U.S. Fish \& Wildlife Service

## Migratory bird hunting activity and harvest during the 2012-13 and 2013-14 hunting seasons <br> July 2014



Hunter setting decoys.
USFWS/Milton Friend

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Abstract: National surveys of migratory bird hunters were conducted during the 2012 and 2013 hunting seasons. Hunters of the following types of migratory birds were surveyed: waterfowl (family Anatidae), doves (mourning [Zenaida macroura] and white-winged [Z. asiatica]), bandtailed pigeon (Patagioenas fasciata), American woodcock (Scolopax minor), Wilson’s snipe (Gallinago delicata), American coot (Fulica americana), gallinules (common gallinule [Gallinula galeata] and purple gallinule [Pophyrio martinica]), and rails (king rail [Rallus elegans], clapper rail [ $R$. longirostris], Virginia rail [R. limicola], and sora [Coturnicops noveboracensis]). Over 1.1 million waterfowl hunters harvested $15,704,500$ ( $\pm 6 \%$ ) ducks and $3,191,200( \pm 6 \%)$ geese in 2012, and about 1 million waterfowl hunters harvested 13,716,400 ( $\pm 6 \%$ ) ducks and 3,360,400 ( $\pm 6 \%$ ) geese in 2013. Mallard (Anas platyrhynchos), green-winged teal (A. crecca), gadwall (A. strepera), blue-winged/cinnamon teal (A. discors and A. cyanoptera), and wood duck (Aix sponsa) were the 5 most-harvested duck species in the U.S., and Canada goose (Branta canadensis) was the predominant goose species in the goose harvest. About 828,900 dove hunters harvested 14,490,900 ( $\pm 7 \%$ ) mourning doves in 2012 and 857,300 hunters harvested $14,529,800 \pm 7 \%$ in 2013. Woodcock hunters numbered about 103,700 in 2012 and 109,800 in 2013, and harvested 279,500 ( $\pm 21 \%$ ) in 2012 and 243,100 ( $\pm 15 \%)$ in 2013. About 30,300 people hunted snipe in 2012 and 24,700 in 2013, and they harvested 64,900 $( \pm 35 \%)$ and $69,100( \pm 38 \%)$ snipe in 2012 and 2013, respectively. Coot hunters (about 40,500 in 2012 and 34,800 in 2013) harvested 208,700 $( \pm 42 \%)$ coots in 2012 and 254,900 $( \pm 41 \%)$ in 2013. Gallinule hunters (about 2,300 in 2012 and 6,300 in 2013) harvested 22,900 ( $\pm 97 \%$ ) in 2012 and $21,300( \pm 78 \%)$ in 2013. About 2,200 rail hunters harvested 16,900 ( $\pm 38 \%$ ) rails in 2012 and 6,900 rail hunters harvested 23,500 ( $\pm 56 \%$ ) rails in 2013.

## Introduction

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

This report presents hunter activity and harvest estimates from the HIP surveys for the 2012-13 and 2013-14 hunting seasons. These estimates are preliminary, pending (1) final counts of the number of HIP registrants in each state each season, and (2) complete audits of all survey response data.

## HIP Survey Design and Methods

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

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

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

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

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

## Parts Collection Surveys

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

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

The FWS has 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 1963-2013 were reported in "American woodcock population status, 2014" (Cooper and Rau 2014). 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 20082013 will be reported in "Mourning Dove population status, 2014".

## Survey Results

Waterfowl Hunter Activity and Harvest (Tables 1-7, Figures 1-3). HIP waterfowl harvest survey sample sizes and response rates were 79,958 hunters and 45\% for the 2012-13, and 76,461 hunters and $41 \%$ for the 2013-14 survey. Species-specific estimates for ducks and geese (Table 1A-E) are presented by flyway. We were unable to split the estimates for Colorado, Montana, New Mexico, and Wyoming into their Central and Pacific Flyway portions for this report, so we arbitrarily assigned all of Colorado, New Mexico, and Wyoming to the Central Flyway and all of Montana to the Pacific Flyway. However, the Waterfowl Parts Collection Survey enabled us to provide Flyway-specific point estimates of duck and goose harvest for those four states; those point estimates are shown in Table 2.

