.5±22%	4.1±43%
Active Waterfowl Hunters^c	11,900±13%	11,400±15%	13,600±18%	12,900±22%	11,800±20%	9,200±20%
Sample Sizes						
DuckWings	598	624	1,396	906	720	1,048
GooseTails	196	132	230	217	110	80

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Louisiana		Michigan		Minnesota	
	2020	2021	2020	2021	2020	2021
Mallard	23,237	16,773	74,043	85,511	107,860	84,070
Domestic Mallard	0	0	0	348	0	0
Black Duck	0	125	5,939	4,693	0	0
Mallard x Black Hybrid	0	0	198	0	0	0
Mottled Duck	11,619	7,635	0	0	0	0
Gadwall	125,329	78,731	5,147	4,171	21,787	14,253
Wigeon	13,904	8,762	6,533	5,735	12,911	13,287
Green-winged Teal	109,520	124,167	9,701	13,904	42,498	71,750
Blue-winged/Cinnamon Teal	235,991	216,167	5,345	8,690	92,528	81,171
Northern Shoveler	31,999	30,666	1,980	3,128	8,876	2,657
Northern Pintail	17,904	22,280	6,335	6,083	11,297	18,843
Wood Duck	71,426	46,187	39,001	48,839	101,136	83,587
Redhead	7,047	2,003	16,234	4,866	14,525	2,416
Canvasback	10,476	4,131	1,584	1,043	4,842	2,899
Greater Scaup	1,333	876	5,543	1,912	1,076	1,691
Lesser Scaup	49,522	17,899	7,523	9,559	8,607	4,590
Ring-necked Duck	20,761	24,658	5,741	8,516	62,941	28,507
Goldeneyes	381	250	4,157	6,257	7,800	3,141
Bufflehead	6,666	3,880	29,300	13,209	12,373	7,731
Ruddy Duck	2,286	125	594	869	1,345	0
Long-tailed Duck	0	0	16,828	3,824	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	3,366	695	269	0
Hooded Merganser	4,381	2,879	5,741	5,388	15,601	7,489
Other Mergansers	0	250	1,980	1,564	1,345	725
Other Ducks	8,381	5,507	0	0	0	0
Total Duck Harvest	752,200±15%	614,000±12%	252,800±13%	238,800±16%	529,600±14%	428,800±19%
Total Active Duck Hunters ^a	38,200±10%	37,300±7%	28,200±12%	30,700±14%	55,500±12%	54,800±16%
Total Duck Hunter Days Afield ^a	286,900±13%	262,500±10%	182,000±14%	174,600±14%	331,900±15%	297,900±16%
Seasonal Duck Harvest Per Hunter ^a	19.7±18%	16.5±14%	9.0±18%	7.8±21%	9.6±18%	7.8±25%
Goose Species Composition						
Canada Goose	1,919	0	170,171	148,984	142,434	144,151
Snow Goose	4,798	11,474	830	315	835	0
Blue Goose	3,838	6,120	0	315	0	0
Ross' Goose	960	1,912	0	315	418	0
White-fronted Goose	18,231	23,714	0	0	2,088	0
Brant	0	0	0	0	0	0
Other Geese ^d	0	0	0	2,205	0	335
Total Goose Harvest	29,700±26%	43,200±41%	171,000±20%	152,100±18%	145,800±19%	144,500±27%
Total Active Goose Hunters ^b	7,500±14%	7,100±16%	26,700±13%	27,900±15%	42,300±13%	41,700±17%
Total Goose Hunter Days Afield ^b	44,800±21%	39,900±29%	172,700±15%	171,800±19%	213,100±16%	250,200±22%
Seasonal Goose Harvest Per Hunter ^b	3.9±29%	6.0±44%	6.4±23%	5.5±23%	3.4±23%	3.5±32%
Active Waterfowl Hunters ^c	38,800±10%	37,900±7%	35,300±11%	39,500±13%	60,100±12%	61,500±16%
Sample Sizes						
DuckWings	3,949	4,905	1,277	1,374	1,969	1,775
GooseTails	31	113	412	483	349	431

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Mississippi		Missouri		Ohio	
	2020	2021	2020	2021	2020	2021
Mallard	46,117	43,092	146,598	177,561	31,502	38,424
Domestic Mallard	204	0	0	194	0	225
Black Duck	0	0	157	0	4,161	4,269
Mallard x Black Hybrid	0	201	0	0	0	225
Mottled Duck	0	403	0	0	0	0
Gadwall	39,179	19,331	30,325	38,313	5,349	6,966
Wigeon	1,632	2,416	4,085	12,447	991	5,393
Green-winged Teal	31,221	27,587	37,867	57,566	3,764	7,190
Blue-winged/Cinnamon Teal	11,223	3,222	21,526	19,448	9,510	9,887
Northern Shoveler	9,591	12,082	18,855	19,448	1,981	2,921
Northern Pintail	7,550	7,450	6,756	14,392	1,585	4,269
Wood Duck	36,322	38,662	4,085	10,502	16,444	10,786
Redhead	3,877	403	2,200	1,556	594	225
Canvasback	0	0	2,200	972	396	0
Greater Scaup	204	0	0	0	3,368	3,820
Lesser Scaup	2,857	403	2,828	972	0	2,921
Ring-necked Duck	4,489	7,249	7,228	8,168	991	2,247
Goldeneyes	0	0	786	972	1,189	1,348
Bufflehead	3,469	1,007	628	1,167	5,349	4,719
Ruddy Duck	204	0	471	0	198	225
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	471	0	0	0
Hooded Merganser	2,245	805	1,257	1,556	594	674
Other Mergansers	0	0	314	194	991	674
Other Ducks	612	0	0	0	0	0
Total Duck Harvest	201,000±18%	164,300±20%	288,600±18%	365,400±32%	89,000±27%	107,400±41%
Total Active Duck Hunters^a	15,700±20%	10,600±22%	26,900±14%	26,000±15%	13,200±23%	14,300±30%
Total Duck Hunter Days Afield^a	115,100±30%	75,300±18%	188,200±15%	181,300±22%	96,400±30%	139,000±70%
Seasonal Duck Harvest Per Hunter^a	12.8±27%	15.6±29%	10.7±23%	14.0±35%	6.7±36%	7.5±50%
Goose Species Composition						
Canada Goose	2,217	10,993	35,515	47,272	58,899	87,010
Snow Goose	8,424	3,664	2,709	6,145	0	0
Blue Goose	887	4,886	1,505	2,836	0	0
Ross' Goose	1,330	0	0	1,891	0	0
White-fronted Goose	3,103	12,214	8,126	3,309	307	0
Brant	0	0	0	0	0	0
Other Geese ^d	0	0	301	0	0	0
Total Goose Harvest	16,000±43%	31,800±90%	48,200±31%	61,500±31%	59,200±35%	87,000±43%
Total Active Goose Hunters^b	6,500±32%	5,000±41%	13,000±19%	13,400±19%	13,500±21%	13,800±27%
Total Goose Hunter Days Afield^b	39,200±48%	31,100±62%	78,700±24%	73,700±28%	94,700±25%	82,000±30%
Seasonal Goose Harvest Per Hunter^b	2.5±54%	6.3±99%	3.7±37%	4.6±36%	4.4±41%	6.3±51%
Active Waterfowl Hunters^c	16,100±20%	10,600±22%	29,600±13%	28,900±14%	18,000±20%	17,500±27%
Sample Sizes						
DuckWings	985	816	1,837	1,879	449	478
GooseTails	36	26	160	130	193	155

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Tennessee		Wisconsin		Flyway Total	
	2020	2021	2020	2021	2020	2021
Mallard	59,439	65,992	137,041	80,278	1,211,677	1,184,216
Domestic Mallard	683	0	1,275	8,591	2,162	10,955
Black Duck	683	273	2,550	889	16,746	14,065
Mallard x Black Hybrid	0	0	0	296	471	837
Mottled Duck	0	0	0	0	11,619	8,038
Gadwall	64,904	23,452	15,776	10,516	549,477	414,525
Wigeon	2,733	4,909	6,533	4,295	72,343	82,283
Green-winged Teal	15,030	20,179	38,563	36,436	475,539	563,327
Blue-winged/Cinnamon Teal	683	818	62,625	24,587	547,820	424,854
Northern Shoveler	5,466	3,272	4,621	3,703	169,584	135,760
Northern Pintail	4,099	5,181	10,995	8,887	100,111	132,767
Wood Duck	30,744	60,266	105,649	86,499	610,197	615,625
Redhead	1,366	1,909	15,616	4,443	70,649	21,623
Canvasback	0	545	5,896	4,740	32,132	19,435
Greater Scaup	0	0	6,215	2,370	19,366	11,739
Lesser Scaup	6,832	273	12,429	6,369	102,147	54,779
Ring-necked Duck	4,782	3,272	14,182	11,109	161,580	146,316
Goldeneyes	0	545	8,605	4,295	27,892	21,212
Bufflehead	17,763	0	27,408	10,072	119,634	53,307
Ruddy Duck	683	273	2,390	444	9,392	2,180
Long-tailed Duck	0	0	3,824	3,703	20,652	7,527
Eiders	0	0	0	0	0	0
Scoters	0	0	2,390	1,777	6,746	2,473
Hooded Merganser	2,050	818	5,099	2,962	50,080	38,907
Other Mergansers	0	0	3,665	1,481	9,599	5,509
Other Ducks	0	0	2,231	0	11,224	6,013
Total Duck Harvest	217,900±20%	192,000±22%	495,600±14%	318,700±14%	4,408,800±5%	3,978,300±5%
Total Active Duck Hunters^a	18,600±18%	18,500±25%	54,800±13%	47,500±20%	379,300	357,700
Total Duck Hunter Days Afield^a	127,800±18%	99,600±19%	374,100±16%	296,900±15%	2,717,500±5%	2,393,000±6%
Seasonal Duck Harvest Per Hunter^a	11.7±27%	10.4±34%	9.0±19%	6.7±24%		
Goose Species Composition						
Canada Goose	12,781	12,445	164,412	134,268	861,739	773,893
Snow Goose	2,691	0	0	0	48,159	58,592
Blue Goose	2,018	0	0	0	23,565	30,930
Ross' Goose	0	0	0	0	5,477	12,376
White-fronted Goose	673	889	0	0	119,507	133,643
Brant	0	0	0	0	0	0
Other Geese ^d	0	889	0	2,290	301	6,397
Total Goose Harvest	18,200±30%	14,200±48%	164,400±18%	136,600±28%	1,058,700±9%	1,015,800±9%
Total Active Goose Hunters^b	9,200±24%	6,500±36%	37,900±11%	42,300±14%	231,200	226,500
Total Goose Hunter Days Afield^b	73,400±42%	49,000±49%	262,500±15%	281,300±19%	1,531,000±7%	1,395,900±7%
Seasonal Goose Harvest Per Hunter^b	2.0±39%	2.2±60%	4.3±21%	3.2±31%		
Active Waterfowl Hunters^c	19,300±18%	18,700±25%	67,100±12%	57,700±19%	428,700	402,600
Sample Sizes						
DuckWings	319	704	3,110	2,152	22,417	22,251
GooseTails	27	16	610	477	3,296	3,019

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Colorado		Kansas		Nebraska	
	2020	2021	2020	2021	2020	2021
Mallard	30,866	33,000	89,442	121,261	54,764	53,240
Domestic Mallard	0	0	0	0	0	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	11,585	5,811	30,623	20,151	12,660	9,382
Wigeon	5,793	4,605	7,511	8,838	7,263	8,365
Green-winged Teal	12,247	6,468	29,698	32,525	26,891	24,303
Blue-winged/Cinnamon Teal	5,048	5,482	45,068	27,575	39,159	21,816
Northern Shoveler	1,738	1,316	13,867	4,773	5,594	2,035
Northern Pintail	1,903	1,535	8,667	7,954	3,435	2,261
Wood Duck	1,572	767	3,467	5,126	4,220	1,582
Redhead	910	439	6,933	884	2,846	0
Canvasback	331	329	1,271	354	589	226
Greater Scaup	83	0	116	177	0	0
Lesser Scaup	248	329	1,387	1,591	1,276	113
Ring-necked Duck	1,159	877	5,778	6,187	1,570	678
Goldeneyes	993	767	13,405	16,969	2,846	791
Bufflehead	331	548	1,733	4,419	589	1,130
Ruddy Duck	166	0	1,271	0	589	0
Long-tailed Duck	0	0	116	0	196	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	248	110	924	1,061	491	452
Other Mergansers	662	110	116	354	0	0
Other Ducks	248	110	347	0	393	0
Total Duck Harvest	76,100±19%	62,600±31%	261,700±37%	260,200±28%	165,400±16%	126,400±16%
Total Active Duck Hunters^a	11,300±17%	8,100±18%	20,000±23%	20,900±15%	11,900±14%	13,500±16%
Total Duck Hunter Days Afield^a	62,100±27%	32,900±21%	103,000±26%	105,600±19%	84,900±14%	91,100±13%
Seasonal Duck Harvest Per Hunter^a	6.7±25%	7.7±36%	13.1±44%	12.5±32%	13.9±22%	9.4±22%
Goose Species Composition						
Canada Goose	57,674	47,819	78,030	90,108	74,816	91,232
Snow Goose	3,473	2,311	13,047	11,462	962	6,312
Blue Goose	248	178	2,760	4,776	241	287
Ross' Goose	620	533	3,763	5,731	0	287
White-fronted Goose	124	178	8,781	6,050	962	287
Brant	0	178	0	0	0	0
Other Geese ^d	124	30,043	0	13,054	241	9,754
Total Goose Harvest	62,300±20%	81,200±22%	106,400±32%	131,200±33%	77,200±21%	108,200±16%
Total Active Goose Hunters^b	10,500±17%	10,300±18%	15,000±26%	17,400±17%	12,800±12%	13,300±12%
Total Goose Hunter Days Afield^b	63,700±19%	43,500±23%	75,100±32%	90,300±42%	88,200±15%	111,200±17%
Seasonal Goose Harvest Per Hunter^b	5.9±26%	7.9±28%	7.1±42%	7.5±37%	6.0±25%	8.1±21%
Active Waterfowl Hunters^c	16,400±14%	13,800±15%	24,200±21%	25,600±14%	17,000±12%	17,400±13%
Sample Sizes						
DuckWings	920	571	2,265	1,472	1,685	1,118
GooseTails	502	457	424	412	321	377

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	New Mexico		North Dakota		Oklahoma	
	2020	2021	2020	2021	2020	2021
Mallard	8,611	7,125	136,507	86,387	121,739	114,046
Domestic Mallard	0	22	105	0	0	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	4,472	1,536	76,674	42,436	94,930	59,110
Wigeon	4,421	2,293	18,829	22,034	27,249	25,050
Green-winged Teal	3,066	2,004	38,599	47,682	40,214	49,222
Blue-winged/Cinnamon Teal	1,814	779	45,921	32,760	17,360	10,108
Northern Shoveler	1,584	712	30,230	11,775	15,822	7,032
Northern Pintail	1,048	401	21,234	16,438	15,382	8,570
Wood Duck	511	178	4,080	3,614	9,010	8,790
Redhead	358	245	28,557	5,013	4,175	1,538
Canvasback	128	156	9,519	3,731	3,955	3,296
Greater Scaup	0	0	314	0	220	0
Lesser Scaup	128	22	10,147	4,080	1,318	1,978
Ring-necked Duck	869	757	7,636	6,878	29,446	15,821
Goldeneyes	281	401	837	350	439	439
Bufflehead	332	557	10,042	4,780	879	1,318
Ruddy Duck	0	134	5,753	350	0	0
Long-tailed Duck	0	0	105	0	0	439
Eiders	0	0	0	0	0	0
Scoters	0	0	0	117	0	0
Hooded Merganser	77	67	1,255	466	1,318	1,978
Other Mergansers	102	289	0	117	0	0
Other Ducks	562	312	209	0	220	220
Total Duck Harvest	28,400±47%	18,000±80%	446,600±11%	289,000±12%	383,700±16%	309,000±15%
Total Active Duck Hunters^a	3,300±69%	5,400±74%	31,200±9%	29,900±12%	23,400±11%	23,400±11%
Total Duck Hunter Days Afield^a	15,300±44%	24,100±101%	153,800±10%	142,300±14%	152,400±19%	129,100±16%
Seasonal Duck Harvest Per Hunter^a	8.5±83%	3.4±110%	14.3±14%	9.7±17%	16.4±20%	13.2±19%
Goose Species Composition						
Canada Goose	4,107	3,221	107,096	96,192	83,615	34,927
Snow Goose	316	67	18,550	32,195	2,565	3,004
Blue Goose	0	0	9,770	18,060	0	0
Ross' Goose	105	134	2,968	7,852	1,026	2,629
White-fronted Goose	0	0	3,957	5,104	4,617	2,629
Brant	0	0	0	0	0	0
Other Geese ^d	0	872	124	3,337	513	31,923
Total Goose Harvest	4,500±63%	4,300±64%	142,500±14%	162,700±21%	92,300±27%	75,100±30%
Total Active Goose Hunters^b	2,300±73%	3,600±76%	24,700±8%	26,900±11%	13,600±16%	11,500±18%
Total Goose Hunter Days Afield^b	9,400±76%	14,600±105%	113,200±11%	112,000±14%	74,700±28%	49,000±28%
Seasonal Goose Harvest Per Hunter^b	1.9±96%	1.2±99%	5.8±16%	6.1±24%	6.8±31%	6.5±35%
Active Waterfowl Hunters^c	4,800±61%	8,700±57%	35,100±8%	34,400±11%	24,300±11%	23,800±11%
Sample Sizes						
DuckWings	1,110	808	4,269	2,479	1,746	1,406
GooseTails	86	64	1,152	829	180	200

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	South Dakota		Texas		Wyoming	
	2020	2021	2020	2021	2020	2021
Mallard	53,194	40,388	51,733	36,731	18,688	14,587
Domestic Mallard	0	0	0	0	0	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	8,270	3,845	0	0
Gadwall	32,843	25,077	236,739	87,783	3,403	785
Wigeon	8,643	11,587	71,733	34,344	2,565	3,352
Green-winged Teal	24,200	24,415	188,084	135,520	2,251	1,812
Blue-winged/Cinnamon Teal	22,865	16,883	280,587	206,993	1,047	1,117
Northern Shoveler	9,193	4,966	77,695	39,648	733	211
Northern Pintail	6,522	5,711	44,809	33,283	262	393
Wood Duck	6,522	3,973	40,963	28,510	681	272
Redhead	6,443	2,897	69,233	14,189	419	30
Canvasback	943	662	7,308	2,122	105	60
Greater Scaup	79	0	1,923	663	0	0
Lesser Scaup	3,457	1,986	25,386	14,719	209	60
Ring-necked Duck	4,007	3,559	69,233	44,422	262	211
Goldeneyes	864	248	1,154	2,122	2,931	91
Bufflehead	3,457	4,221	7,116	5,437	157	30
Ruddy Duck	1,257	248	1,923	1,061	0	0
Long-tailed Duck	0	0	192	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	385	0	0	60
Hooded Merganser	550	414	3,654	398	0	0
Other Mergansers	79	0	2,885	398	52	30
Other Ducks	157	0	2,885	1,989	105	0
Total Duck Harvest	185,300±31%	147,200±31%	1,193,900±26%	694,200±14%	33,900±24%	23,100±20%
Total Active Duck Hunters^a	11,300±21%	14,200±21%	80,300±20%	64,600±23%	3,700±18%	3,700±20%
Total Duck Hunter Days Afield^a	59,600±26%	64,100±27%	408,600±20%	295,500±17%	17,800±20%	19,400±50%
Seasonal Duck Harvest Per Hunter^a	16.4±38%	10.3±37%	14.9±33%	10.7±27%	9.3±30%	6.2±28%
Goose Species Composition						
Canada Goose	96,691	73,761	47,300	25,222	18,011	26,566
Snow Goose	24,740	10,335	58,787	25,222	0	139
Blue Goose	10,214	4,255	11,487	9,869	0	0
Ross' Goose	2,724	1,824	18,244	12,063	62	0
White-fronted Goose	2,951	4,863	21,623	10,966	62	0
Brant	0	0	0	0	0	0
Other Geese ^d	0	1,216	0	19,739	0	1,464
Total Goose Harvest	137,300±44%	96,300±30%	157,400±34%	103,100±33%	18,100±29%	28,200±20%
Total Active Goose Hunters^b	12,000±17%	13,800±17%	35,800±21%	35,500±24%	3,700±15%	3,900±15%
Total Goose Hunter Days Afield^b	65,100±24%	67,400±29%	104,200±28%	107,100±47%	19,500±23%	17,500±19%
Seasonal Goose Harvest Per Hunter^b	11.5±47%	7.0±35%	4.4±40%	2.9±41%	5.0±33%	7.3±25%
Active Waterfowl Hunters^c	15,300±18%	17,400±18%	84,300±20%	71,700±23%	5,400±13%	6,000±12%
Sample Sizes						
DuckWings	2,358	1,779	6,208	5,235	647	765
GooseTails	605	475	233	94	294	404