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

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

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

Waterfowl Age and Sex Ratios (Tables 8-12, Figures 3-6). The 2012-13 Waterfowl Parts Survey collected 69,105 duck wings and 13,975 goose tails and primary tips from 3,639 hunters; the 2013-14 sample consisted of 74,693 duck wings and 16,422 goose tails and primary wing tips from 4,196 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 bandtailed pigeon estimates were based on samples of 38,403 hunters in 2012-13 (51\% response rate) and 46,999 hunters in 2013-14 (46\% 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 2012-13 survey had a sample size of 17,168 hunters and a $55 \%$ response rate; the 2013-14 survey sample size and response rate were 17,357 hunters and 51\%.

Snipe, Coot, Gallinule, and Rail Hunter Activity and Harvest (Tables 17-21). The sample for the 2012-13 snipe, coot, gallinule, and rail harvest survey was 31,311 hunters ( $51 \%$ response rate) and 33,221 hunters ( $43 \%$ response rate) for the 2013-14 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 2012-13 estimates are based on the species composition of 2,905 rail wings collected from 137 hunters collected during 2008-2012, and the 2013-14 estimates are based on 2,478 rail wings collected from 135 hunters collected during 2009-2013.

Alaska Sandhill Crane Hunter Activity and Harvest Estimates. The estimates presented below were derived from surveys of 744 (2012-13, 60\% response rate) and 833 (2012-13, 56\% response rate) Alaska migratory bird hunters. For Alaska’s 2012 season, we estimated that 1,000 active sandhill crane hunters spent 4,200 days hunting cranes and harvested 2,000 birds. In 2013, an estimated 1,000 active hunters spent 4,100 days hunting cranes and harvested 1,400 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 2012 and 2013 seasons were reported in, "Status and harvests of sandhill cranes: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern populations" (Kruse et al. 2014).

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The HIP and Waterfowl Parts surveys could not be conducted without the close cooperation of participating States. We appreciate the efforts of all State personnel who were involved with the HIP at various levels, as well as all who helped with the Waterfowl Parts Surveys at one of the 4 "wingbees". The names and affiliations of the people who were primarily responsible for coordinating the HIP program in each state are included in Appendix A. The names and affiliations of wingbee particpants are in Appendix B. We also would like to acknowledge

Victor Elam at the Flint Hills NWR for providing support for the Central Flyway wingbee and Debbie Anderson at the Coleman National Fish Hatchery for providing support for the Pacific Flyway wingbee.