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Flyway Total	
	2020	2021
Mallard	565,544	506,763
Domestic Mallard	105	22
Black Duck	0	0
Mallard x Black Hybrid	0	0
Mottled Duck	8,270	3,845
Gadwall	503,930	252,071
Wigeon	154,005	120,468
Green-winged Teal	365,250	323,950
Blue-winged/Cinnamon Teal	458,868	323,514
Northern Shoveler	156,456	72,467
Northern Pintail	103,262	76,545
Wood Duck	71,024	52,812
Redhead	119,874	25,234
Canvasback	24,149	10,935
Greater Scaup	2,734	840
Lesser Scaup	43,556	24,879
Ring-necked Duck	119,960	79,391
Goldeneyes	23,751	22,179
Bufflehead	24,636	22,440
Ruddy Duck	10,959	1,792
Long-tailed Duck	609	439
Eiders	0	0
Scoters	385	177
Hooded Merganser	8,518	4,945
Other Mergansers	3,895	1,297
Other Ducks	5,125	2,630
Total Duck Harvest	2,774,900±12%	1,929,600±8%
Total Active Duck Hunters ^a	196,500	183,800
Total Duck Hunter Days Afield ^a	1,057,700±9%	904,100±8%
Seasonal Duck Harvest Per Hunter ^a		
<u>Goose Species Composition</u>		
Canada Goose	567,339	489,047
Snow Goose	122,440	91,047
Blue Goose	34,719	37,426
Ross' Goose	29,513	31,053
White-fronted Goose	43,077	30,077
Brant	0	178
Other Geese ^d	1,001	111,403
Total Goose Harvest	798,100±12%	790,200±10%
Total Active Goose Hunters ^b	130,400	136,100
Total Goose Hunter Days Afield ^b	613,100±8%	612,500±12%
Seasonal Goose Harvest Per Hunter ^b		
Active Waterfowl Hunters ^c	226,900	218,800
<u>Sample Sizes</u>		
DuckWings	21,208	15,633
GooseTails	3,797	3,312

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Arizona		California		Idaho	
	2020	2021	2020	2021	2020	2021
Mallard	1,958	2,292	136,289	87,509	112,842	150,403
Domestic Mallard	0	0	478	0	275	187
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	1,175	1,146	60,446	43,462	13,195	6,446
Wigeon	1,200	2,107	197,118	141,603	22,129	20,178
Green-winged Teal	2,892	3,290	294,864	291,968	13,195	8,408
Blue-winged/Cinnamon Teal	594	887	33,953	14,721	962	374
Northern Shoveler	1,313	1,516	160,965	166,839	2,886	2,616
Northern Pintail	379	702	102,432	76,760	2,474	1,868
Wood Duck	13	37	12,625	13,319	1,924	2,149
Redhead	164	333	8,799	4,323	2,337	934
Canvasback	240	111	21,519	15,889	1,512	374
Greater Scaup	38	0	2,391	1,402	550	0
Lesser Scaup	114	111	10,999	15,072	1,512	1,775
Ring-necked Duck	758	1,442	22,285	20,095	2,474	1,028
Goldeneyes	126	0	4,400	5,491	15,394	5,792
Bufflehead	303	111	15,877	25,937	3,436	1,214
Ruddy Duck	290	74	2,774	3,622	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	761	753	137	0
Hooded Merganser	51	74	1,148	467	137	374
Other Mergansers	88	37	191	584	137	280
Other Ducks	240	665	96	0	0	0
Total Duck Harvest	11,900±35%	14,900±21%	1,090,400±12%	929,800±14%	197,500±41%	204,400±35%
Total Active Duck Hunters ^a	1,500±22%	2,500±20%	48,900±10%	44,000±12%	12,600±18%	13,800±23%
Total Duck Hunter Days Afield ^a	7,200±27%	11,700±26%	419,100±10%	330,200±11%	81,300±28%	104,500±43%
Seasonal Duck Harvest Per Hunter ^a	8.0±41%	6.0±29%	22.3±16%	21.1±18%	15.7±44%	14.8±42%
Goose Species Composition						
Canada Goose	784	687	54,616	30,406	49,692	46,523
Snow Goose	287	1,717	114,150	88,421	1,707	1,169
Blue Goose	0	0	1,187	0	0	0
Ross' Goose	131	343	17,979	19,773	379	468
White-fronted Goose	52	0	101,598	59,693	379	468
Brant	0	0	948	1,155	0	0
Other Geese ^d	0	0	0	30,220	0	1,520
Total Goose Harvest	1,300±48%	2,700±54%	290,500±13%	229,700±22%	52,200±47%	50,100±40%
Total Active Goose Hunters ^b	800±35%	1,300±32%	37,600±9%	31,600±10%	9,700±22%	11,600±24%
Total Goose Hunter Days Afield ^b	4,400±44%	6,100±44%	294,100±12%	199,800±12%	55,500±34%	65,300±42%
Seasonal Goose Harvest Per Hunter ^b	1.5±59%	2.2±62%	7.7±16%	7.2±25%	5.4±52%	4.3±46%
Active Waterfowl Hunters ^c	1,500±22%	2,600±20%	52,300±10%	47,500±12%	15,200±16%	16,500±21%
Sample Sizes						
DuckWings	945	404	11,411	7,961	1,437	2,188
GooseTails	48	8	1,732	1,324	275	429

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Montana		Nevada		Oregon	
	2020	2021	2020	2021	2020	2021
Mallard	127,437	53,846	5,471	4,615	119,984	135,613
Domestic Mallard	265	0	0	0	146	79
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	18,830	6,618	2,583	3,039	9,390	10,535
Wigeon	18,830	5,816	2,165	4,559	55,418	78,695
Green-winged Teal	16,709	4,412	10,068	10,526	46,222	59,434
Blue-winged/Cinnamon Teal	3,448	2,206	304	338	195	550
Northern Shoveler	5,172	401	2,393	3,208	12,699	22,170
Northern Pintail	3,050	1,805	2,203	1,970	27,052	32,940
Wood Duck	1,724	1,504	76	169	7,006	7,469
Redhead	4,376	401	988	338	195	0
Canvasback	928	301	1,102	507	2,044	4,717
Greater Scaup	265	0	38	0	6,714	6,211
Lesser Scaup	2,520	401	190	56	3,163	4,638
Ring-necked Duck	2,254	1,304	456	1,576	6,277	10,692
Goldeneyes	10,476	2,607	114	338	2,044	1,101
Bufflehead	1,061	301	114	957	5,693	7,547
Ruddy Duck	265	0	342	225	341	314
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	133	0	0	0	365	196
Hooded Merganser	530	201	0	56	924	1,494
Other Mergansers	398	401	114	56	633	708
Other Ducks	0	0	38	0	292	0
Total Duck Harvest	218,700±21%	82,500±20%	28,800±23%	32,500±39%	306,800±14%	385,100±29%
Total Active Duck Hunters^a	17,700±10%	11,100±17%	3,500±24%	3,200±29%	19,200±9%	20,100±10%
Total Duck Hunter Days Afield^a	111,000±18%	49,700±18%	17,700±24%	18,500±37%	136,400±12%	151,800±23%
Seasonal Duck Harvest Per Hunter^a	12.3±23%	7.4±26%	8.3±33%	10.2±48%	16.0±17%	19.2±31%
Goose Species Composition						
Canada Goose	82,168	64,523	2,339	5,588	49,179	19,404
Snow Goose	626	768	192	349	7,366	8,783
Blue Goose	209	0	0	0	72	0
Ross' Goose	313	0	38	0	1,155	3,404
White-fronted Goose	0	3,380	38	0	5,199	5,855
Brant	0	0	0	0	98	0
Other Geese ^d	209	1,383	0	0	0	15,455
Total Goose Harvest	83,500±20%	70,100±20%	2,600±39%	5,900±56%	63,100±22%	52,900±15%
Total Active Goose Hunters^b	12,400±14%	11,200±15%	1,600±35%	2,400±35%	11,200±10%	10,600±11%
Total Goose Hunter Days Afield^b	71,200±25%	48,600±22%	7,600±45%	12,100±58%	65,300±12%	64,500±22%
Seasonal Goose Harvest Per Hunter^b	6.7±24%	6.3±25%	1.7±53%	2.5±66%	5.6±24%	5.0±19%
Active Waterfowl Hunters^c	21,300±8%	17,600±12%	3,500±24%	3,200±28%	21,400±9%	21,500±10%
Sample Sizes						
DuckWings	1,649	823	757	578	6,307	4,910
GooseTails	801	456	68	34	873	777

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2020 and 2021 hunting seasons.

Duck Species Composition	Utah		Washington		Flyway Total	
	2020	2021	2020	2021	2020	2021
Mallard	68,427	37,585	215,115	188,043	787,522	659,906
Domestic Mallard	148	106	196	152	1,508	523
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	34,250	28,611	14,097	14,022	153,967	113,879
Wigeon	28,702	20,799	75,382	88,526	400,944	362,283
Green-winged Teal	41,944	25,338	46,208	41,459	472,101	444,835
Blue-winged/Cinnamon Teal	5,400	4,329	131	152	44,986	23,556
Northern Shoveler	23,450	26,394	15,337	17,660	224,216	240,804
Northern Pintail	20,787	15,309	22,582	22,435	180,960	153,789
Wood Duck	296	0	2,415	3,790	26,079	28,436
Redhead	5,104	2,851	3,002	2,350	24,965	11,529
Canvasback	3,255	2,639	3,002	3,638	33,602	28,176
Greater Scaup	740	0	3,590	1,895	14,326	9,508
Lesser Scaup	3,625	1,161	7,832	7,958	29,953	31,173
Ring-necked Duck	5,548	1,689	12,270	10,156	52,321	47,982
Goldeneyes	4,291	5,701	1,277	1,521	38,121	22,550
Bufflehead	1,553	2,006	13,640	8,640	41,677	46,714
Ruddy Duck	1,923	950	587	303	6,523	5,489
Long-tailed Duck	0	106	39	0	39	106
Eiders	0	0	0	0	0	0
Scoters	0	0	967	562	2,363	1,511
Hooded Merganser	74	106	783	1,667	3,648	4,439
Other Mergansers	1,036	211	587	910	3,184	3,187
Other Ducks	74	106	280	185	1,020	956
Total Duck Harvest	250,600±13%	176,000±15%	439,300±11%	416,000±11%	2,544,000±7%	2,241,300±9%
Total Active Duck Hunters^a	17,400±13%	15,700±13%	28,200±5%	27,300±5%	149,000	137,600
Total Duck Hunter Days Afield^a	114,200±21%	87,100±13%	203,500±10%	166,100±9%	1,090,400±6%	919,600±8%
Seasonal Duck Harvest Per Hunter^a	14.4±19%	11.2±20%	15.5±12%	15.2±12%		
Goose Species Composition						
Canada Goose	24,472	21,482	45,801	32,153	309,050	220,764
Snow Goose	2,818	1,063	20,870	21,135	148,016	123,406
Blue Goose	0	0	0	0	1,468	0
Ross' Goose	593	1,063	5,360	7,083	25,949	32,135
White-fronted Goose	0	0	325	450	107,593	69,846
Brant	0	0	1,256	1,082	2,302	2,237
Other Geese ^d	0	0	0	16,189	209	64,766
Total Goose Harvest	27,900±24%	23,600±31%	73,600±21%	78,100±19%	594,600±9%	513,200±12%
Total Active Goose Hunters^b	8,400±14%	7,500±15%	15,100±7%	13,800±8%	96,800	90,000
Total Goose Hunter Days Afield^b	64,800±27%	44,200±23%	89,400±14%	65,600±14%	652,400±8%	506,200±9%
Seasonal Goose Harvest Per Hunter^b	3.3±28%	3.1±35%	4.8±22%	5.6±21%		
Active Waterfowl Hunters^c	18,300±13%	16,900±13%	31,400±5%	29,900±5%	164,900	155,700
Sample Sizes						
DuckWings	3,388	1,667	6,815	5,525	32,709	24,056
GooseTails	188	111	909	689	4,894	3,828

Table 1E. Preliminary estimates of waterfowl harvest and hunter activity in Alaska and the United States during the 2020 and 2021 hunting seasons.

Duck Species Composition	Alaska		United States Total	
	2020	2021	2020	2021
Mallard	15,678	10,864	2,801,212	2,541,629
Domestic Mallard	0	0	6,891	12,803
Black Duck	0	0	81,020	90,663
Mallard x Black Hybrid	0	0	3,160	3,430
Mottled Duck	0	0	29,482	26,693
Gadwall	352	541	1,250,504	827,555
Wigeon	5,755	4,424	655,168	598,299
Green-winged Teal	5,402	6,735	1,419,863	1,446,602
Blue-winged/Cinnamon Teal	59	98	1,108,012	841,091
Northern Shoveler	998	1,868	568,611	470,613
Northern Pintail	4,815	4,818	408,134	385,219
Wood Duck	0	0	1,116,545	1,077,714
Redhead	59	0	234,304	72,176
Canvasback	59	0	97,316	61,321
Greater Scaup	646	639	51,119	31,258
Lesser Scaup	352	246	207,125	132,322
Ring-necked Duck	1,468	442	435,025	365,154
Goldeneyes	2,701	1,573	99,605	74,282
Bufflehead	1,820	639	272,377	180,897
Ruddy Duck	0	0	35,768	12,252
Long-tailed Duck	567	3,371	38,948	33,417
Eiders	472	0	15,387	6,524
Scoters	5,858	3,371	58,402	46,408
Hooded Merganser	0	49	86,481	79,255
Other Mergansers	2,362	1,586	35,733	23,470
Other Ducks	472	1,784	22,871	18,360
Total Duck Harvest	49,900±19%	43,000±19%	11,139,100±4%	9,459,400±4%
Total Active Duck Hunters ^a	4,600±12%	4,300±14%	908,700	852,400
Total Duck Hunter Days Afield ^a	20,400±19%	18,100±19%	5,841,200±3%	5,094,100±4%
Seasonal Duck Harvest Per Hunter ^a	8.7±22%	7.7±24%		
Goose Species Composition				
Canada Goose	6,466	459	2,135,655	1,784,613
Snow Goose	0	287	329,666	281,785
Blue Goose	0	0	60,665	68,434
Ross' Goose	154	115	61,496	75,764
White-fronted Goose	1,078	1,090	271,740	234,655
Brant	1,895	4,872	18,920	16,755
Other Geese ^d	154	2,351	1,665	185,555
Total Goose Harvest	9,700±55%	9,200±44%	2,879,800±5%	2,647,600±5%
Total Active Goose Hunters ^b	1,900±20%	1,600±26%	580,800	545,300
Total Goose Hunter Days Afield ^b	8,000±32%	6,800±37%	3,412,800±4%	2,900,200±5%
Seasonal Goose Harvest Per Hunter ^b	4.1±59%	2.7±51%		
Active Waterfowl Hunters ^c	5,300±10%	5,600±12%	1,042,300	991,200
Sample Sizes				
DuckWings	787	721	90,693	75,019
GooseTails	72	112	16,136	14,017

^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, New York, Rhode Island, Virginia, California, Oregon, Washington, and Alaska. (Refer to Table 3.)

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

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

^d In the 2021-22 hunting season, cackling geese were identified from goose tails/wings using morphometric measurements; the harvest of cackling geese is included in the "Other geese" category in the table.

Table 2. Flyway-specific point estimates of duck and goose harvest in Colorado, Montana, New Mexico, and Wyoming during the 2020 and 2021 hunting seasons.

	2020		2021	
	Central Flyway	Pacific Flyway	Central Flyway	Pacific Flyway
Duck Harvest				
Colorado	65,400	10,800	53,600	9,000
Montana	42,700	176,000	22,900	59,700
New Mexico	21,900	6,400	12,500	5,500
Wyoming	21,500	12,400	19,200	3,900
Goose Harvest				
Colorado	58,700	3,600	79,800	1,400
Montana	49,300	34,200	39,300	30,700
New Mexico	3,900	600	3,500	800
Wyoming	15,900	2,200	27,100	1,100

Table 3. Preliminary estimates of sea duck harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2020 and 2021 hunting seasons. ¹

	<u>Sea Duck Harvest ²</u>		<u>Active Sea Duck Hunters ³</u>		<u>Sea Duck Hunter Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2020	2021	2020	2021	2020	2021	2020	2021
Connecticut	300 ± 95%	800 ± 84%	200 ± 77%	200 ± 69%	700 ± 95%	1,000 ± 91%	1.3 ± 122%	3.4 ± 109%
Delaware	1,600 ± 57%	1,400 ± 67%	500 ± 51%	500 ± 56%	1,100 ± 54%	900 ± 59%	3.1 ± 76%	2.9 ± 87%
Maine	6,800 ± 49%	3,700 ± 55%	1,300 ± 35%	900 ± 49%	3,700 ± 42%	2,300 ± 45%	5.1 ± 60%	4.0 ± 74%
Maryland	18,400 ± 21%	22,200 ± 25%	3,800 ± 16%	4,400 ± 18%	8,700 ± 22%	10,400 ± 25%	4.9 ± 27%	5.0 ± 30%
Massachusetts	9,200 ± 58%	9,500 ± 115%	1,600 ± 45%	1,000 ± 96%	6,400 ± 86%	2,200 ± 101%	5.8 ± 73%	9.4 ± 149%
New Hampshire	500 ± 88%	300 ± 101%	200 ± 72%	100 ± 98%	300 ± 65%	300 ± 82%	2.8 ± 114%	2.1 ± 140%
New Jersey	6,700 ± 35%	7,400 ± 52%	1,400 ± 24%	1,300 ± 32%	4,200 ± 30%	4,900 ± 51%	4.7 ± 42%	5.6 ± 61%
New York	11,200 ± 99%	4,300 ± 73%	1,000 ± 51%	1,200 ± 40%	5,500 ± 57%	4,700 ± 54%	10.8 ± 112%	3.6 ± 84%
Rhode Island	2,600 ± 35%	2,300 ± 54%	600 ± 25%	400 ± 31%	2,000 ± 32%	1,000 ± 34%	4.5 ± 43%	5.1 ± 62%
Virginia	5,500 ± 58%	12,600 ± 59%	1,800 ± 46%	2,000 ± 49%	3,300 ± 46%	4,700 ± 60%	3.1 ± 74%	6.4 ± 76%
Atlantic Flyway Total	62,800 ± 22%	64,300 ± 24%	12,400	12,100	36,000 ± 20%	32,400 ± 18%		
California	800 ± 44%	800 ± 58%	200 ± 25%	100 ± 38%	800 ± 49%	300 ± 53%	5.0 ± 51%	5.7 ± 69%
Oregon	400 ± 53%	200 ± 63%	100 ± 32%	100 ± 38%	400 ± 46%	200 ± 49%	3.4 ± 62%	2.3 ± 74%
Washington	2,300 ± 29%	2,100 ± 30%	700 ± 16%	800 ± 16%	3,100 ± 32%	2,800 ± 28%	3.3 ± 33%	2.7 ± 34%
Pacific Flyway Total	3,400 ± 22%	3,100 ± 26%	1,000	1,000	4,200 ± 25%	3,300 ± 24%		
Alaska	9,700 ± 30%	10,100 ± 33%	1,800 ± 23%	2,000 ± 25%	5,500 ± 25%	5,900 ± 29%	5.5 ± 38%	5.0 ± 41%
United States Total	76,000 ± 19%	77,500 ± 20%	15,200	15,100	45,700 ± 16%	41,600 ± 15%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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.

³ 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 2020 and 2021 hunting seasons. ¹

	Brant Harvest		Active Brant Hunters ²		Brant Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Connecticut	600 ± 75%	100 ± 192%	300 ± 59%	<50 ± 134%	2,200 ± 64%	200 ± 151%	2.3 ± 96%	1.5 ± 234%
Delaware	300 ± 99%	100 ± 88%	100 ± 61%	100 ± 57%	300 ± 72%	400 ± 77%	2.4 ± 116%	0.6 ± 105%
Maine	0	0	0	0	0	0	0	0
Maryland	300 ± 95%	100 ± 192%	200 ± 70%	100 ± 148%	1,000 ± 97%	200 ± 164%	1.3 ± 118%	0.6 ± 243%
Massachusetts	1,200 ± 78%	500 ± 186%	800 ± 58%	500 ± 131%	3,500 ± 117%	1,900 ± 165%	1.5 ± 98%	1.0 ± 228%
New Hampshire	0	0	<50 ± 193%	100 ± 194%	100 ± 193%	100 ± 194%	0	0
New Jersey	4,600 ± 28%	2,100 ± 47%	1,800 ± 20%	1,200 ± 31%	5,900 ± 23%	3,900 ± 34%	2.6 ± 34%	1.7 ± 56%
New York	4,200 ± 57%	3,600 ± 69%	1,000 ± 41%	1,200 ± 46%	4,500 ± 42%	4,900 ± 54%	4.3 ± 70%	2.9 ± 82%
North Carolina	1,000 ± 89%	2,500 ± 176%	1,100 ± 77%	600 ± 87%	2,900 ± 92%	3,700 ± 119%	0.9 ± 118%	4.0 ± 196%
Rhode Island	800 ± 47%	400 ± 70%	300 ± 35%	300 ± 42%	1,200 ± 31%	700 ± 37%	2.4 ± 59%	1.4 ± 81%
Virginia	1,400 ± 54%	100 ± 94%	700 ± 47%	500 ± 79%	1,900 ± 50%	700 ± 64%	2.1 ± 72%	0.2 ± 123%
Atlantic Flyway Tot	14,400 ± 22%	9,400 ± 55%	6,400	4,700	23,400 ± 25%	16,600 ± 37%		
California	900 ± 51%	1,200 ± 75%	700 ± 60%	500 ± 73%	2,700 ± 71%	1,200 ± 48%	1.4 ± 78%	2.5 ± 105%
Oregon	100 ± 168%	0	100 ± 126%	<50 ± 196%	300 ± 140%	<50 ± 196%	1.1 ± 210%	0
Washington	600 ± 52%	900 ± 47%	400 ± 46%	600 ± 43%	700 ± 41%	1,300 ± 61%	1.4 ± 69%	1.4 ± 64%
Pacific Flyway Tota	1,700 ± 36%	2,000 ± 48%	1,200	1,100	3,600 ± 54%	2,600 ± 39%		
Alaska	1,900 ± 43%	4,900 ± 43%	600 ± 36%	600 ± 36%	2,300 ± 43%	3,000 ± 40%	3.2 ± 56%	8.8 ± 56%
United States Total	18,000 ± 19%	16,300 ± 35%	8,200	6,400	29,400 ± 21%	22,200 ± 29%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons.

State	Harvest										Number of	
	Green-winged teal		Blue-winged teal		Wood ducks		Other ducks		Total duck harvest		wings received	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
September Teal Seasons												
Delaware	376	92	282	0	0	0	0	0	658	92	7	1
Georgia	0	0	2,258	0	0	0	0	0	2,258	0	12	0
Maryland	0	138	810	138	0	0	0	0	810	276	5	2
North Carolina	0	203	464	2,435	0	0	0	0	464	2,638	2	13
South Carolina	0	0	4,184	1,752	0	0	0	0	4,184	1,752	37	18
Virginia	0	96	0	96	0	0	0	0	0	192	0	2
Atlantic Flyway Total	376	528	7,997	4,420	0	0	0	0	8,373	4,948	63	36
Alabama	0	244	7,691	8,068	0	0	0	0	7,691	8,313	20	34
Arkansas	2,224	2,606	17,793	8,601	0	0	0	0	20,018	11,207	90	43
Illinois	1,571	3,024	24,426	12,624	0	0	0	0	25,997	15,648	182	119
Indiana	140	2,960	6,433	3,823	140	0	0	0	6,713	6,783	48	55
Iowa	1,496	6,175	28,800	15,719	0	0	0	0	30,296	21,894	243	195
Louisiana	1,143	3,505	139,804	115,531	0	0	0	125	140,947	119,161	740	952
Michigan	1,188	2,086	3,366	3,302	0	0	0	0	4,553	5,388	23	31
Minnesota	0	6,523	0	41,794	0	0	0	0	0	48,316	0	200
Mississippi	0	201	10,203	1,611	0	201	0	0	10,203	2,014	50	10
Missouri	1,257	5,056	21,055	18,476	0	0	0	0	22,312	23,532	142	121
Ohio	1,189	5,618	8,916	8,763	0	0	0	0	10,104	14,381	51	64
Wisconsin	3,984	1,925	37,129	9,331	0	0	0	296	41,112	11,553	258	78
Mississippi Flyway Total	14,192	39,924	305,615	247,643	140	201	0	421	319,947	288,190	1,847	1,902
Colorado	331	439	2,979	658	83	0	0	0	3,393	1,096	41	10
Kansas	5,547	9,899	36,054	26,868	0	0	116	0	41,717	36,767	361	208
Nebraska	3,631	9,043	34,448	17,068	0	0	0	0	38,079	26,111	388	231
New Mexico	434	200	1,150	423	0	0	26	0	1,610	623	63	28
Oklahoma	439	3,736	16,041	10,108	0	0	0	0	16,481	13,844	75	63
Texas	10,577	12,995	228,277	151,830	0	0	192	133	239,047	164,958	1,243	1,244
Central Flyway Total	20,960	36,311	318,950	206,956	83	0	333	133	340,326	243,400	2,171	1,784
SeasonType total	35,528	76,764	632,562	459,019	223	201	333	554	668,646	536,538	4,081	3,722
September Teal/Wood Duck Seasons												
Florida	0	125	10,761	14,080	2,555	3,863	0	0	13,316	18,067	172	145
Kentucky	265	0	2,389	921	6,503	5,755	0	0	9,157	6,676	69	58
Tennessee	683	0	683	818	8,882	5,727	0	0	10,248	6,545	15	24
SeasonType total	949	125	13,833	15,819	17,939	15,344	0	0	32,721	31,288	256	227
U.S. Total	36,477	76,889	646,395	474,838	18,162	15,546	333	554	701,367	567,826	4,337	3,949

Table 6. Preliminary estimates of the number of Canada geese harvested during the special September, regular, and special late seasons during the 2020 and 2021 hunting seasons.

State / Flyway	September		Regular		Late		Total	
	2020	2021	2020	2021	2020	2021	2020	2021
Connecticut	4,300	700	6,800	4,700	0	0	11,200	5,400
Delaware	3,800	3,300	7,700	5,300	0	0	11,600	8,500
Georgia	15,800	7,800	9,700	13,300	0	0	25,500	21,100
Maine	6,900	5,700	7,500	4,500	0	0	14,300	10,100
Maryland	4,900	6,000	49,600	46,400	0	0	54,600	52,400
Massachusetts	2,800	1,300	9,500	3,400	0	0	12,300	4,700
New Hampshire	1,400	1,400	2,300	2,400	0	0	3,600	3,800
New Jersey	2,000	1,800	18,000	8,800	0	0	20,000	10,600
New York	42,900	41,200	30,100	26,800	0	0	73,000	68,000
North Carolina	10,500	16,900	19,800	16,600	0	0	30,300	33,400
Pennsylvania	18,200	16,000	52,200	23,500	0	0	70,400	39,500
Rhode Island	300	500	1,700	1,500	200	0	2,100	2,000
South Carolina	5,200	6,600	7,700	1,300	1,200	0	14,100	8,000
Vermont	4,600	3,800	7,200	2,400	0	0	11,800	6,200
Virginia	13,000	0	17,300	20,800	0	0	30,300	20,800
West Virginia	1,400	1,500	3,000	4,400	0	0	4,400	5,900
Atlantic Flyway Total ¹	138,100	114,600	251,600	185,900	1,400	0	391,100	300,400
North Dakota	35,400	34,200	71,700	62,000	0	0	107,100	96,200
Oklahoma	1,500	2,300	82,100	32,700	0	0	83,600	34,900
South Dakota	37,700	20,300	59,000	53,500	0	0	96,700	73,800
Texas	700	0	46,600	25,200	0	0	47,300	25,200
Central Flyway Total ¹	75,300	58,600	534,900	462,100	0	0	610,100	520,800
Colorado	100	0	3,500	1,200	0	0	3,600	1,200
Idaho	3,800	2,100	45,900	44,400	0	0	49,700	46,500
Oregon	1,900	3,700	47,200	15,700	0	0	49,200	19,400
Washington	4,700	4,200	41,100	28,000	0	0	45,800	32,200
Wyoming	400	100	1,700	1,000	0	0	2,200	1,100
Pacific Flyway Total ¹	11,000	10,100	255,300	179,000	0	0	266,300	189,100
United States Total	312,200	197,100	1,822,000	1,587,500	1,400	0	2,135,700	1,784,600

¹ Flyway and U.S. totals include all states' harvest.

Table 7. Waterfowl harvest estimates in Canada during the 2020 and 2021 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

Duck Species Composition	Newfoundland		Prince Edward Isl.		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Mallard	234		1,324		3,511		4,235		39,071		72,743		10,796	
Black Duck	4,190		2,239		12,121		5,166		16,226		9,572		72	
Gadwall	15		45		36		129		1,594		2,511		1,624	
Wigeon	73		74		314		714		1,365		4,398		976	
Green-winged Teal	2,343		467		2,082		3,676		12,870		10,266		2,015	
Blue-winged/Cinnamon Teal	66		166		168		1,561		2,776		3,761		6,546	
Northern Shoveler	14		10		24		95		558		663		1,144	
Northern Pintail	260		94		139		319		3,088		2,738		1,790	
Wood Duck	39		34		297		3,860		16,074		44,657		396	
Redhead	17		0		18		42		158		6,917		1,185	
Canvasback	0		0		12		0		37		1,952		1,674	
Greater Scaup	302		15		504		201		1,206		4,004		101	
Lesser Scaup	152		23		126		111		1,863		5,959		1,679	
Ring-necked Duck	2467		179		284		1,281		3,905		9,438		1,285	
Goldeneyes	836		50		596		1,262		2,447		3,965		223	
Bufflehead	19		7		452		146		442		3,753		1,559	
Ruddy Duck	0		6		18		7		28		403		65	
Long-tailed Duck	249		15		253		68		397		353		10	
Eiders	5,854		7		535		133		1,604		35		20	
Scoters	622		29		1,500		428		1,462		498		51	
Hooded Merganser	155		16		280		188		1,767		2,038		401	
Other Mergansers	4,155		59		811		108		972		885		28	
Other Ducks	13		0		13		0		25		31		0	
Total Duck Harvest	22,075		4,859		24,094		23,730		109,935		191,540		33,640	
<hr/>														
Goose Species Composition														
Canada Goose	3,509		13,333		10,926		15,122		118,626		149,674		35,092	
Snow Goose	22		0		63		142		49,714		520		5,179	
Blue Goose	0		0		0		0		0		0		0	
Ross's Goose	0		23		0		0		24		69		979	
White-fronted Goose	0		0		40		0		50		41		229	
Brant	8		0		0		0		73		110		0	
Total Goose Harvest	3,539		13,356		11,029		15,264		168,487		150,414		41,479	
<hr/>														
Migratory Bird Permits Sold	12,615		1,231		4,583		5,053		28,727		50,801		6,031	

Table 7 (continued). Waterfowl harvest estimates in Canada during the 2020 and 2021 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

Duck Species Composition	Saskatchewan		Alberta		British Columbia		Nunavut		Northwest Terr.		Yukon Territory		Canada Total	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Mallard	29,489		61,064		26,676		0		626		183		249,952	
Black Duck	57		75		16		0		0		0		49,734	
Gadwall	2,811		12,414		531		0		0		0		21,710	
Wigeon	1,485		6,173		5,377		0		178		159		21,286	
Green-winged Teal	1,151		3,870		1,645		0		73		50		40,508	
Blue-winged/Cinnamon Teal	4,069		7,172		219		0		10		6		26,520	
Northern Shoveler	1,648		5,445		644		0		33		27		10,305	
Northern Pintail	3,848		10,366		2,224		0		69		58		24,993	
Wood Duck	68		83		101		0		0		0		65,609	
Redhead	535		2,590		46		0		9		0		11,517	
Canvasback	390		909		59		0		9		4		5,046	
Greater Scaup	36		97		43		0		9		9		6,527	
Lesser Scaup	380		2,571		161		0		83		31		13,139	
Ring-necked Duck	165		698		208		0		36		11		19,957	
Goldeneyes	100		1,007		243		0		16		64		10,809	
Bufflehead	194		1,066		635		0		45		35		8,353	
Ruddy Duck	53		403		20		0		9		0		1,012	
Long-tailed Duck	0		0		5		0		8		0		1,358	
Eiders	0		0		5		0		8		0		8,201	
Scoters	35		79		42		0		35		20		4,801	
Hooded Merganser	115		145		92		0		0		0		5,197	
Other Mergansers	0		188		63		0		22		11		7,302	
Other Ducks	0		0		13		0		0		3		98	
Total Duck Harvest	46,629		116,415		39,068		0		1,278		671		613,934	
.....														
<u>Goose Species Composition</u>														
Canada Goose	56,282		128,121		10,494		0		46		184		541,409	
Snow Goose	11,033		13,525		2,948		0		44		10		83,200	
Blue Goose	0		0		0		0		0		0		0	
Ross's Goose	6,635		1,840		24		0		0		0		9,594	
White-fronted Goose	11,058		20,712		160		0		7		22		32,319	
Brant	0		0		0		0		0		0		191	
Total Goose Harvest	85,008		164,198		13,626		0		97		216		666,713	
.....														
Migratory Bird Permits Sold	9,057		23,153		7,592		83		313		296		149,535	

¹ Note: 2021 estimates were not available at the time this report was released; this table will be updated when estimates are received.

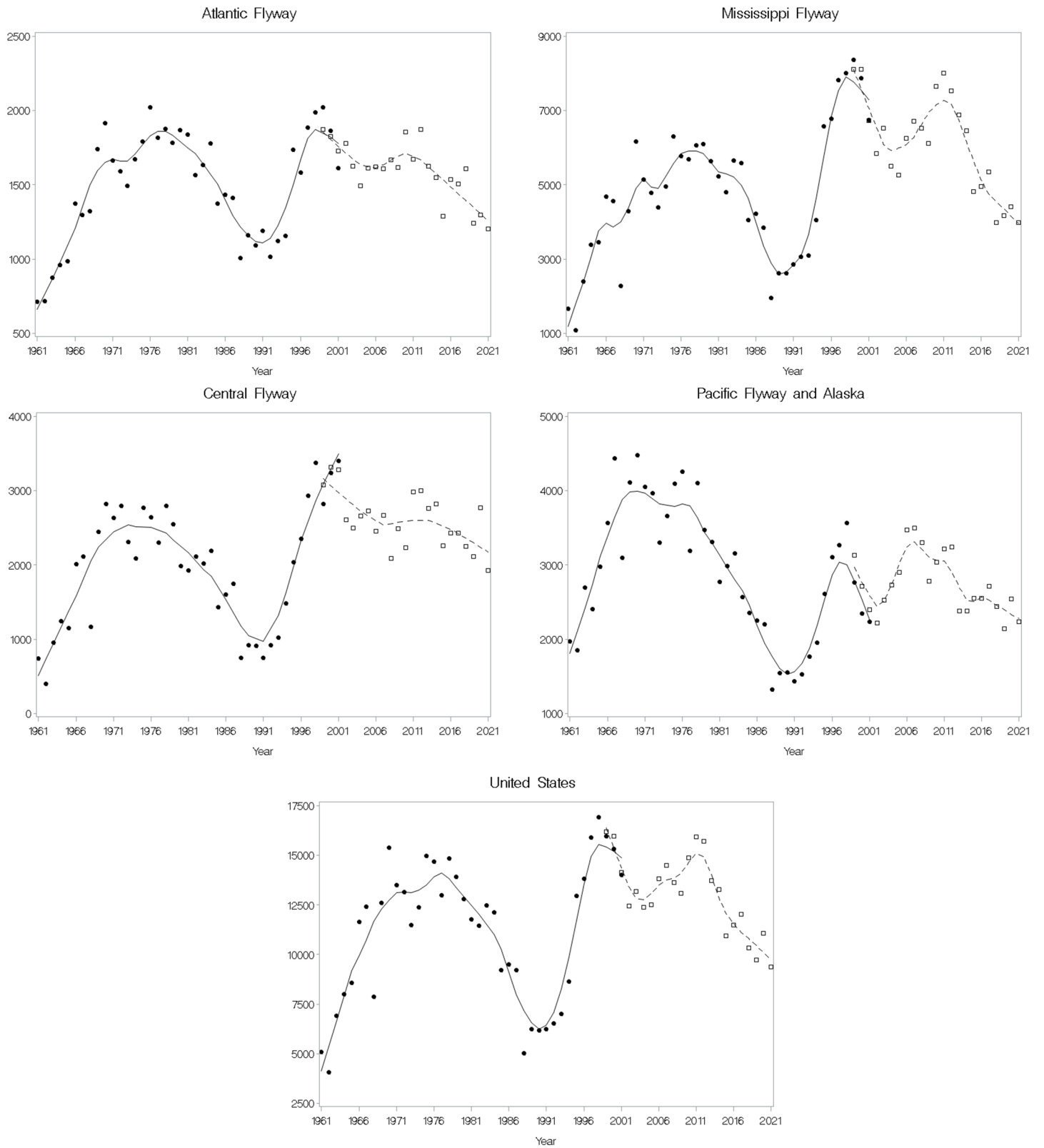


Figure 1. Number of ducks harvested (in thousands) by hunters in the United States, 1961–2021. (Federal Duck Stamp Survey – circles and solid line; HIP survey – squares and dashed line.)