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Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Connecticut |  | Delaware |  | Florida |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 6,745 | 6,754 | 10,736 | 10,840 | 1,358 | 1,164 |
| Domestic Mallard | 0 | 71 | 160 | 0 | 209 | 129 |
| Black Duck | 1,647 | 1,884 | 4,807 | 4,635 | 0 | 0 |
| Mallard x Black Hybrid | 124 | 249 | 481 | 374 | 0 | 259 |
| Mottled Duck | 0 | 0 | 0 | 0 | 7,939 | 9,050 |
| Gadwall | 280 | 355 | 1,763 | 2,916 | 1,671 | 646 |
| Wigeon | 373 | 249 | 1,602 | 748 | 2,194 | 4,137 |
| Green-winged Teal | 932 | 747 | 11,698 | 8,822 | 12,430 | 9,179 |
| Blue-winged/Cinnamon Teal | 0 | 36 | 481 | 299 | 71,029 | 50,422 |
| Northern Shoveler | 31 | 36 | 2,083 | 1,719 | 7,834 | 6,981 |
| Northern Pintail | 62 | 107 | 1,282 | 748 | 1,567 | 517 |
| Wood Duck | 870 | 2,204 | 5,769 | 4,411 | 13,997 | 5,042 |
| Redhead | 0 | 0 | 0 | 449 | 3,551 | 11,765 |
| Canvasback | 0 | 36 | 641 | 224 | 418 | 776 |
| Greater Scaup | 466 | 498 | 320 | 374 | 1,253 | 1,034 |
| Lesser Scaup | 528 | 142 | 1,442 | 598 | 18,906 | 8,145 |
| Ring-necked Duck | 218 | 142 | 320 | 374 | 101,738 | 83,002 |
| Goldeneyes | 0 | 71 | 0 | 0 | 0 | 129 |
| Bufflehead | 186 | 249 | 961 | 1,869 | 1,253 | 2,456 |
| Ruddy Duck | 31 | 249 | 0 | 75 | 1,776 | 4,913 |
| Long-tailed Duck | 2,323 | 4,521 | 0 | 0 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 1,161 | 36 | 954 | 1,140 | 313 | 1,551 |
| Hooded Merganser | 311 | 284 | 641 | 1,794 | 836 | 776 |
| Other Mergansers | 591 | 284 | 481 | 75 | 418 | 388 |
| Other Ducks | 0 | 0 | 0 | 0 | 7,207 | 10,214 |
| Total Duck Harvest | 16,900 $\pm 21 \%$ | 19,200 $\pm 41 \%$ | 46,600 $\pm 34 \%$ | 42,500 $\pm 12 \%$ | 257,900 $\pm 34 \%$ | 212,700 $\pm 28 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 1,900 $19 \%$ | 1,600 $25 \%$ | 4,100 $\pm 10 \%$ | 3,500 $\pm 5 \%$ | 16,300 $\pm 19 \%$ | 14,400 $\pm 21 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 11,900 $\pm 22 \%$ | 11,600 $\pm 42 \%$ | $31,000 \pm 16 \%$ | $23,400 \pm 9 \%$ | 87,600 $\pm 28 \%$ | 93,100 $\pm 29 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | 7.0 | 9.3 $\pm$ 48\% | 11.1 $-35 \%$ | 11.7 $\pm 13 \%$ | 15.8 -3.3 | 14.8 $\pm 35 \%$ |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 7,912 | 8,648 | 14,571 | 17,894 | 521 | 1,700 |
| Snow Goose | 0 | 0 | 6,969 | 8,947 | 0 | 0 |
| Blue Goose | 0 | 0 | 0 | 286 | 1,464 | 0 |
| Ross' Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| White-fronted Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| Brant | 264 | 0 | 520 | 239 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 8,200 $\pm 40 \%$ | 8,600 $\pm 39 \%$ | 22,100 $\pm 29 \%$ | 27,400 $\pm 13 \%$ | 2,000 $\pm 94 \%$ | 1,700 $\pm 158 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 1,300 $\pm 24 \%$ | 1,600 $\pm 26 \%$ | $3,500 \pm 11 \%$ | 3,500 $\pm 6 \%$ | $800 \pm 87 \%$ | $900 \pm 87 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 7,000 $\pm 27 \%$ | 8,200 $\pm 38 \%$ | 22,000 $\pm 15 \%$ | 22,300 $\pm 10 \%$ | 4,100 $\pm 103 \%$ | 1,700 $\pm 94 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 6.1 $\pm 47 \%$ | 5.5 $\pm 47 \%$ | - $6.1 \pm 31 \%$ | _7.7 | -1.8さ $128 \%$ | - . 1.9 $-14 \%$ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 2,500 $-16 \%$ | 2,300 $-21 \%$ | 5,100 $-8 \%$ | 4,500 5 - | 16,600 $\mathbf{- 1 9 \%}$ | 14,400 $\mathbf{- 2 1 \%}$ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 446 | 426 | 297 | 553 | 2,469 | 1,645 |
| GooseTails | 233 | 315 | 176 | 286 | 3 | 0 |

Table 1A．Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2012 and 2013 hunting seasons．