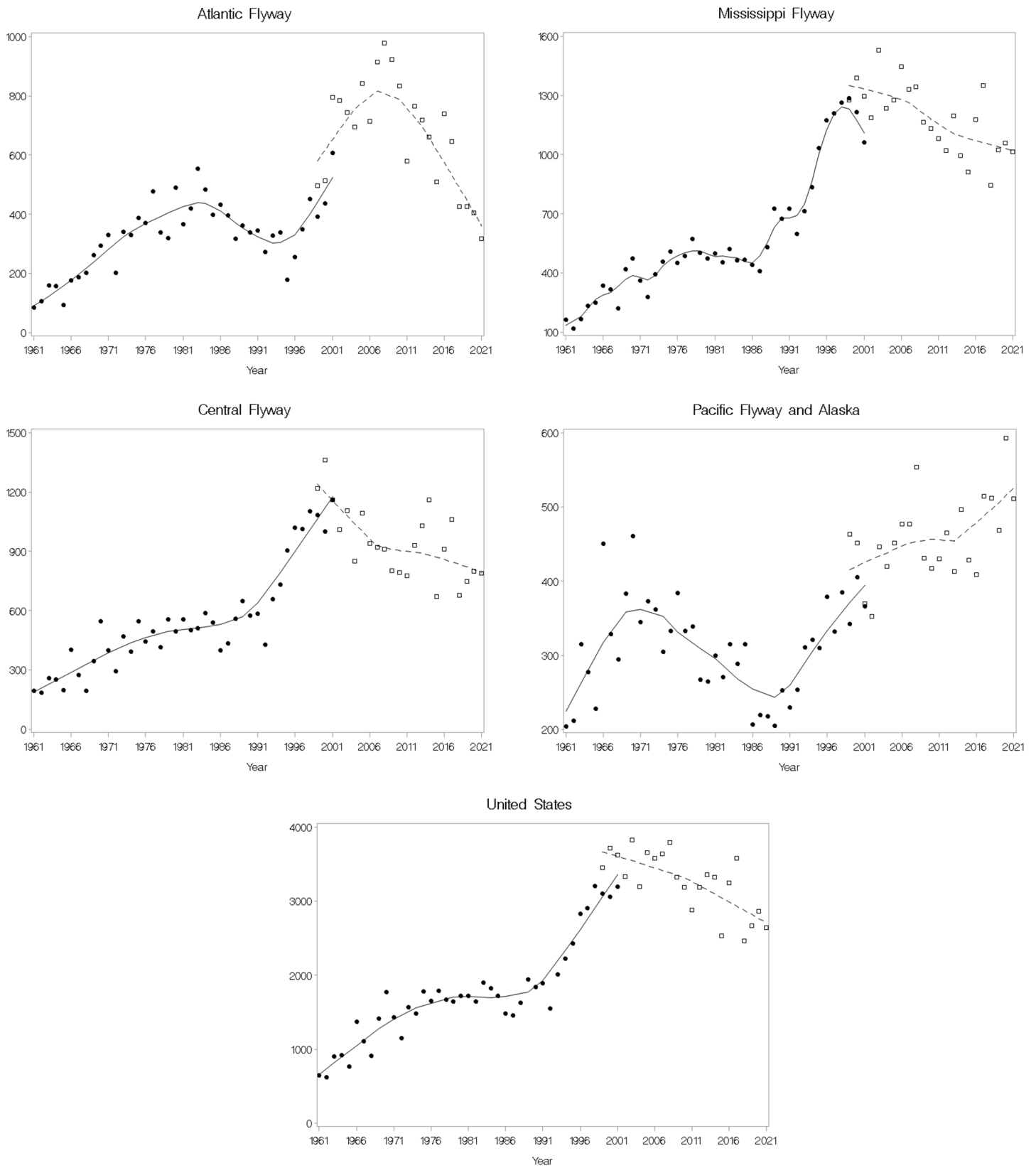


Figure 2. Number of geese harvested (in thousands) by hunters in the United States, 1961–2021. (Federal Duck Stamp Survey – circles and solid line; HIP survey – squares and dashed line.)

Table 8. Preliminary weighted age ratios of mallards in state harvests during the 2017-2021 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult ^a				
	2017	2018	2019	2020	2021
Connecticut	1.2	1.0	1.2	1.0	0.9
Delaware	1.1	1.5	2.8	1.7	1.6
Florida	---	---	---	---	---
Georgia	---	---	0.5	0.6	0.7
Maine	1.9	1.6	1.6	1.3	0.4
Maryland	1.2	1.1	1.1	0.8	1.1
Massachusetts	1.3	1.3	1.0	2.2	1.2
New Hampshire	1.6	2.3	2.4	1.8	0.4
New Jersey	0.9	1.2	1.4	0.7	0.8
New York	1.5	1.6	1.7	1.5	1.3
North Carolina	1.1	0.8	0.8	1.0	0.8
Pennsylvania	1.1	1.0	1.2	1.0	1.1
Rhode Island	1.2	0.9	1.5	1.2	0.6
South Carolina	1.5	1.2	1.2	1.2	2.8
Vermont	1.8	1.6	1.3	1.9	1.4
Virginia	0.8	0.8	0.8	0.8	0.7
West Virginia	0.6	0.8	0.8	0.7	0.7
Atlantic Flyway Total ^b	1.17	1.12	1.19	1.06	0.98
Alabama	0.5	1.1	2.7	1.1	1.3
Arkansas	0.5	0.8	0.7	0.7	0.5
Illinois	1.4	1.3	1.3	1.6	1.1
Indiana	0.7	1.0	1.4	1.4	1.1
Iowa	1.2	2.0	2.0	1.7	1.6
Kentucky	0.5	0.7	1.0	1.0	0.7
Louisiana	0.6	0.7	0.6	0.9	0.5
Michigan	1.3	1.4	1.7	1.9	1.5
Minnesota	2.5	3.0	2.5	3.5	2.0
Mississippi	0.5	0.6	0.7	0.6	0.3
Missouri	1.1	1.2	1.0	1.2	0.9
Ohio	1.1	1.3	1.6	1.4	1.2
Tennessee	0.4	0.8	1.0	1.0	0.5
Wisconsin	2.5	2.2	2.2	2.4	2.5
Mississippi Flyway Total ^b	0.92	1.07	1.05	1.19	0.85

Table 8 (continued). Preliminary weighted age ratios of mallards in state harvests during the 2017-2021 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult ^a				
	2017	2018	2019	2020	2021
Colorado	0.9	0.7	0.9	1.0	0.8
Kansas	0.5	0.6	0.5	0.6	0.5
Montana	0.6	1.1	1.1	0.8	0.6
Nebraska	0.9	0.9	1.1	0.7	0.7
New Mexico	1.1	0.7	2.3	1.2	1.1
North Dakota	1.8	2.2	1.6	1.5	0.8
Oklahoma	0.5	0.4	0.5	0.5	0.4
South Dakota	1.3	1.6	2.0	1.7	1.0
Texas	0.4	0.6	0.7	0.5	0.5
Wyoming	1.2	0.8	0.6	0.6	0.5
Central Flyway Total ^b	0.85	0.90	0.92	0.82	0.59
Arizona	1.2	0.8	1.0	0.8	1.2
California	2.3	1.3	1.7	1.2	0.8
Colorado	3.5	1.4	6.8	3.1	2.4
Idaho	1.0	0.7	0.8	0.7	0.7
Montana	0.9	0.8	0.9	0.8	0.7
Nevada	2.5	1.6	1.6	0.5	0.5
New Mexico	---	---	1.1	0.7	0.4
Oregon	2.0	1.0	1.1	1.1	1.1
Utah	1.3	0.9	1.1	1.0	0.7
Washington	1.5	0.9	1.0	1.2	0.8
Wyoming	1.7	1.5	2.4	1.8	1.4
Pacific Flyway Total ^b	1.56	0.94	1.13	1.02	0.81
Alaska	2.9	1.7	4.7	3.3	2.9
U.S. Total ^b	1.06	1.00	1.06	1.05	0.79

^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 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2017	2018	2019	2020	2021
Mallard					
Atlantic	1.17	1.12	1.19	1.06	0.98
Mississippi	0.92	1.07	1.05	1.19	0.85
Central	0.85	0.90	0.92	0.82	0.59
Pacific	1.56	0.94	1.13	1.02	0.81
U.S. Total	1.06	1.00	1.06	1.05	0.79
Black duck					
Atlantic	0.97	1.13	1.71	1.48	1.31
Mississippi	1.28	0.99	1.76	2.16	1.56
U.S. Total	1.02	1.11	1.72	1.60	1.35
Mottled duck					
Atlantic	2.42	1.91	2.90	2.01	2.01
Mississippi	0.97	2.49	1.06	1.10	1.38
Central	0.77	---	1.64	1.05	1.15
U.S. Total	1.24	2.00	1.65	1.31	1.65
Gadwall					
Atlantic	0.81	0.92	0.71	0.70	0.50
Mississippi	0.79	1.10	1.05	1.06	0.50
Central	1.00	1.10	1.25	1.31	0.57
Pacific	1.54	1.05	1.45	0.92	0.52
U.S. Total	0.94	1.08	1.14	1.12	0.53
American wigeon					
Atlantic	1.09	0.60	1.07	1.00	1.62
Mississippi	1.54	1.97	1.46	1.64	2.29
Central	0.89	0.97	1.15	1.13	1.50
Pacific	1.22	1.16	1.21	1.10	1.19
U.S. Total	1.19	1.12	1.24	1.16	1.39
Green-winged teal					
Atlantic	1.52	1.42	1.78	1.82	1.82
Mississippi	1.50	1.01	1.30	1.80	1.59
Central	1.59	1.36	1.81	1.49	2.01
Pacific	1.09	0.75	1.10	0.83	0.84
U.S. Total	1.38	0.99	1.34	1.33	1.39
Blue-winged/Cinnamon teal					
Atlantic	1.57	0.94	1.31	2.25	1.34
Mississippi	1.75	1.76	1.36	1.58	1.03
Central	1.18	1.59	1.74	1.53	1.44
Pacific	1.09	1.28	0.81	0.71	1.31
U.S. Total	1.45	1.57	1.44	1.54	1.20

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2017	2018	2019	2020	2021
Northern shoveler					
Atlantic	0.95	1.27	0.82	1.09	0.88
Mississippi	1.06	1.17	1.48	1.43	0.89
Central	1.32	1.71	2.64	2.26	1.17
Pacific	1.16	0.92	0.99	1.11	1.09
U.S. Total	1.14	1.14	1.46	1.45	1.04
Northern pintail					
Atlantic	1.31	0.40	1.56	1.84	0.91
Mississippi	1.30	0.89	1.29	1.62	1.60
Central	0.86	1.02	1.38	1.18	1.43
Pacific	0.88	0.62	0.99	0.84	0.79
U.S. Total	1.01	0.72	1.17	1.12	1.15
Wood duck					
Atlantic	1.36	1.38	1.41	0.93	1.25
Mississippi	1.19	1.34	1.45	1.01	0.96
Central	1.63	1.33	1.74	1.12	1.08
Pacific	2.71	1.99	1.53	1.82	1.17
U.S. Total	1.32	1.37	1.46	1.00	1.06
Redhead					
Atlantic	0.76	0.48	0.77	1.01	0.70
Mississippi	1.23	1.08	1.83	2.18	0.82
Central	1.43	1.79	1.81	1.81	0.85
Pacific	1.67	1.27	3.05	1.53	0.58
U.S. Total	1.27	1.17	1.73	1.79	0.76
Canvasback					
Atlantic	0.36	0.18	---	0.60	0.51
Mississippi	0.83	1.04	1.42	1.82	1.19
Central	0.73	0.95	1.22	2.11	0.84
Pacific	1.70	1.04	1.23	1.08	0.99
U.S. Total	0.85	0.73	1.30	1.44	0.99
Greater scaup					
Atlantic	1.21	0.37	0.96	0.75	0.83
Mississippi	2.31	1.44	2.39	1.95	1.61
Central	---	---	0.70	---	---
Pacific	1.19	1.44	1.86	1.27	0.70
U.S. Total	1.50	0.88	1.59	1.27	1.01

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2017	2018	2019	2020	2021
Lesser scaup					
Atlantic	0.91	0.39	0.90	0.76	1.77
Mississippi	1.06	0.52	1.18	0.68	1.38
Central	1.01	0.85	0.89	0.92	1.03
Pacific	1.81	1.52	2.71	2.18	1.40
U.S. Total	1.06	0.62	1.16	0.87	1.36
Ring-necked duck					
Atlantic	2.03	1.33	1.56	1.64	1.62
Mississippi	1.93	1.69	1.47	1.82	1.66
Central	1.48	0.97	1.19	0.97	1.70
Pacific	2.38	1.54	2.93	1.93	3.00
U.S. Total	1.92	1.39	1.55	1.50	1.79
Common goldeneye					
Atlantic	0.61	0.82	0.89	1.12	0.56
Mississippi	0.83	0.92	1.51	0.81	0.66
Central	0.81	0.77	0.95	0.31	0.54
Pacific	0.56	0.94	1.26	0.70	1.18
U.S. Total	0.69	0.90	1.25	0.65	0.73
Bufflehead					
Atlantic	0.89	1.10	1.04	0.98	0.92
Mississippi	0.96	1.16	1.14	0.89	0.96
Central	0.70	0.87	0.95	0.69	0.60
Pacific	1.44	1.26	1.34	1.19	1.10
U.S. Total	0.97	1.11	1.10	0.94	0.93
Ruddy duck					
Atlantic	0.77	0.67	2.99	5.67	---
Mississippi	1.66	5.23	5.00	2.18	---
Central	1.42	1.48	3.25	1.94	---
Pacific	1.23	2.42	2.48	1.24	1.89
U.S. Total	1.12	1.45	3.56	2.27	1.07
Hooded merganser					
Atlantic	0.78	0.87	1.07	1.07	0.91
Mississippi	0.98	1.04	1.38	1.44	1.07
Central	0.51	1.09	0.43	0.83	0.45
Pacific	1.18	0.88	1.94	0.91	3.25
U.S. Total	0.87	0.96	1.24	1.23	1.01

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2017	2018	2019	2020	2021
Common merganser					
Atlantic	0.88	1.46	1.22	1.92	1.42
Mississippi	0.52	---	1.34	0.66	---
Central	---	---	---	---	---
Pacific	1.11	0.73	1.12	2.33	1.68
U.S. Total	0.78	0.85	1.19	1.40	1.25
Red-breasted merganser					
Atlantic	1.06	0.45	1.10	2.45	0.96
Mississippi	0.71	1.33	---	4.28	5.69
U.S. Total	0.96	0.70	0.79	2.03	1.41
Long-tailed duck					
Atlantic	1.62	1.13	1.64	0.44	0.59
Mississippi	0.87	0.48	0.46	0.43	0.75
U.S. Total	0.22	0.69	0.29	0.99	0.13
Common eider					
Atlantic	0.22	0.69	0.29	0.99	0.13
U.S. Total	0.22	0.69	0.31	1.03	0.13
Black scoter					
Atlantic	1.11	0.29	0.25	0.55	0.49
U.S. Total	1.05	0.31	0.26	0.61	0.45
White-winged scoter					
Atlantic	2.40	---	0.60	1.43	1.28
Pacific	---	---	---	---	---
U.S. Total	2.44	2.97	0.87	1.86	1.71
Surf scoter					
Atlantic	0.46	0.17	0.71	0.70	0.34
Pacific	2.05	0.78	0.50	0.22	1.03
U.S. Total	0.44	0.20	0.68	0.64	0.37

^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 2017-2021 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Males per female ^a				
	2017	2018	2019	2020	2021
Connecticut	2.2	2.2	1.4	1.5	2.2
Delaware	1.8	1.9	1.0	1.4	1.5
Florida	---	---	---	---	---
Georgia	---	---	1.4	1.5	1.3
Maine	1.6	2.0	2.4	1.6	2.7
Maryland	2.3	1.9	1.8	2.1	2.0
Massachusetts	2.1	2.1	2.1	1.5	2.2
New Hampshire	1.7	1.4	1.5	1.9	2.7
New Jersey	1.9	2.0	1.6	2.4	2.0
New York	2.1	2.3	2.1	1.9	2.6
North Carolina	1.9	2.2	2.1	2.1	2.4
Pennsylvania	2.0	2.1	1.9	2.1	2.6
Rhode Island	2.0	1.3	2.1	2.0	2.0
South Carolina	1.2	2.1	1.7	1.6	1.6
Vermont	2.0	2.2	1.6	1.9	1.6
Virginia	1.9	2.0	2.0	2.9	2.9
West Virginia	2.7	2.3	2.8	1.4	3.5
Atlantic Flyway Total ^b	1.98	2.06	1.85	2.02	2.24
Alabama	2.2	3.7	2.4	1.8	1.9
Arkansas	3.1	3.6	3.9	4.6	3.9
Illinois	1.9	2.2	2.2	2.4	2.5
Indiana	2.2	1.8	2.3	1.9	3.2
Iowa	1.9	2.4	2.5	1.8	2.1
Kentucky	3.0	2.1	2.2	2.4	3.2
Louisiana	2.2	3.4	4.5	3.7	2.8
Michigan	1.6	1.6	1.8	1.4	1.5
Minnesota	1.9	1.6	1.5	1.4	1.5
Mississippi	3.6	4.9	3.5	5.6	5.9
Missouri	3.2	3.2	4.0	3.5	3.2
Ohio	2.8	2.4	2.0	2.1	2.1
Tennessee	3.2	2.0	3.0	2.0	3.7
Wisconsin	1.8	2.0	2.2	1.7	1.6
Mississippi Flyway Total ^b	2.47	2.59	2.82	2.60	2.80

Table 10 (continued). Preliminary weighted sex ratios of mallards in state harvests during the 2017-2021 hunting seasons as determined from the Waterfowl Parts Collection Survey.

State and Flyway	Males per female ^a				
	2017	2018	2019	2020	2021
Colorado	3.5	3.9	2.7	3.2	3.0
Kansas	4.4	5.4	6.7	5.4	4.7
Montana	2.7	2.3	4.9	3.1	3.5
Nebraska	4.1	4.5	4.5	4.5	4.5
New Mexico	3.9	1.5	2.2	2.1	3.3
North Dakota	2.4	2.3	2.4	2.8	3.1
Oklahoma	3.1	5.0	4.0	4.1	4.1
South Dakota	4.4	5.8	4.1	3.0	3.2
Texas	4.1	4.1	3.6	3.4	3.7
Wyoming	3.7	3.4	4.5	4.1	4.3
Central Flyway Total ^b	3.29	3.58	3.65	3.59	3.84
Arizona	2.0	2.0	2.2	1.7	2.4
California	2.4	2.6	2.6	2.6	2.5
Colorado	2.3	1.7	1.9	1.2	1.7
Idaho	2.9	3.2	2.8	3.3	5.2
Montana	3.1	2.5	3.8	4.6	4.9
Nevada	1.5	1.7	1.6	2.7	1.7
New Mexico	---	---	1.8	2.4	2.5
Oregon	1.9	1.9	2.1	2.3	2.4
Utah	2.6	2.3	2.1	2.5	2.5
Washington	3.2	2.7	2.3	2.3	2.7
Wyoming	2.9	2.4	1.8	2.5	1.3
Pacific Flyway Total ^b	2.53	2.56	2.44	2.67	3.01
Alaska	1.5	1.6	1.4	1.4	1.4
U.S. Total ^b	2.55	2.68	2.74	2.71	2.96

^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 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Males per female ^a				
	2017	2018	2019	2020	2021
Mallard					
Atlantic	1.98	2.06	1.85	2.02	2.24
Mississippi	2.47	2.59	2.82	2.60	2.80
Central	3.29	3.58	3.65	3.59	3.84
Pacific	2.53	2.56	2.44	2.67	3.01
U.S. Total	2.55	2.68	2.74	2.71	2.96
Black duck					
Atlantic	1.12	1.04	1.01	1.09	1.05
Mississippi	1.06	1.15	0.71	0.62	1.17
U.S. Total	1.11	1.05	0.93	0.97	1.06
Mottled duck					
Atlantic	1.17	1.32	0.70	1.18	0.91
Mississippi	1.30	0.90	1.25	0.56	1.41
Central	1.30	---	1.64	0.87	1.42
U.S. Total	1.25	1.10	1.04	0.81	1.10
Gadwall					
Atlantic	1.65	2.31	2.30	1.91	2.38
Mississippi	1.96	1.70	1.81	2.09	2.17
Central	1.79	1.73	1.65	1.82	2.09
Pacific	1.73	1.67	1.70	1.92	2.43
U.S. Total	1.86	1.74	1.76	1.95	2.19
American wigeon					
Atlantic	1.78	1.71	2.58	1.92	1.45
Mississippi	1.41	1.36	1.24	1.47	1.24
Central	1.58	1.80	1.82	1.73	1.74
Pacific	1.56	1.54	1.55	1.66	1.66
U.S. Total	1.54	1.56	1.57	1.65	1.59
Green-winged teal					
Atlantic	1.45	1.27	1.21	1.54	1.37
Mississippi	1.80	1.89	1.88	1.93	2.11
Central	1.94	1.72	1.87	1.95	1.74
Pacific	1.92	1.82	1.91	1.70	1.56
U.S. Total	1.83	1.76	1.83	1.82	1.76
Blue-winged/Cinnamon teal					
Atlantic	1.44	1.40	1.31	1.53	1.07
Mississippi	1.20	1.30	1.40	1.41	1.24
Central	1.66	1.55	1.37	1.51	1.30
Pacific	1.30	0.97	1.41	1.64	1.36
U.S. Total	1.38	1.39	1.38	1.46	1.25

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Males per female ^a				
	2017	2018	2019	2020	2021
Northern shoveler					
Atlantic	1.56	1.33	1.40	1.82	2.16
Mississippi	1.85	1.92	1.68	1.83	1.70
Central	1.41	1.37	1.31	1.42	1.65
Pacific	1.84	1.76	1.79	1.64	1.72
U.S. Total	1.73	1.69	1.58	1.63	1.71
Northern pintail					
Atlantic	1.45	2.43	2.18	1.70	1.46
Mississippi	1.92	2.40	2.50	2.16	1.81
Central	1.91	2.08	2.05	2.20	2.00
Pacific	2.96	3.06	3.28	3.28	2.74
U.S. Total	2.24	2.66	2.67	2.52	2.12
Wood duck					
Atlantic	1.91	1.95	2.11	2.14	2.26
Mississippi	1.73	2.02	2.00	1.92	2.05
Central	1.88	2.62	2.38	2.29	1.87
Pacific	1.44	1.49	2.41	2.10	1.81
U.S. Total	1.80	2.01	2.08	2.03	2.10
Redhead					
Atlantic	1.65	1.58	1.42	1.12	2.10
Mississippi	1.97	1.85	1.37	1.37	1.85
Central	1.23	1.43	1.60	1.36	1.39
Pacific	1.67	1.72	1.45	1.40	2.01
U.S. Total	1.51	1.62	1.50	1.35	1.73
Canvasback					
Atlantic	0.78	1.44	---	1.08	1.62
Mississippi	1.84	2.09	1.66	1.15	1.24
Central	1.28	1.33	1.25	1.30	0.56
Pacific	1.15	1.18	1.63	1.07	1.27
U.S. Total	1.36	1.52	1.50	1.15	1.10
Greater scaup					
Atlantic	1.56	1.18	1.24	1.07	1.31
Mississippi	1.24	1.42	1.26	2.79	1.12
Central	---	---	2.00	---	---
Pacific	1.74	2.28	1.43	1.19	1.35
U.S. Total	1.51	1.40	1.31	1.57	1.24

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Males per female ^a				
	2017	2018	2019	2020	2021
Lesser scaup					
Atlantic	2.32	4.43	2.00	2.83	2.54
Mississippi	2.23	2.28	1.78	2.25	1.56
Central	2.20	1.74	2.37	1.85	1.62
Pacific	1.20	1.49	1.15	1.09	1.26
U.S. Total	2.13	2.31	1.86	1.99	1.60
Ring-necked duck					
Atlantic	1.45	1.76	1.47	1.47	1.21
Mississippi	2.03	1.70	2.00	2.05	1.88
Central	1.95	1.62	2.24	2.21	2.34
Pacific	1.65	1.27	2.20	1.49	1.93
U.S. Total	1.83	1.64	1.95	1.86	1.76
Common goldeneye					
Atlantic	1.28	0.82	1.52	0.98	1.46
Mississippi	1.25	1.46	1.41	1.36	1.87
Central	1.43	1.88	0.90	1.67	1.64
Pacific	1.79	1.24	2.01	2.40	1.39
U.S. Total	1.44	1.34	1.57	1.74	1.62
Bufflehead					
Atlantic	2.09	1.38	1.81	1.95	1.92
Mississippi	1.46	1.26	1.23	1.65	1.20
Central	1.36	1.61	1.47	1.68	1.33
Pacific	1.31	1.27	1.33	1.66	1.20
U.S. Total	1.61	1.34	1.46	1.74	1.40
Hooded merganser					
Atlantic	2.24	1.54	2.46	2.57	2.23
Mississippi	1.81	1.81	2.21	2.11	2.14
Central	3.27	2.24	---	7.89	6.92
Pacific	1.88	1.48	3.16	2.15	---
U.S. Total	2.07	1.72	2.37	2.52	2.34
Common merganser					
Atlantic	1.57	1.23	0.75	0.58	0.81
Mississippi	0.91	---	0.78	0.99	---
Central	---	---	---	---	---
Pacific	0.99	1.16	0.84	1.03	1.12
U.S. Total	1.19	1.04	0.78	0.69	0.97

^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 2017-2021 hunting seasons, by species and flyway, from the Waterfowl Parts Collection Survey.

Species and Flyway	Immatures per adult ^{a, b}				
	2017	2018	2019	2020	2021
Canada goose					
Atlantic	0.50	0.24	0.41	0.48	0.40
Mississippi	0.41	0.32	0.36	0.37	0.36
Central	0.49	0.28	0.35	0.46	0.41
Pacific	0.51	0.39	0.35	0.36	0.28
U.S. Total	0.46	0.30	0.37	0.41	0.37
Snow goose					
Atlantic	1.41	0.05	0.50	0.55	0.30
Mississippi	0.77	0.19	0.46	0.17	0.55
Central	0.56	0.08	0.36	0.23	0.27
Pacific	0.81	0.39	0.87	0.54	0.61
U.S. Total	0.69	0.22	0.56	0.35	0.46
Blue goose					
Atlantic	---	---	1.59	---	---
Mississippi	1.24	0.23	0.20	0.30	0.22
Central	0.79	0.06	0.82	0.44	0.45
U.S. Total	0.98	0.13	0.65	0.39	0.33
Ross' goose					
Mississippi	1.48	---	1.25	---	0.95
Central	0.79	0.11	0.97	0.53	0.77
Pacific	0.86	0.29	0.71	1.78	1.51
U.S. Total	0.96	0.16	0.92	0.88	1.06
Greater white-fronted goose					
Mississippi	0.64	0.24	0.63	0.44	0.57
Central	0.56	0.29	0.56	0.46	0.37
Pacific	0.29	0.44	0.55	0.56	0.50
U.S. Total	0.53	0.31	0.60	0.49	0.52
Brant					
Atlantic	0.35	0.02	0.20	0.26	0.14
Pacific	0.25	1.12	---	0.91	0.30
U.S. Total	0.34	0.07	0.29	0.33	0.32

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

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

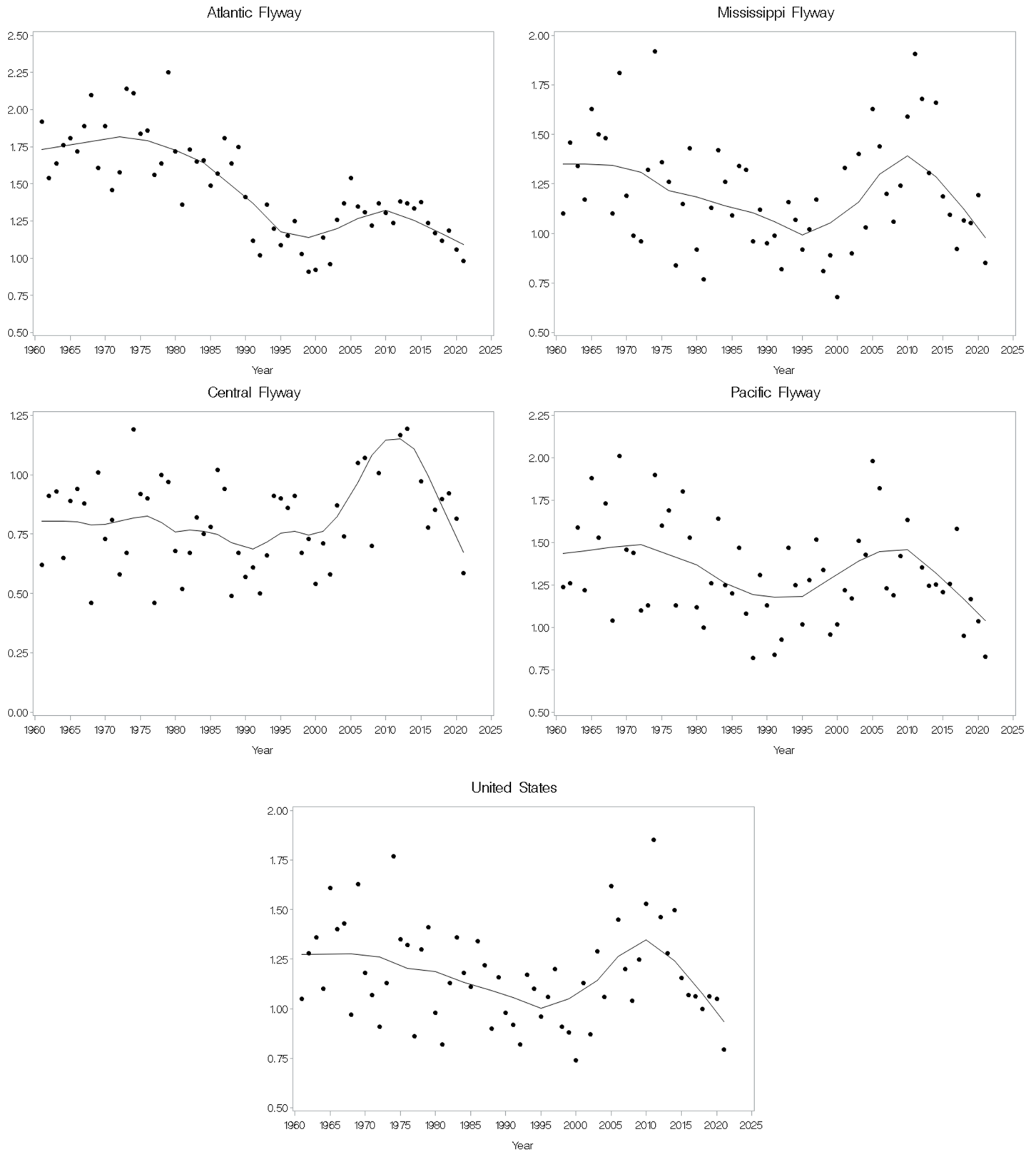


Figure 3. Age ratios of mallard harvested in the United States, 1961-2021.

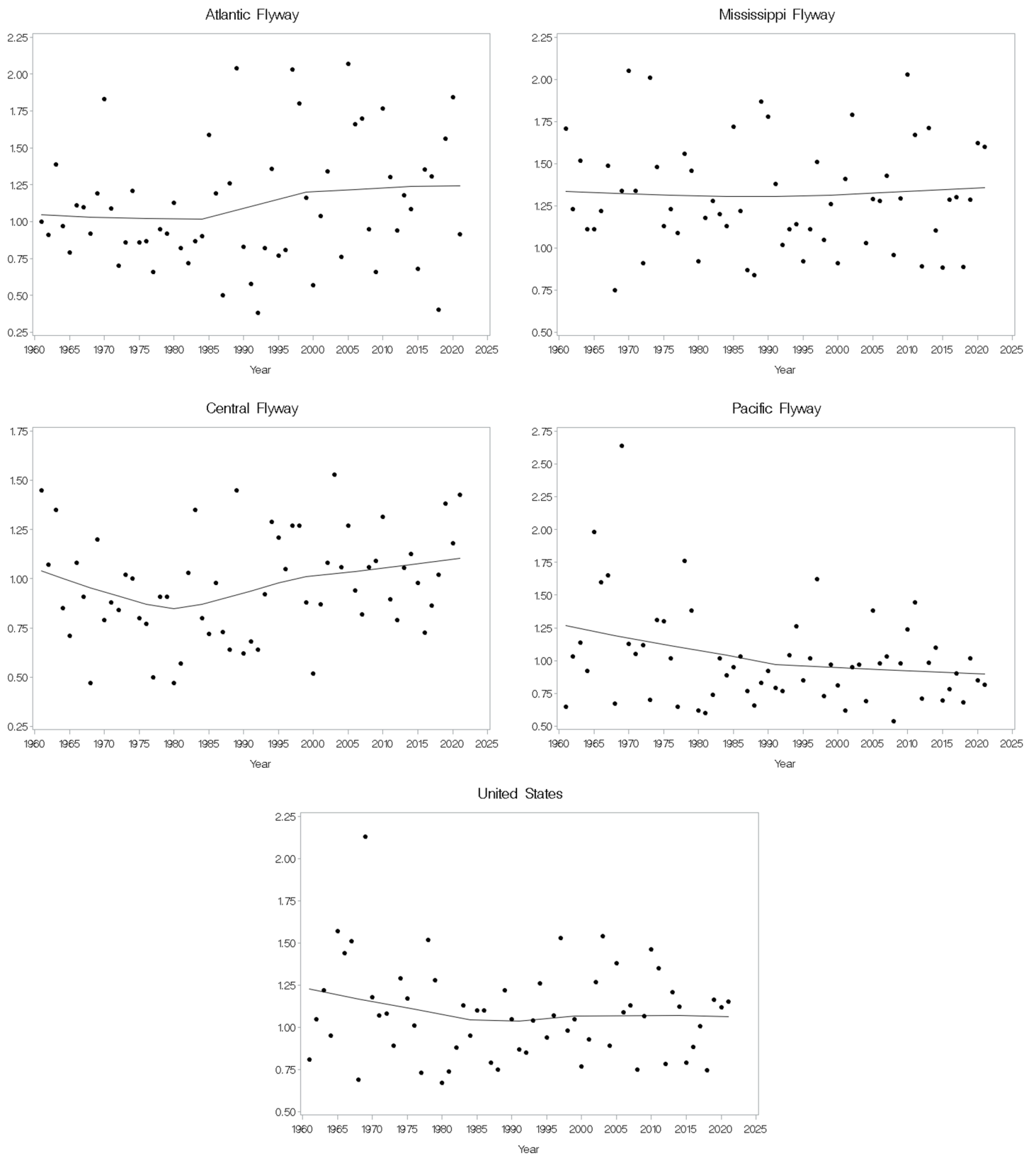


Figure 4. Age ratios of northern pintails harvested in the United States, 1961–2021.