| Duck Species Composition | Georgia |  | Maine |  | Maryland |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 17，983 | 14，116 | 14，042 | 10，221 | 24，475 | 35，093 |
| Domestic Mallard | 0 | 291 | 73 | 67 | 1，349 | 792 |
| Black Duck | 353 | 146 | 3，347 | 3，474 | 3，662 | 9，499 |
| Mallard x Black Hybrid | 0 | 146 | 218 | 267 | 193 | 792 |
| Mottled Duck | 0 | 291 | 0 | 0 | 0 | 0 |
| Gadwall | 8，110 | 9，459 | 0 | 134 | 4，047 | 7，652 |
| Wigeon | 2，116 | 582 | 73 | 200 | 1，542 | 2，507 |
| Green－winged Teal | 9，873 | 9，459 | 2，328 | 4，609 | 5，396 | 6，596 |
| Blue－winged／Cinnamon Teal | 9，168 | 9，605 | 873 | 1，202 | 0 | 396 |
| Northern Shoveler | 1，058 | 291 | 0 | 0 | 193 | 2，639 |
| Northern Pintail | 0 | 437 | 0 | 267 | 578 | 1，187 |
| Wood Duck | 86，389 | 60，247 | 6，694 | 6，547 | 12，719 | 14，776 |
| Redhead | 3，879 | 2，619 | 0 | 0 | 578 | 132 |
| Canvasback | 0 | 728 | 0 | 0 | 1，734 | 4，617 |
| Greater Scaup | 0 | 0 | 73 | 67 | 4，432 | 5，673 |
| Lesser Scaup | 2，821 | 582 | 0 | 67 | 21，970 | 8，311 |
| Ring－necked Duck | 15，162 | 8，149 | 582 | 1，202 | 771 | 923 |
| Goldeneyes | 0 | 0 | 582 | 668 | 964 | 132 |
| Bufflehead | 353 | 873 | 655 | 601 | 23，897 | 13，984 |
| Ruddy Duck | 0 | 437 | 0 | 0 | 1，927 | 792 |
| Long－tailed Duck | 0 | 0 | 0 | 215 | 4，603 | 1，244 |
| Eiders | 0 | 0 | 5，169 | 3，115 | 0 | 0 |
| Scoters | 0 | 0 | 3，290 | 1，718 | 6，329 | 12，857 |
| Hooded Merganser | 5，289 | 3，638 | 1，528 | 1，069 | 1，349 | 2，243 |
| Other Mergansers | 0 | 0 | 364 | 267 | 385 | 923 |
| Other Ducks | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Duck Harvest | 162，600 $\pm 23 \%$ | 122，100 $\pm 33 \%$ | 39，900 $\pm 15 \%$ | 36，000 $\pm 31 \%$ | $123,100 \pm 26 \%$ | 133，800 $\pm 15 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 16，400 $\pm 16 \%$ | 17，800 $\pm 32 \%$ | $5,300 \pm 10 \%$ | 4，400 $\pm 16 \%$ | 16，800 $\pm 12 \%$ | 15，400 $\pm 10 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 98，300 $\pm 20 \%$ | 95，200 $\pm 34 \%$ | 28，800 $\pm 12 \%$ | 28，900 $\pm 31 \%$ | 92，100 $\pm 20 \%$ | 75，100 $\pm 15 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | －9．9さ28\％ |  | 5．9프﹎ㅡ﹎ | 7．0さ 3 － | 6．7土28\％ | 7．8土18\％ |

Goose Species Composition

| Canada Goose | 15，406 | 32，157 | 9，516 | 8，759 | 175，716 | 152，535 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 331 | 0 | 59 | 43 | 12，713 | 10，176 |
| Blue Goose | 0 | 0 | 0 | 0 | 1，695 | 217 |
| Ross＇Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| White－fronted Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| Brant | 0 | 0 | 0 | 0 | 1，292 | 116 |
| Other Geese | 166 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 15，900 $\pm 38 \%$ | $32,200 \pm 83 \%$ | 9，600 $\pm 32 \%$ | 8，800 $\pm 41 \%$ | 191，400 $\pm 14 \%$ | 163，000 $\pm 14 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 5，000 $\pm 28 \%$ | 8，300 $\pm 51 \%$ | $2,900 \pm 14 \%$ | $3,000 \pm 21 \%$ | 26，300 $\pm 7 \%$ | 21，800 $\pm 8 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 24，600 $\pm 45 \%$ | 28，000 $\pm 59 \%$ | 14，200 $\pm 21 \%$ | 14，000 $\pm 50 \%$ | 166，900 $\pm 11 \%$ | 130，000 $\pm 13 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | $3.2 \pm 48 \%$ | 3．997\％ | $3.3 \pm 35 \%$ | 2．9 $\pm 46 \%$ | $7.2 \pm 16 \%$ | $7.5 \pm 16 \%$ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 17，100 $\pm 16 \%$ | 18，000 ${ }^{\text {a }} 32 \%$ | 6，200 ${ }^{\text {a }}$ 9\％ | 5，500 1 15\％ | 27，400 | 28，900 ${ }^{\text {a }}$ \％ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 461 | 839 | 450 | 510 | 620 | 941 |
| GooseTails | 96 | 163 | 163 | 205 | 681 | 1，506 |