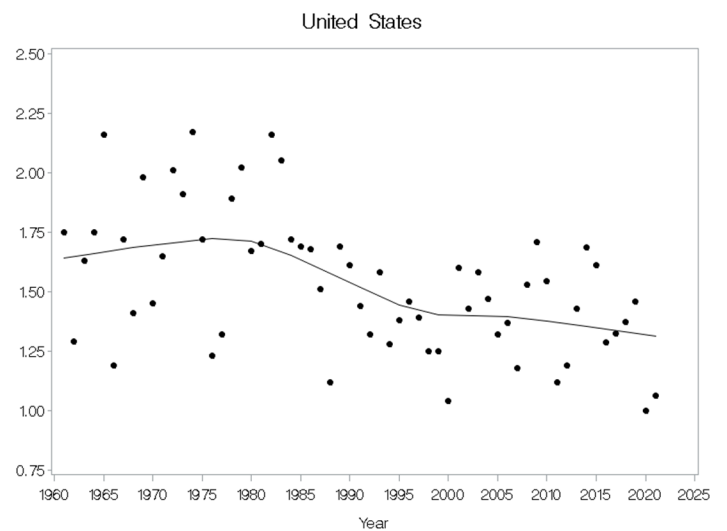
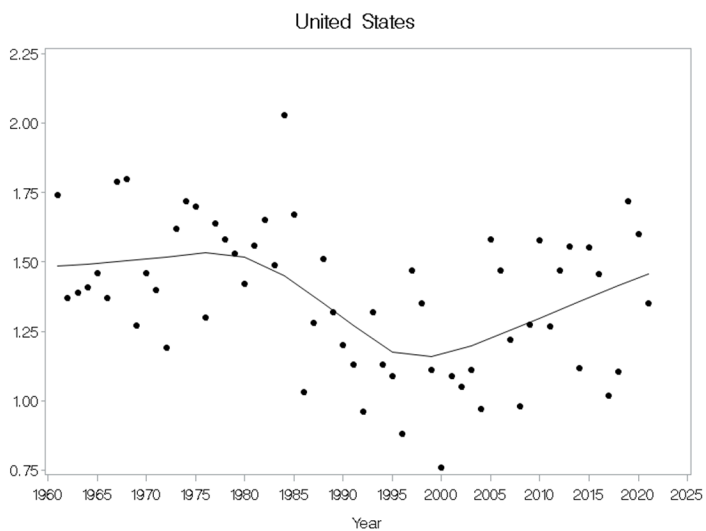
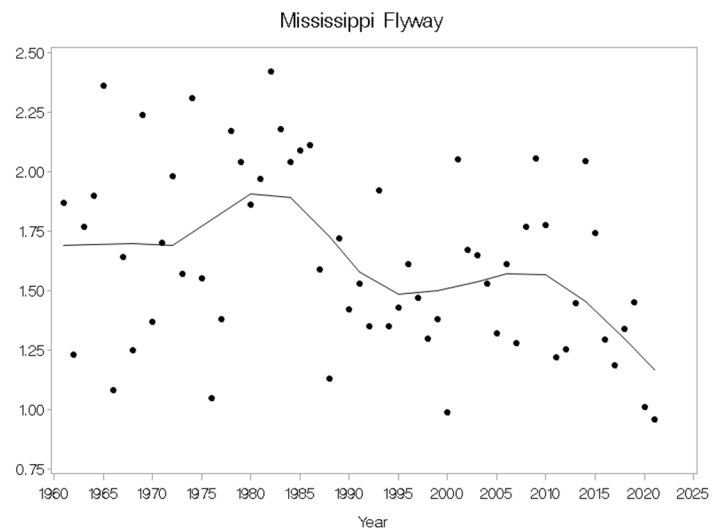
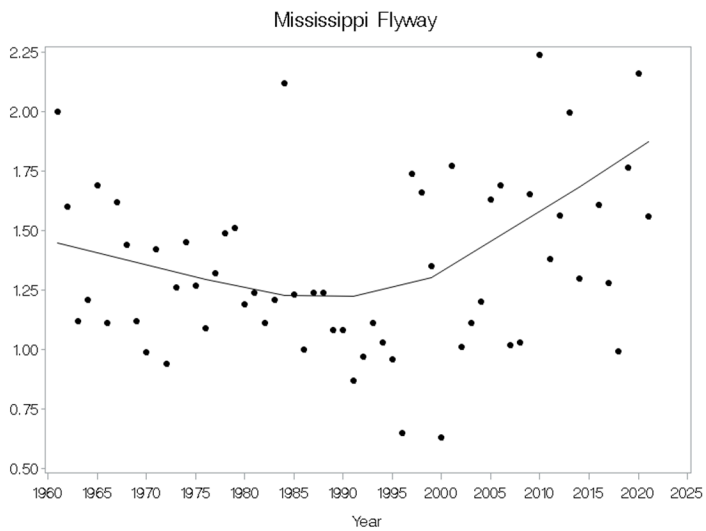
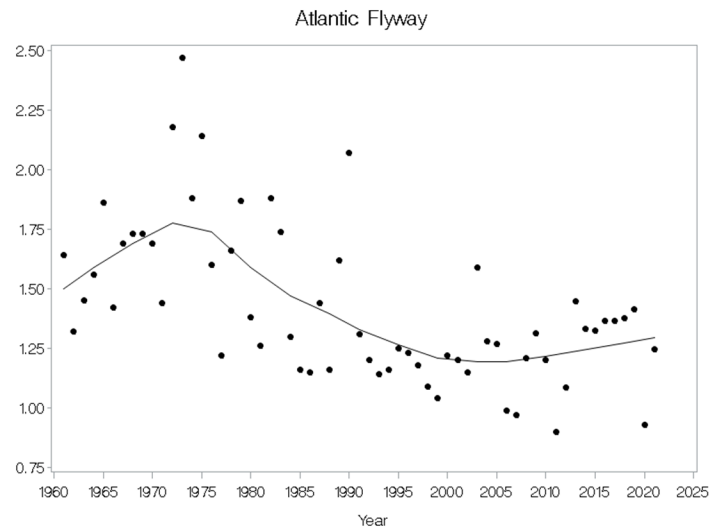
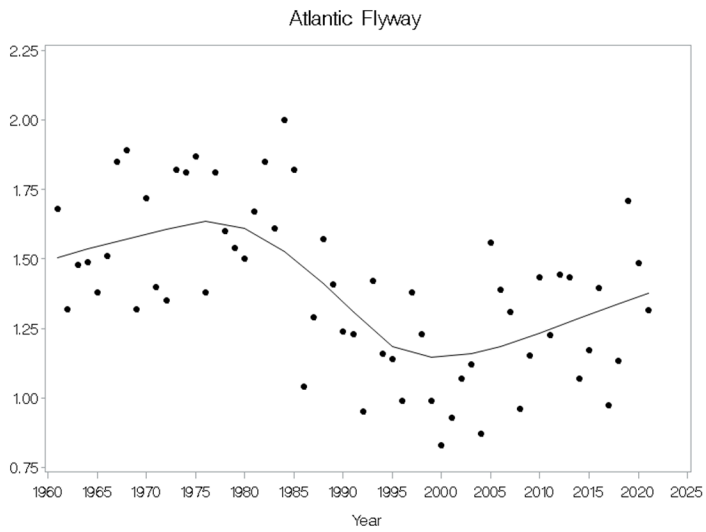


Figure 5. Age ratios of American black ducks (left column) and wood ducks (right column) harvested in the United States, 1961–2021.

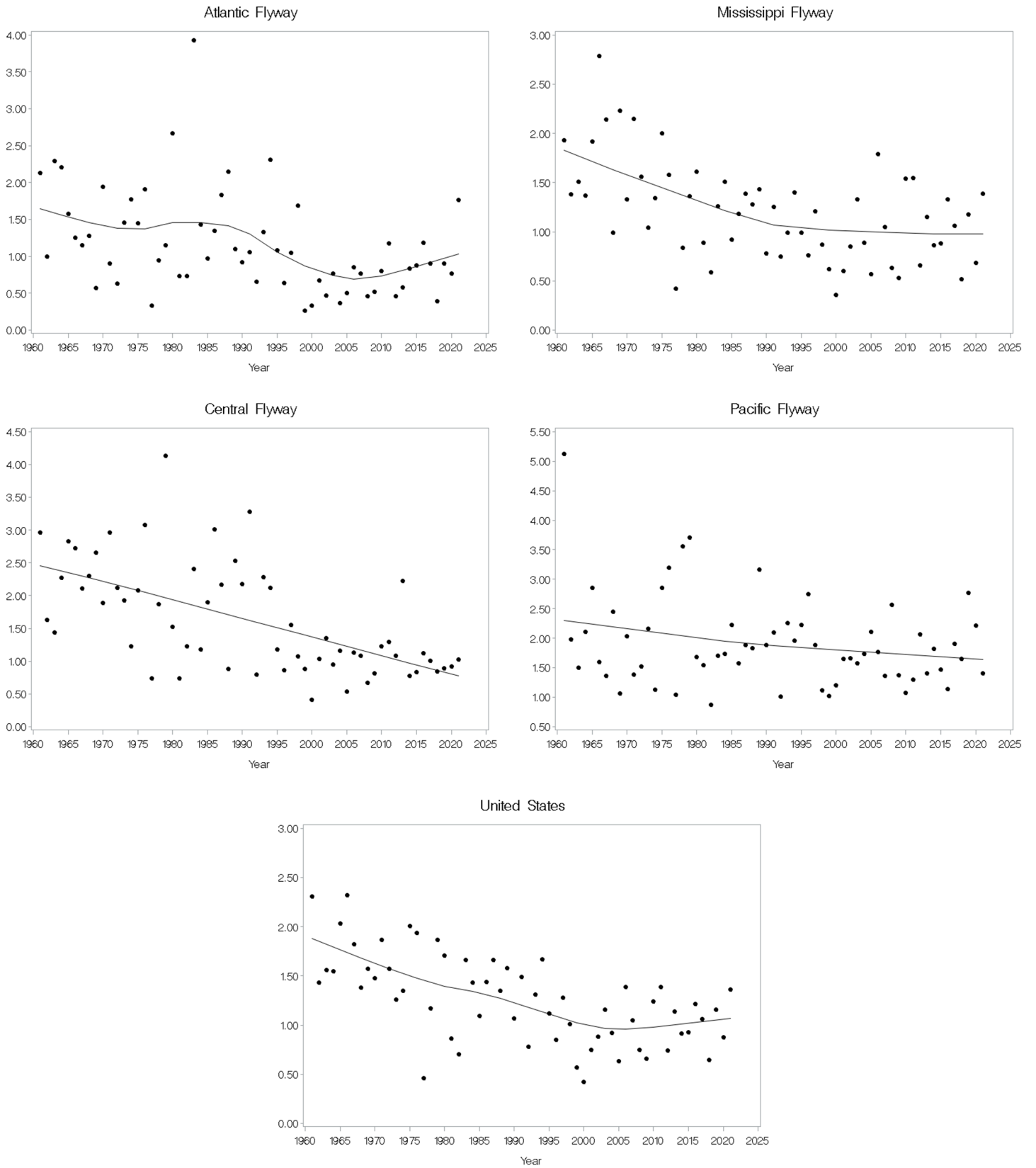


Figure 6. Age ratios of lesser scaup harvested in the United States, 1961-2021.

Table 13. Preliminary estimates of mourning dove harvest and hunter activity during the 2020 and 2021 hunting seasons. ¹

	Mourning Dove Harvest		Active Hunters ²		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Alabama	617,800 ± 28%	456,200 ± 26%	36,200 ± 12%	32,500 ± 19%	97,700 ± 23%	65,800 ± 21%	17.1 ± 30%	14.0 ± 33%
Delaware	8,700 ± 51%	21,500 ± 42%	1,700 ± 38%	1,600 ± 29%	4,800 ± 66%	4,500 ± 42%	5.2 ± 63%	13.2 ± 51%
Florida	149,300 ± 75%	110,200 ± 49%	8,700 ± 42%	7,200 ± 43%	31,900 ± 64%	21,200 ± 40%	17.1 ± 86%	15.2 ± 66%
Georgia	856,500 ± 18%	620,300 ± 19%	39,300 ± 14%	37,000 ± 16%	112,400 ± 19%	84,600 ± 16%	21.8 ± 23%	16.8 ± 25%
Illinois	171,500 ± 38%	150,600 ± 33%	14,200 ± 31%	11,800 ± 28%	30,900 ± 30%	23,800 ± 27%	12.0 ± 49%	12.8 ± 43%
Indiana	177,300 ± 34%	176,000 ± 34%	11,400 ± 24%	9,000 ± 31%	30,700 ± 29%	29,100 ± 34%	15.6 ± 41%	19.7 ± 46%
Kentucky	282,200 ± 22%	376,100 ± 22%	13,300 ± 25%	12,100 ± 8%	37,900 ± 22%	41,800 ± 19%	21.2 ± 34%	31.0 ± 23%
Louisiana	183,700 ± 35%	110,300 ± 34%	10,000 ± 33%	7,500 ± 23%	23,500 ± 31%	19,200 ± 29%	18.4 ± 48%	14.7 ± 41%
Maryland	77,800 ± 27%	89,200 ± 35%	5,700 ± 25%	6,000 ± 34%	15,900 ± 41%	13,000 ± 35%	13.6 ± 37%	14.9 ± 48%
Mississippi	214,600 ± 22%	130,400 ± 35%	15,300 ± 18%	10,900 ± 26%	28,400 ± 18%	19,900 ± 29%	14.0 ± 29%	12.0 ± 43%
North Carolina	573,800 ± 25%	549,300 ± 22%	42,400 ± 21%	37,100 ± 21%	106,400 ± 26%	81,400 ± 20%	13.5 ± 33%	14.8 ± 30%
Ohio	132,200 ± 35%	154,500 ± 35%	10,500 ± 26%	12,800 ± 31%	41,200 ± 35%	32,400 ± 36%	12.6 ± 43%	12.0 ± 47%
Pennsylvania	110,400 ± 33%	54,500 ± 47%	14,000 ± 30%	9,200 ± 60%	44,800 ± 36%	38,100 ± 94%	7.9 ± 45%	5.9 ± 76%
Rhode Island	400 ± 69%	1,000 ± 107%	100 ± 65%	300 ± 79%	400 ± 40%	1,400 ± 78%	3.0 ± 94%	3.4 ± 133%
South Carolina	353,200 ± 30%	347,600 ± 35%	21,500 ± 25%	20,900 ± 32%	48,400 ± 26%	50,100 ± 36%	16.5 ± 39%	16.6 ± 48%
Tennessee	467,200 ± 33%	204,400 ± 52%	26,000 ± 22%	18,400 ± 39%	69,400 ± 28%	36,700 ± 42%	17.9 ± 40%	11.1 ± 65%
Virginia	213,500 ± 21%	208,000 ± 18%	16,200 ± 18%	15,900 ± 22%	42,500 ± 27%	37,000 ± 21%	13.2 ± 27%	13.1 ± 28%
West Virginia	7,900 ± 33%	10,400 ± 32%	1,000 ± 27%	1,000 ± 25%	2,600 ± 37%	2,700 ± 32%	8.0 ± 43%	10.6 ± 41%
Wisconsin	50,400 ± 41%	51,500 ± 39%	6,300 ± 39%	5,800 ± 43%	22,900 ± 43%	21,500 ± 41%	8.0 ± 57%	8.9 ± 58%
Eastern Unit Total	4,648,300 ± 8%	3,822,100 ± 8%	293,800	256,800	792,700 ± 8%	624,300 ± 9%		
Arkansas	320,300 ± 27%	181,300 ± 32%	20,000 ± 23%	15,500 ± 26%	47,600 ± 30%	31,200 ± 29%	16.1 ± 36%	11.7 ± 41%
Colorado	124,600 ± 19%	122,900 ± 22%	12,700 ± 15%	9,800 ± 16%	27,200 ± 18%	25,700 ± 23%	9.8 ± 24%	12.6 ± 27%
Iowa	104,600 ± 17%	61,400 ± 32%	9,700 ± 14%	7,500 ± 25%	25,000 ± 19%	20,900 ± 38%	10.8 ± 22%	8.2 ± 40%
Kansas	366,000 ± 32%	400,200 ± 22%	22,800 ± 21%	25,500 ± 19%	62,800 ± 28%	64,600 ± 21%	16.0 ± 39%	15.7 ± 29%
Minnesota	63,100 ± 88%	22,600 ± 57%	7,000 ± 63%	4,200 ± 92%	23,800 ± 64%	9,700 ± 57%	9.0 ± 108%	5.4 ± 108%
Missouri	318,400 ± 25%	259,700 ± 30%	24,300 ± 14%	19,800 ± 20%	63,600 ± 21%	51,300 ± 24%	13.1 ± 28%	13.1 ± 36%
Montana	32,900 ± 78%	18,400 ± 47%	2,200 ± 44%	2,100 ± 41%	6,600 ± 56%	4,700 ± 48%	14.9 ± 90%	8.8 ± 62%
Nebraska	159,900 ± 20%	148,000 ± 21%	12,400 ± 19%	10,400 ± 21%	33,600 ± 25%	27,000 ± 22%	12.9 ± 27%	14.3 ± 30%
New Mexico	147,400 ± 22%	151,800 ± 34%	10,600 ± 13%	11,500 ± 24%	37,000 ± 18%	33,700 ± 29%	13.9 ± 25%	13.2 ± 42%

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	<u>Mourning Dove Harvest</u>		<u>Active Hunters ²</u>		<u>Mourning Dove Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2020	2021	2020	2021	2020	2021	2020	2021
North Dakota	75,400 ± 30%	91,500 ± 34%	4,500 ± 25%	5,500 ± 31%	13,900 ± 40%	20,100 ± 33%	16.8 ± 39%	16.5 ± 46%
Oklahoma	339,600 ± 23%	212,900 ± 33%	19,000 ± 19%	14,800 ± 27%	58,200 ± 30%	38,100 ± 25%	17.9 ± 29%	14.4 ± 43%
South Dakota	92,800 ± 31%	88,200 ± 38%	6,000 ± 24%	5,400 ± 32%	14,500 ± 22%	12,300 ± 28%	15.5 ± 40%	16.2 ± 49%
Texas	3,729,300 ± 16%	2,467,700 ± 17%	216,100 ± 13%	170,300 ± 15%	754,800 ± 20%	532,500 ± 18%	17.3 ± 20%	14.5 ± 23%
Wyoming	11,300 ± 40%	10,000 ± 51%	1,000 ± 39%	1,200 ± 41%	2,300 ± 43%	2,900 ± 55%	10.8 ± 56%	8.1 ± 65%
Central Unit Total	5,885,700 ± 11%	4,236,600 ± 11%	368,200	303,500	1,171,000 ± 13%	874,700 ± 11%		
Arizona	355,900 ± 11%	308,600 ± 15%	17,400 ± 7%	17,900 ± 9%	54,100 ± 10%	50,500 ± 12%	20.4 ± 13%	17.2 ± 18%
California	684,500 ± 15%	660,400 ± 19%	47,800 ± 10%	42,400 ± 15%	117,900 ± 13%	108,500 ± 21%	14.3 ± 18%	15.6 ± 25%
Idaho	32,700 ± 45%	83,000 ± 50%	3,800 ± 44%	8,600 ± 36%	9,900 ± 49%	17,600 ± 40%	8.6 ± 62%	9.7 ± 62%
Nevada	7,600 ± 54%	19,600 ± 51%	800 ± 32%	1,900 ± 40%	1,900 ± 50%	4,300 ± 37%	10.0 ± 63%	10.3 ± 65%
Oregon	19,500 ± 41%	20,300 ± 66%	3,100 ± 36%	3,400 ± 40%	17,200 ± 109%	11,200 ± 45%	6.2 ± 55%	6.0 ± 77%
Utah	26,400 ± 30%	20,300 ± 46%	6,300 ± 26%	4,900 ± 34%	13,300 ± 32%	9,300 ± 38%	4.2 ± 40%	4.2 ± 57%
Washington	43,500 ± 29%	31,100 ± 32%	4,400 ± 21%	3,400 ± 26%	11,700 ± 26%	9,700 ± 37%	10.0 ± 36%	9.1 ± 41%
Western Unit Total	1,170,100 ± 9%	1,143,300 ± 12%	83,600	82,500	226,100 ± 11%	211,000 ± 12%		
United States Total	11,704,100 ± 6%	9,202,100 ± 6%	745,600	642,800	2,189,800 ± 8%	1,710,000 ± 7%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	<u>White-winged Dove Harvest</u>		<u>Active Hunters ²</u>		<u>White-winged Dove Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2020	2021	2020	2021	2020	2021	2020	2021
Alabama	15,400 ± 149%	0	1,500 ± 77%	600 ± 196%	7,600 ± 114%	1,300 ± 196%	10.1 ± 167%	0
Delaware	0	0	0	0	0	0	0	0
Florida	8,200 ± 143%	4,900 ± 117%	2,200 ± 94%	700 ± 86%	11,300 ± 151%	2,100 ± 91%	3.8 ± 171%	7.1 ± 146%
Georgia	2,100 ± 118%	0	400 ± 115%	1,800 ± 107%	1,500 ± 113%	2,300 ± 103%	4.8 ± 165%	0
Louisiana	4,400 ± 90%	3,700 ± 88%	1,500 ± 93%	600 ± 86%	3,000 ± 66%	2,600 ± 102%	2.9 ± 129%	6.4 ± 123%
Maryland	0	0	0	0	0	0	0	0
Mississippi	900 ± 123%	900 ± 167%	1,000 ± 83%	800 ± 131%	2,300 ± 87%	1,200 ± 119%	0.9 ± 149%	1.2 ± 213%
North Carolina	0	100 ± 195%	0	300 ± 141%	0	1,300 ± 167%	0	0.4 ± 241%
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	0	9,600 ± 70%	0	4,800 ± %	0	10,700 ± 50%	0	0
Colorado	3,000 ± 92%	500 ± 135%	2,200 ± 46%	1,000 ± 61%	4,300 ± 52%	1,900 ± 65%	1.4 ± 103%	0.5 ± 149%
Kansas	200 ± 137%	1,300 ± 102%	1,900 ± 96%	1,100 ± 88%	2,400 ± 106%	2,400 ± 93%	0.1 ± 167%	1.2 ± 135%
New Mexico	82,300 ± 31%	63,100 ± 66%	6,200 ± 18%	7,000 ± 34%	23,600 ± 25%	23,600 ± 46%	13.2 ± 35%	9.0 ± 75%
Oklahoma	10,400 ± 61%	4,000 ± 124%	2,600 ± 52%	2,300 ± 84%	7,700 ± 62%	6,600 ± 63%	4.0 ± 80%	1.7 ± 150%
Texas	939,600 ± 22%	1,267,500 ± 37%	121,100 ± 18%	96,400 ± 22%	469,800 ± 32%	333,500 ± 29%	7.8 ± 29%	13.1 ± 44%
Central Unit Total	1,035,500 ± 20%	1,336,400 ± 36%	134,100	107,800	507,800 ± 30%	368,000 ± 26%		
Arizona	54,900 ± 15%	51,400 ± 22%	9,600 ± 10%	10,300 ± 14%	27,700 ± 14%	25,700 ± 17%	5.7 ± 19%	5.0 ± 26%
California	39,800 ± 57%	32,500 ± 53%	9,900 ± 24%	9,900 ± 36%	22,400 ± 28%	23,100 ± 40%	4.0 ± 62%	3.3 ± 64%
Nevada	600 ± 117%	0	200 ± 85%	200 ± 161%	300 ± 100%	400 ± 176%	3.1 ± 145%	0
Utah	300 ± 192%	0	1,100 ± 76%	700 ± 107%	1,800 ± 80%	1,900 ± 126%	0.3 ± 206%	0
Western Unit Total	95,600 ± 25%	83,900 ± 25%	20,700	21,100	52,200 ± 14%	51,000 ± 21%		
United States Total	1,162,600 ± 18%	1,429,900 ± 33%	162,300	133,700	588,200 ± 26%	429,800 ± 23%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	<u>Band-tailed Pigeon Harvest</u>		<u>Active Hunters ²</u>		<u>Band-tailed Pigeon Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2020	2021	2020	2021	2020	2021	2020	2021
Arizona	100 ± 97%	100 ± 150%	400 ± 83%	300 ± 139%	1,400 ± 93%	1,000 ± 135%	0.2 ± 128%	0.4 ± 205%
Colorado	<50 ± 97%	<50 ± 115%	<50 ± 33%	100 ± 34%	100 ± 40%	100 ± 44%	0.1 ± 103%	0.6 ± 120%
New Mexico	200 ± 80%	100 ± 58%	100 ± 22%	100 ± 34%	400 ± 31%	300 ± 54%	2.0 ± 83%	1.0 ± 68%
Utah	<50 ± 120%	<50 ± 97%	<50 ± 36%	<50 ± 44%	100 ± 56%	100 ± 60%	1.3 ± 125%	0.5 ± 107%
Inter Total	300 ± 58%	300 ± 68%	500	500	1,900 ± 68%	1,500 ± 92%		
California	4,800 ± 65%	3,500 ± 105%	2,100 ± 53%	2,200 ± 71%	3,700 ± 50%	4,400 ± 64%	2.2 ± 84%	1.6 ± 127%
Oregon	1,100 ± 38%	1,900 ± 36%	400 ± 19%	500 ± 16%	1,000 ± 30%	1,500 ± 26%	2.9 ± 42%	3.8 ± 40%
Washington	300 ± 48%	200 ± 70%	200 ± 27%	100 ± 36%	400 ± 34%	300 ± 42%	1.6 ± 55%	1.7 ± 79%
Pacific Coast Total	6,100 ± 51%	5,600 ± 67%	2,600	2,800	5,000 ± 37%	6,300 ± 46%		
United States Total	6,400 ± 49%	5,900 ± 64%	3,200	3,400	6,900 ± 33%	7,800 ± 41%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Woodcock Harvest		Active Woodcock Hunters ²		Woodcock Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Connecticut	500 ± 57%	500 ± 64%	500 ± 38%	500 ± 60%	1,800 ± 35%	2,700 ± 53%	1.1 ± 68%	1.0 ± 88%
Delaware	500 ± 72%	300 ± 159%	400 ± 84%	300 ± 121%	1,100 ± 65%	1,600 ± 161%	1.3 ± 110%	0.9 ± 200%
Florida	0	0	2,400 ± 189%	0	2,900 ± 160%	0	0	0
Georgia	900 ± 95%	2,100 ± 164%	300 ± 65%	2,400 ± 144%	1,800 ± 82%	9,900 ± 140%	3.0 ± 115%	0.9 ± 218%
Maine	9,600 ± 25%	19,600 ± 91%	5,500 ± 29%	6,900 ± 40%	24,700 ± 33%	35,600 ± 48%	1.7 ± 39%	2.8 ± 99%
Maryland	800 ± 101%	400 ± 56%	900 ± 116%	100 ± 52%	1,400 ± 79%	400 ± 62%	0.9 ± 153%	4.2 ± 76%
Massachusetts	2,500 ± 41%	1,100 ± 80%	1,600 ± 27%	800 ± 58%	9,000 ± 29%	3,000 ± 48%	1.5 ± 49%	1.5 ± 98%
New Hampshire	4,000 ± 52%	5,900 ± 81%	2,400 ± 35%	2,600 ± 47%	11,400 ± 44%	16,000 ± 56%	1.7 ± 62%	2.3 ± 94%
New Jersey	2,600 ± 105%	1,700 ± 74%	900 ± 59%	1,300 ± 66%	5,900 ± 83%	5,000 ± 76%	2.9 ± 120%	1.4 ± 99%
New York	5,600 ± 56%	13,000 ± 104%	3,200 ± 34%	2,900 ± 47%	16,400 ± 39%	20,800 ± 66%	1.8 ± 66%	4.5 ± 114%
North Carolina	13,000 ± 99%	9,900 ± 117%	6,400 ± 84%	5,200 ± 100%	31,400 ± 107%	12,600 ± 83%	2.0 ± 129%	1.9 ± 154%
Pennsylvania	3,500 ± 41%	6,300 ± 73%	4,200 ± 48%	4,600 ± 62%	20,700 ± 60%	30,300 ± 92%	0.8 ± 63%	1.4 ± 96%
Rhode Island	100 ± 66%	100 ± 90%	300 ± 55%	300 ± 87%	1,300 ± 71%	500 ± 52%	0.5 ± 86%	0.5 ± 125%
South Carolina	1,000 ± 67%	6,100 ± 155%	200 ± 35%	3,400 ± 131%	700 ± 57%	4,300 ± 105%	6.2 ± 76%	1.8 ± 202%
Vermont	2,000 ± 35%	2,600 ± 77%	1,100 ± 42%	1,900 ± 51%	4,100 ± 34%	7,500 ± 55%	1.9 ± 55%	1.4 ± 92%
Virginia	3,900 ± 66%	3,300 ± 56%	2,400 ± 67%	500 ± 22%	7,700 ± 80%	2,900 ± 40%	1.6 ± 93%	6.5 ± 60%
West Virginia	600 ± 61%	500 ± 43%	200 ± 81%	100 ± 16%	600 ± 40%	700 ± 32%	2.5 ± 102%	3.8 ± 46%
Eastern Region Total	51,100 ± 28%	73,500 ± 38%	32,900	33,800	142,800 ± 27%	153,600 ± 27%		
Alabama	300 ± 113%	3,400 ± 169%	100 ± 106%	1,500 ± 184%	200 ± 128%	7,900 ± 179%	4.0 ± 155%	2.2 ± 249%
Arkansas	0	3,100 ± 195%	1,400 ± 196%	100 ± 195%	8,300 ± 196%	1,800 ± 195%	0	21.0 ± 276%
Illinois	100 ± 194%	200 ± 195%	1,800 ± 188%	1,500 ± 185%	5,400 ± 193%	1,500 ± 177%	< 0.1 ± 269%	0.2 ± 269%
Indiana	1,000 ± 94%	1,700 ± 82%	1,100 ± 77%	800 ± 109%	3,200 ± 97%	2,100 ± 70%	0.9 ± 122%	2.1 ± 136%
Iowa	200 ± 84%	4,100 ± 136%	100 ± 58%	1,700 ± 129%	400 ± 79%	4,100 ± 153%	2.5 ± 102%	2.4 ± 188%
Kansas	<50 ± 153%	<50 ± 188%	<50 ± 80%	<50 ± 188%	100 ± 90%	<50 ± 188%	1.5 ± 173%	3.0 ± 265%
Kentucky	200 ± 75%	300 ± 108%	1,200 ± 187%	100 ± 53%	1,500 ± 153%	400 ± 68%	0.2 ± 201%	2.3 ± 120%
Louisiana	4,700 ± 98%	4,900 ± 98%	2,900 ± 87%	4,700 ± 76%	7,400 ± 80%	12,700 ± 86%	1.6 ± 131%	1.0 ± 124%
Michigan	37,400 ± 29%	47,500 ± 25%	18,500 ± 22%	20,100 ± 24%	82,900 ± 24%	93,700 ± 23%	2.0 ± 37%	2.4 ± 34%
Minnesota	25,000 ± 37%	26,300 ± 49%	12,000 ± 35%	11,000 ± 41%	49,700 ± 38%	47,800 ± 44%	2.1 ± 51%	2.4 ± 64%
Mississippi	1,800 ± 105%	400 ± 159%	1,600 ± 132%	1,100 ± 185%	2,600 ± 103%	3,500 ± 176%	1.1 ± 169%	0.3 ± 244%

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	<u>Woodcock Harvest</u>		<u>Active Woodcock Hunters ²</u>		<u>Woodcock Hunter Days Afield</u>		<u>Seasonal Harvest Per Hunter</u>	
	2020	2021	2020	2021	2020	2021	2020	2021
Missouri	200 ± 75%	4,100 ± 147%	800 ± 171%	3,200 ± 105%	2,600 ± 164%	12,900 ± 141%	0.2 ± 187%	1.3 ± 181%
Nebraska	0	0	0	0	0	0	0	0
Ohio	2,900 ± 87%	1,400 ± 88%	2,000 ± 80%	1,500 ± 145%	5,200 ± 81%	9,300 ± 138%	1.5 ± 118%	0.9 ± 169%
Oklahoma	200 ± 156%	100 ± 193%	1,000 ± 184%	100 ± 104%	2,900 ± 189%	200 ± 123%	0.2 ± 241%	0.7 ± 219%
Tennessee	<50 ± 193%	100 ± 141%	<50 ± 193%	100 ± 105%	100 ± 193%	400 ± 122%	1.0 ± 273%	1.0 ± 176%
Texas	400 ± 104%	1,600 ± 108%	5,300 ± 190%	300 ± 41%	5,700 ± 177%	2,100 ± 103%	< 0.1 ± 217%	5.1 ± 116%
Wisconsin	49,300 ± 43%	42,400 ± 56%	17,200 ± 28%	12,900 ± 33%	82,300 ± 35%	72,700 ± 42%	2.9 ± 51%	3.3 ± 65%
Central Region Total	123,700 ± 21%	141,300 ± 23%	67,100	60,700	260,600 ± 18%	273,100 ± 19%		
United States Total	174,800 ± 17%	214,800 ± 20%	100,000	94,500	403,500 ± 15%	426,700 ± 16%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Snipe Harvest		Active Snipe Hunters ²		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Connecticut	100 ± 176%	0	100 ± 134%	0	300 ± 136%	0	0.5 ± 222%	0
Delaware	0	0	0	0	0	0	0	0
Florida	37,100 ± 96%	29,300 ± 81%	2,800 ± 72%	1,700 ± 41%	9,600 ± 89%	10,700 ± 77%	13.5 ± 120%	16.8 ± 91%
Georgia	500 ± 194%	0	100 ± 135%	100 ± 195%	500 ± 178%	500 ± 195%	6.0 ± 236%	0
Maine	0	0	500 ± 187%	100 ± 195%	1,600 ± 187%	300 ± 195%	0	0
Maryland	<50 ± 188%	0	<50 ± 188%	0	<50 ± 188%	0	1.0 ± 267%	0
Massachusetts	<50 ± 166%	600 ± 137%	100 ± 172%	300 ± 128%	100 ± 172%	2,000 ± 130%	0.1 ± 239%	1.9 ± 187%
New Hampshire	100 ± 159%	<50 ± 194%	200 ± 131%	<50 ± 194%	500 ± 140%	100 ± 194%	0.6 ± 206%	1.0 ± 274%
New Jersey	0	0	0	100 ± 195%	0	300 ± 195%	0	0
New York	<50 ± 175%	0	<50 ± 123%	0	<50 ± 126%	0	1.5 ± 214%	0
North Carolina	0	0	0	1,700 ± 196%	0	1,700 ± 196%	0	0
Pennsylvania	0	0	<50 ± 191%	0	100 ± 191%	0	0	0
Rhode Island	<50 ± 183%	0	<50 ± 183%	0	0	0	4.0 ± 258%	0
South Carolina	1,700 ± 172%	0	1,500 ± 135%	0	2,200 ± 141%	0	1.1 ± 218%	0
Vermont	<50 ± 187%	<50 ± 184%	<50 ± 187%	<50 ± 184%	<50 ± 187%	<50 ± 184%	1.0 ± 264%	1.0 ± 260%
Virginia	0	<50 ± 188%	0	<50 ± 105%	0	<50 ± 105%	0	0.3 ± 215%
West Virginia	0	400 ± 113%	0	100 ± 107%	0	1,400 ± 142%	0	3.3 ± 155%
Atlantic Flyway Total	39,500 ± 91%	30,300 ± 78%	5,300	4,300	15,000 ± 64%	17,100 ± 56%		
Alabama	0	0	0	0	0	0	0	0
Arkansas	0	2,900 ± 196%	0	200 ± 196%	0	600 ± 196%	0	14.0 ± 277%
Illinois	0	0	0	0	0	0	0	0
Indiana	100 ± 77%	200 ± 106%	600 ± 172%	100 ± 60%	2,000 ± 157%	200 ± 73%	0.2 ± 188%	3.0 ± 122%
Iowa	1,000 ± 109%	500 ± 121%	200 ± 99%	200 ± 69%	400 ± 110%	500 ± 75%	5.3 ± 147%	3.2 ± 140%
Kentucky	0	100 ± 195%	0	100 ± 119%	0	1,700 ± 151%	0	1.0 ± 228%
Louisiana	10,900 ± 127%	1,100 ± 195%	800 ± 91%	200 ± 195%	3,300 ± 109%	1,300 ± 195%	14.1 ± 157%	6.0 ± 276%
Michigan	19,200 ± 187%	0	5,700 ± 124%	2,400 ± 183%	15,900 ± 135%	2,500 ± 173%	3.4 ± 224%	0
Minnesota	700 ± 196%	0	700 ± 196%	200 ± 195%	3,000 ± 196%	400 ± 195%	1.0 ± 277%	0
Mississippi	0	0	100 ± 195%	0	1,200 ± 195%	0	0	0
Missouri	1,900 ± 142%	2,800 ± 166%	700 ± 175%	900 ± 172%	1,200 ± 138%	4,000 ± 185%	2.9 ± 225%	3.1 ± 239%

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Snipe Harvest		Active Snipe Hunters ²		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Ohio	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	8,000 ± 168%	300 ± 195%	4,700 ± 93%	300 ± 110%	9,400 ± 110%	1,500 ± 144%	1.7 ± 192%	1.0 ± 224%
Mississippi Flyway To	41,900 ± 98%	7,900 ± 98%	13,500	4,400	36,400 ± 69%	12,900 ± 76%		
Colorado	800 ± 195%	0	200 ± 134%	100 ± 195%	1,000 ± 177%	100 ± 195%	4.0 ± 237%	0
Kansas	0	0	1,000 ± 196%	0	1,000 ± 196%	0	0	0
Nebraska	1,000 ± 122%	0	500 ± 156%	0	800 ± 122%	0	1.9 ± 198%	0
New Mexico	<50 ± 129%	<50 ± 187%	<50 ± 103%	<50 ± 187%	<50 ± 118%	<50 ± 187%	1.7 ± 165%	2.0 ± 264%
North Dakota	600 ± 172%	300 ± 84%	600 ± 183%	100 ± 53%	700 ± 164%	400 ± 74%	1.1 ± 251%	2.5 ± 99%
Oklahoma	<50 ± 192%	400 ± 155%	<50 ± 135%	100 ± 78%	100 ± 143%	300 ± 101%	0.5 ± 235%	3.0 ± 173%
South Dakota	<50 ± 175%	600 ± 129%	<50 ± 100%	900 ± 177%	100 ± 119%	1,800 ± 168%	1.7 ± 201%	0.8 ± 219%
Texas	3,800 ± 152%	1,400 ± 117%	3,000 ± 186%	400 ± 64%	14,900 ± 190%	800 ± 84%	1.3 ± 240%	3.7 ± 133%
Wyoming	300 ± 80%	200 ± 107%	100 ± 42%	100 ± 136%	200 ± 64%	400 ± 87%	3.9 ± 91%	1.4 ± 173%
Central Flyway Total	6,600 ± 94%	2,900 ± 67%	5,500	1,700	18,800 ± 151%	3,900 ± 82%		
Arizona	0	0	<50 ± 191%	100 ± 103%	<50 ± 191%	200 ± 113%	0	0
California	3,400 ± 66%	1,100 ± 70%	300 ± 35%	800 ± 117%	1,400 ± 63%	1,900 ± 107%	10.8 ± 74%	1.4 ± 137%
Idaho	0	0	0	0	0	0	0	0
Montana	200 ± 170%	400 ± 112%	<50 ± 134%	100 ± 88%	100 ± 156%	200 ± 91%	4.5 ± 216%	3.0 ± 142%
Nevada	100 ± 194%	200 ± 139%	100 ± 137%	300 ± 128%	700 ± 141%	900 ± 154%	1.5 ± 237%	0.7 ± 189%
Oregon	200 ± 194%	1,800 ± 188%	100 ± 134%	500 ± 171%	1,700 ± 175%	1,800 ± 188%	3.0 ± 235%	3.6 ± 255%
Utah	500 ± 194%	600 ± 196%	100 ± 135%	300 ± 196%	200 ± 143%	300 ± 196%	4.0 ± 237%	2.0 ± 277%
Washington	500 ± 85%	0	200 ± 40%	0	700 ± 60%	0	3.0 ± 94%	0
Pacific Flyway Total	5,000 ± 52%	4,100 ± 89%	800	2,100	4,800 ± 70%	5,300 ± 79%		
Alaska	0	2,700 ± 183%	0	600 ± 155%	0	1,200 ± 164%	0	4.2 ± 240%
United States Total	93,000 ± 59%	47,900 ± 54%	25,100	13,200	75,100 ± 52%	40,300 ± 37%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Coot Harvest		Active Coot Hunters ²		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Connecticut	100 ± 191%	100 ± 194%	100 ± 188%	100 ± 194%	700 ± 193%	100 ± 194%	2.0 ± 268%	1.0 ± 275%
Delaware	200 ± 186%	0	100 ± 186%	0	100 ± 186%	0	2.0 ± 263%	0
Florida	2,700 ± 159%	5,100 ± 177%	700 ± 154%	200 ± 136%	1,900 ± 116%	1,000 ± 136%	3.7 ± 221%	20.5 ± 223%
Georgia	1,400 ± 194%	200 ± 141%	<50 ± 194%	200 ± 105%	800 ± 194%	700 ± 134%	35.0 ± 274%	1.0 ± 176%
Maine	0	0	0	0	0	0	0	0
Maryland	<50 ± 188%	0	<50 ± 188%	0	<50 ± 188%	0	2.0 ± 267%	0
Massachusetts	400 ± 178%	200 ± 195%	100 ± 182%	200 ± 195%	100 ± 149%	200 ± 195%	7.2 ± 255%	1.0 ± 276%
New Hampshire	0	0	0	0	0	0	0	0
New Jersey	4,900 ± 140%	200 ± 133%	100 ± 108%	100 ± 160%	400 ± 140%	600 ± 149%	73.7 ± 177%	1.2 ± 208%
New York	<50 ± 175%	700 ± 155%	<50 ± 175%	400 ± 159%	<50 ± 175%	500 ± 140%	5.0 ± 248%	1.8 ± 222%
North Carolina	1,400 ± 196%	0	1,400 ± 196%	0	1,400 ± 196%	0	1.0 ± 277%	0
Pennsylvania	<50 ± 191%	0	<50 ± 191%	0	<50 ± 191%	0	1.0 ± 270%	0
Rhode Island	100 ± 146%	0	<50 ± 120%	0	<50 ± 171%	0	5.0 ± 188%	0
South Carolina	2,300 ± 185%	0	1,500 ± 135%	0	2,300 ± 139%	0	1.6 ± 229%	0
Vermont	<50 ± 187%	<50 ± 0%	<50 ± 187%	<50 ± 0%	<50 ± 187%	<50 ± 92%	2.0 ± 264%	2.0 ± 0%
Virginia	200 ± 188%	100 ± 138%	200 ± 174%	300 ± 178%	300 ± 150%	300 ± 178%	0.9 ± 256%	0.3 ± 225%
West Virginia	300 ± 192%	<50 ± 175%	<50 ± 192%	<50 ± 156%	<50 ± 192%	100 ± 128%	12.0 ± 272%	0.7 ± 235%
Atlantic Flyway Total	14,200 ± 71%	6,600 ± 138%	4,300	1,600	8,100 ± 65%	3,500 ± 62%		
Alabama	31,300 ± 169%	0	2,800 ± 134%	0	7,000 ± 155%	0	11.4 ± 216%	0
Arkansas	0	6,500 ± 196%	0	200 ± 196%	0	1,300 ± 196%	0	31.0 ± 277%
Illinois	0	100 ± 137%	0	100 ± 137%	0	300 ± 153%	0	1.0 ± 194%
Indiana	200 ± 71%	200 ± 90%	100 ± 49%	<50 ± 65%	300 ± 74%	200 ± 87%	2.6 ± 86%	4.1 ± 111%
Iowa	2,800 ± 113%	2,700 ± 144%	600 ± 93%	1,100 ± 171%	1,900 ± 109%	1,300 ± 140%	4.6 ± 146%	2.5 ± 224%
Kentucky	0	700 ± 195%	0	100 ± 119%	0	4,800 ± 162%	0	5.0 ± 228%
Louisiana	51,900 ± 122%	22,500 ± 97%	2,100 ± 56%	1,100 ± 73%	9,200 ± 80%	3,700 ± 93%	24.8 ± 134%	20.5 ± 121%
Michigan	1,000 ± 196%	0	3,600 ± 148%	200 ± 195%	9,700 ± 144%	300 ± 195%	0.3 ± 246%	0
Minnesota	700 ± 196%	4,600 ± 196%	700 ± 196%	1,500 ± 196%	700 ± 196%	7,700 ± 196%	1.0 ± 277%	3.0 ± 277%
Mississippi	1,800 ± 143%	0	1,300 ± 166%	0	9,200 ± 148%	0	1.3 ± 219%	0
Missouri	0	800 ± 196%	0	800 ± 196%	0	800 ± 196%	0	1.0 ± 277%

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Coot Harvest		Active Coot Hunters ²		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Ohio	0	0	0	200 ± 129%	0	200 ± 129%	0	0
Tennessee	0	400 ± 195%	2,800 ± 196%	100 ± 195%	25,500 ± 196%	100 ± 195%	0	3.0 ± 276%
Wisconsin	8,000 ± 195%	2,000 ± 119%	1,300 ± 177%	400 ± 95%	2,500 ± 177%	1,600 ± 136%	6.3 ± 263%	5.5 ± 152%
Mississippi Flyway Total	97,600 ± 86%	40,400 ± 67%	15,200	5,800	66,100 ± 84%	22,200 ± 80%		
Colorado	300 ± 196%	1,800 ± 195%	400 ± 153%	100 ± 195%	1,200 ± 158%	500 ± 195%	0.7 ± 249%	22.0 ± 276%
Kansas	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
New Mexico	<50 ± 179%	<50 ± 139%	<50 ± 103%	<50 ± 132%	200 ± 149%	100 ± 172%	1.0 ± 206%	1.5 ± 191%
North Dakota	5,300 ± 185%	100 ± 106%	600 ± 171%	100 ± 68%	1,500 ± 148%	300 ± 95%	8.3 ± 251%	1.9 ± 126%
Oklahoma	2,400 ± 148%	700 ± 93%	700 ± 133%	200 ± 60%	5,900 ± 182%	400 ± 84%	3.6 ± 199%	3.6 ± 110%
South Dakota	100 ± 111%	200 ± 176%	<50 ± 76%	<50 ± 132%	100 ± 106%	100 ± 149%	5.4 ± 134%	6.5 ± 220%
Texas	40,300 ± 196%	10,800 ± 146%	2,900 ± 196%	7,300 ± 137%	2,900 ± 196%	10,900 ± 145%	14.0 ± 277%	1.5 ± 200%
Wyoming	100 ± 84%	700 ± 131%	100 ± 138%	100 ± 53%	200 ± 116%	200 ± 79%	0.8 ± 162%	13.3 ± 141%
Central Flyway Total	48,600 ± 164%	14,400 ± 112%	4,700	7,700	11,900 ± 105%	12,500 ± 126%		
Arizona	0	200 ± 120%	<50 ± 191%	200 ± 73%	<50 ± 191%	300 ± 83%	0	1.4 ± 141%
California	6,100 ± 84%	9,000 ± 62%	900 ± 105%	2,400 ± 81%	2,500 ± 78%	6,000 ± 79%	6.9 ± 134%	3.7 ± 101%
Idaho	0	3,300 ± 196%	0	800 ± 196%	0	800 ± 196%	0	4.0 ± 277%
Montana	100 ± 150%	0	100 ± 108%	100 ± 132%	100 ± 117%	100 ± 132%	2.7 ± 185%	0
Nevada	1,400 ± 118%	400 ± 90%	100 ± 109%	100 ± 53%	200 ± 90%	200 ± 63%	12.3 ± 160%	5.4 ± 104%
Oregon	900 ± 196%	8,900 ± 162%	400 ± 196%	1,100 ± 113%	400 ± 196%	2,100 ± 127%	2.0 ± 277%	8.4 ± 197%
Utah	12,400 ± 129%	5,400 ± 72%	1,600 ± 64%	2,300 ± 56%	9,400 ± 97%	6,200 ± 69%	7.9 ± 144%	2.3 ± 91%
Washington	1,400 ± 88%	0	200 ± 36%	0	700 ± 59%	0	7.4 ± 95%	0
Pacific Flyway Total	22,300 ± 76%	27,100 ± 63%	3,300	6,900	13,400 ± 70%	15,700 ± 45%		
United States Total	182,700 ± 64%	88,600 ± 42%	27,500	22,000	99,500 ± 58%	53,900 ± 46%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Gallinule Harvest		Active Gallinule Hunters ²		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Delaware	0	0	0	0	0	0	0	0
Florida	200 ± 194%	1,600 ± 140%	<50 ± 194%	200 ± 105%	<50 ± 194%	300 ± 113%	5.0 ± 274%	8.0 ± 175%
Georgia	1,300 ± 196%	0	1,300 ± 196%	1,900 ± 196%	1,300 ± 196%	1,900 ± 196%	1.0 ± 277%	0
New Jersey	0	100 ± 186%	0	<50 ± 186%	0	<50 ± 186%	0	7.0 ± 263%
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	<50 ± 177%	0	<50 ± 177%	0	0	0
West Virginia	0	0	0	<50 ± 177%	0	<50 ± 177%	0	0
Atlantic Flyway Total	1,500 ± 168%	1,700 ± 135%	1,400	2,100	1,400 ± 188%	2,200 ± 170%		
Alabama	0	0	1,200 ± 196%	0	3,600 ± 196%	0	0	0
Arkansas	0	0	1,700 ± 196%	0	1,700 ± 196%	0	0	0
Kentucky	0	0	<50 ± 193%	<50 ± 192%	100 ± 193%	<50 ± 192%	0	0
Louisiana	4,400 ± 126%	4,000 ± 141%	300 ± 92%	1,100 ± 134%	1,000 ± 107%	5,400 ± 179%	15.0 ± 156%	3.8 ± 194%
Michigan	0	0	0	0	0	0	0	0
Minnesota	0	0	900 ± 155%	0	1,900 ± 136%	0	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	0	0	0	4,000 ± 137%	0	32,000 ± 154%	0	0
Mississippi Flyway Total	4,400 ± 126%	4,000 ± 141%	4,100	5,100	8,200 ± 100%	37,400 ± 134%		
New Mexico	0	0	0	0	0	0	0	0
Oklahoma	100 ± 153%	0	100 ± 84%	<50 ± 135%	200 ± 89%	200 ± 155%	1.8 ± 175%	0
Texas	<50 ± 194%	0	<50 ± 194%	0	<50 ± 194%	0	1.0 ± 274%	0
Central Flyway Total	200 ± 125%	0	100	<50	200 ± 81%	200 ± 155%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Gallinule Harvest		Active Gallinule Hunters ²		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Arizona	0	0	<50 ± 190%	0	100 ± 190%	0	0	0
California	1,000 ± 113%	100 ± 158%	1,000 ± 112%	800 ± 133%	1,400 ± 116%	1,900 ± 158%	1.0 ± 159%	< 0.1 ± 206%
Nevada	0	0	100 ± 194%	0	100 ± 194%	0	0	0
Pacific Flyway Total	1,000 ± 113%	100 ± 158%	1,100	800	1,600 ± 103%	1,900 ± 158%		
United States Total	7,100 ± 88%	5,700 ± 106%	6,600	8,000	11,400 ± 77%	41,700 ± 121%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Rail Harvest		Active Rail Hunters ²		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Connecticut	1,000 ± 184%	0	100 ± 169%	0	100 ± 134%	0	18.3 ± 250%	0
Delaware	0	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0	0
Georgia	2,100 ± 157%	1,800 ± 160%	100 ± 133%	100 ± 133%	100 ± 157%	200 ± 157%	37.5 ± 206%	27.5 ± 208%
Maine	100 ± 193%	1,800 ± 195%	<50 ± 193%	100 ± 195%	100 ± 193%	300 ± 195%	2.0 ± 273%	24.0 ± 275%
Maryland	0	0	0	0	0	0	0	0
Massachusetts	300 ± 190%	0	300 ± 76%	0	700 ± 87%	0	0.8 ± 205%	0
New Jersey	3,200 ± 95%	10,200 ± 143%	300 ± 78%	500 ± 89%	600 ± 104%	700 ± 107%	12.3 ± 123%	22.2 ± 168%
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	17,600 ± 105%	4,600 ± 166%	1,500 ± 124%	800 ± 184%	1,600 ± 111%	800 ± 184%	12.1 ± 163%	5.6 ± 248%
Virginia	6,100 ± 128%	5,400 ± 77%	300 ± 127%	600 ± 118%	700 ± 122%	1,600 ± 134%	18.1 ± 180%	8.5 ± 140%
West Virginia	300 ± 192%	<50 ± 177%	100 ± 136%	<50 ± 177%	400 ± 158%	<50 ± 177%	6.0 ± 235%	2.0 ± 250%
Atlantic Flyway Total	30,600 ± 67%	23,800 ± 74%	2,600	2,100	4,400 ± 53%	3,700 ± 77%		
Alabama	0	0	0	0	0	0	0	0
Arkansas	0	0	1,700 ± 196%	0	1,700 ± 196%	0	0	0
Illinois	0	0	0	0	0	0	0	0
Indiana	<50 ± 132%	100 ± 133%	<50 ± 70%	<50 ± 73%	100 ± 75%	100 ± 79%	0.8 ± 149%	2.4 ± 152%
Iowa	100 ± 155%	12,300 ± 193%	1,400 ± 110%	1,700 ± 134%	2,300 ± 113%	5,800 ± 136%	< 0.1 ± 190%	7.4 ± 234%
Kentucky	0	0	0	<50 ± 192%	0	<50 ± 192%	0	0
Louisiana	0	0	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	0	0
Minnesota	0	5,500 ± 115%	200 ± 137%	3,300 ± 132%	1,300 ± 180%	11,400 ± 144%	0	1.7 ± 175%
Mississippi	0	0	0	0	0	0	0	0

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 hunting seasons. ¹

	Rail Harvest		Active Rail Hunters ²		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2020	2021	2020	2021	2020	2021	2020	2021
Missouri	0	0	0	0	0	0	0	0
Ohio	0	0	0	<50 ± 193%	0	<50 ± 193%	0	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	0	2,000 ± 196%	0	6,000 ± 111%	0	34,000 ± 145%	0	0.3 ± 225%
Mississippi Flyway Total	100 ± 123%	19,800 ± 125%	3,300	11,000	5,300 ± 90%	51,300 ± 103%		
Colorado	0	0	0	0	0	0	0	0
Kansas	0	0	0	0	0	0	0	0
Nebraska	2,300 ± 196%	0	500 ± 196%	0	1,800 ± 196%	0	5.0 ± 277%	0
New Mexico	<50 ± 183%	<50 ± 186%	<50 ± 183%	<50 ± 186%	<50 ± 183%	<50 ± 186%	6.0 ± 259%	3.0 ± 263%
Oklahoma	200 ± 173%	0	100 ± 67%	<50 ± 135%	300 ± 74%	200 ± 155%	1.4 ± 185%	0
Texas	<50 ± 194%	0	<50 ± 194%	0	<50 ± 194%	0	1.0 ± 274%	0
Wyoming	0	100 ± 194%	<50 ± 173%	100 ± 166%	<50 ± 173%	100 ± 142%	0	0.9 ± 256%
Central Flyway Total	2,500 ± 177%	100 ± 142%	600	100	2,200 ± 160%	300 ± 112%		
United States Total	33,200 ± 64%	43,700 ± 70%	6,400	13,200	11,900 ± 54%	55,300 ± 95%		

¹ Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

² 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 2020 and 2021 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	
	2020	2021	2020	2021	2020	2021	2020	2021
Atlantic	1,800	1,600	300	300	28,500	21,900	0	0
Mississippi	100	19,700	<50	100	<50	100	0	0
Central	2,100	100	400	<50	0	0	0	0
U.S. Total	3,900	21,300	800	400	28,500	22,000	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 and Andrew Macy, 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 and Secunda Byrd, 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 Shuler and Barbara 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
Devon Boone and Phil Schroeder, 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 and Ryan Myers, 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, Brendan Oates 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); 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; K. Fleming, U.S. Fish and Wildlife Service - DMBM/BMDM; J. Foth, U.S. Fish and Wildlife Service – DMBM; P. Garretson, U.S. Fish and Wildlife Service - DMBM/BMDM; P. Padding, U.S. Fish and Wildlife Service (retired); R. Raftovich, U.S. Fish and Wildlife Service - DMBM/BMDM; W. Rhodes, U.S. Fish and Wildlife Service - DMBM/MBSB; B. Rosamond, U.S. Fish and Wildlife Service; A. Walter, U.S. Fish and Wildlife Service - DMBM/BMDM; N. Zimpfer, U.S. Fish and Wildlife Service - DMBM/BMDM.

Mississippi Flyway Wingbee

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; B. Davis, Minnesota Department of Natural Resources; J. Hanks, Louisiana Department of Wildlife and Fisheries; D. Fronczak, U.S. Fish and Wildlife Service – DMBM/Mississippi Flyway; G. Knutsen, U.S. Fish and Wildlife Service; W. Moody, U.S. Fish and Wildlife Service; P. Padding, U.S. Fish and Wildlife Service (retired); D. Rave, Minnesota Department of Natural Resources; R. Vinson, U.S. Fish and Wildlife Service; G. Wilkerson, U.S. Fish and Wildlife Service - DMBM/MBSB.

Central Flyway Wingbee

L. Alford, Texas Parks and Wildlife Department; R. Assenheimer, Texas Parks and Wildlife Department; T. Bidrowski, Kansas Department of Wildlife, Parks & Tourism; 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; C. Farrell, Texas Parks and Wildlife Department; A. Friensen, Kansas Department of Wildlife, Parks & Tourism; M. Garrick, Nebraska Game & Parks Commission; M. Grovijahn, South Dakota Game, Fish, and Parks; K. Hand, Texas Parks and Wildlife Department; K. Kraai, Texas Parks and Wildlife Department; K. Kriegel, Texas Parks and Wildlife Department; H. Kryger, Texas Parks and Wildlife Department; T. Liddick, U.S. Fish and Wildlife Service - DMBM/MBSB; E. Love, Texas Parks and Wildlife Department; J. Morel, Oklahoma Department of Wildlife Conservation; R. Murano, South Dakota Game, Fish, and Parks; J. Neal, Oklahoma Department of Wildlife Conservation; K. Schoonover, Oklahoma Department of Wildlife Conservation; R. Schultheis, Kansas Dept of Wildlife, Parks & Tourism; C. Shipes, Texas Parks and Wildlife Department; P. Smith, Oklahoma Department of Wildlife Conservation; R. Stutheit, Nebraska Game and Parks Commission; M. Symmank, Texas Parks and Wildlife Department; M. Szymanski, North Dakota Game and Fish Department; T. Tanner, Texas Parks and Wildlife Department; P. Thorpe, U.S. Fish and Wildlife Service - DMBM/MBSB; S. Woods, Texas Parks and Wildlife Department.

Pacific Flyway Wingbee

A. Bacon, California Waterfowl Association; C. Brady, California Department of Fish and Wildlife; E. Brownridge, California Waterfowl Association; C. Cain, U.S. Fish and Wildlife Service - DMBM/BMDM; L. Cockrell, California Department of Fish and Wildlife; S. Cordes, California Department of Fish and Wildlife (retired); S. Farnsworth, Idaho Department of Fish and Game; J. Fidorra, Washington Department of Fish and Wildlife; B. Flack, Idaho Department of Fish and Game; G. Gerstenberg, California Department of Fish and Wildlife; J. Journey, Oregon Department of Fish and Wildlife; J. Laughlin, U.S. Department of Agriculture - APHIS/Wildlife Services; C. Moore, Washington Department of Fish and Wildlife; E. Nunez,

California Waterfowl Association; 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; O. Rocha, California Department of Fish and Wildlife; N. Saake, Nevada Department of Wildlife (retired); J. Sands, U.S. Fish and Wildlife Service - Region 1; M. Scannell, California Department of Fish and Wildlife; R. Shinn, California Department of Fish and Wildlife; D. Speten, Oregon Department of Fish and Wildlife; D. Stitts, California Department of Fish and Wildlife; C. Sundstrom, Washington Department of Fish and Wildlife; K. Walton, Oregon Department of Fish and Wildlife; R. White, California Department of Fish and Wildlife; M. Wilson, Washington Department of Fish and Wildlife; B. Wyatt, California Department of Fish and Wildlife.

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