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Massachusetts |  | New Hampshire |  | New Jersey |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 5,054 | 4,994 | 4,818 | 5,780 | 12,344 | 15,480 |
| Domestic Mallard | 61 | 0 | 71 | 75 | 201 | 78 |
| Black Duck | 2,179 | 2,669 | 1,559 | 2,177 | 16,659 | 12,196 |
| Mallard x Black Hybrid | 61 | 132 | 71 | 150 | 803 | 1,407 |
| Mottled Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Gadwall | 91 | 106 | 0 | 0 | 100 | 2,971 |
| Wigeon | 0 | 159 | 71 | 0 | 201 | 625 |
| Green-winged Teal | 666 | 476 | 1,134 | 1,126 | 6,624 | 5,863 |
| Blue-winged/Cinnamon Teal | 121 | 53 | 142 | 150 | 301 | 235 |
| Northern Shoveler | 0 | 0 | 0 | 0 | 301 | 469 |
| Northern Pintail | 61 | 26 | 0 | 75 | 100 | 469 |
| Wood Duck | 2,452 | 2,563 | 4,322 | 6,681 | 9,534 | 5,942 |
| Redhead | 0 | 0 | 0 | 0 | 0 | 0 |
| Canvasback | 0 | 0 | 0 | 0 | 0 | 0 |
| Greater Scaup | 272 | 159 | 0 | 0 | 803 | 938 |
| Lesser Scaup | 545 | 79 | 0 | 75 | 1,305 | 1,329 |
| Ring-necked Duck | 272 | 26 | 0 | 75 | 100 | 391 |
| Goldeneyes | 545 | 106 | 0 | 75 | 0 | 0 |
| Bufflehead | 3,238 | 1,004 | 1,204 | 375 | 17,061 | 15,870 |
| Ruddy Duck | 0 | 26 | 0 | 0 | 803 | 313 |
| Long-tailed Duck | 381 | 175 | 0 | 200 | 5,571 | 1,988 |
| Eiders | 5,797 | 3,543 | 296 | 200 | 0 | 0 |
| Scoters | 508 | 131 | 1,332 | 1,333 | 2,243 | 3,267 |
| Hooded Merganser | 757 | 370 | 638 | 450 | 2,308 | 1,564 |
| Other Mergansers | 1,211 | 555 | 213 | 75 | 903 | 1,564 |
| Other Ducks | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Duck Harvest | 24,300 $\pm 15 \%$ | 17,400 $\pm 20 \%$ | 15,900 $\pm 26 \%$ | 19,100 $\pm 23 \%$ | 78,300 $\pm 15 \%$ | 73,000 $\pm 18 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 2,800 $\pm 17 \%$ | $3,300 \pm 20 \%$ | $2,500 \pm 16 \%$ | $3,000 \pm 19 \%$ | 7,300 $\pm 9 \%$ | 7,400 $\pm 11 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 15,400 $\pm 16 \%$ | 18,200 $\pm 27 \%$ | 16,000 $\pm 21 \%$ | 21,700 $\pm 41 \%$ | $47,000 \pm 13 \%$ | $48,800 \pm 15 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | $6.4 \pm 22 \%$ | $4.1 \pm 28 \%$ | 5.8 $\pm 30 \%$ | 5.8 $\pm 29 \%$ | $9.7 \pm 17 \%$ | $\underline{9.2 \pm 21 \%}$ |

Goose Species Composition

| Canada Goose | 10,806 | 7,107 | 4,824 | 6,022 | 36,046 | 51,666 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 0 | 15 | 0 | 0 | 4,711 | 1,265 |
| Blue Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| Ross' Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| White-fronted Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| Brant | 896 | 131 | 65 | 0 | 8,787 | 4,611 |
| Other Geese | 0 | 0 | 0 | 70 | 0 | 0 |
| Total Goose Harvest | 11,700 $\pm 26 \%$ | 7,300 $\pm 28 \%$ | 4,900 $\pm 23 \%$ | 6,100 $\pm 27 \%$ | 49,500 $\pm 30 \%$ | 57,500 $\pm 35 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 2,300 $\pm 16 \%$ | 2,400 $\pm 22 \%$ | 1,900 $\pm 18 \%$ | 2,100 $\pm 22 \%$ | 4,900 $\pm 11 \%$ | 6,500 $\pm 12 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 13,000 $\pm 18 \%$ | 10,200 $\pm 29 \%$ | 11,700 $\pm 24 \%$ | 11,500 $\pm 23 \%$ | 26,400 $\pm 17 \%$ | 35,000 $\pm 20 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | $4.6 \pm 30 \%$ | 3.0 $\pm 36 \%$ | 2.6 $\pm 30 \%$ | 2.8 $\pm 35 \%$ | 8.3 $\pm 32 \%$ | $8.2 \pm 37 \%$ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 4,200 $\pm 13 \%$ | 4,400 $\pm 16 \%$ | 2,800 $\pm 15 \%$ | 3,600 $\pm 18 \%$ | 9,200 $\mathbf{7}^{\text {\% }}$ | 10,200 ${ }^{\text {a }}$ \% |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 639 | 599 | 212 | 257 | 721 | 903 |
| GooseTails | 337 | 486 | 76 | 88 | 340 | 332 |

Table 1A．Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2012 and 2013 hunting seasons．

| Duck Species Composition | New York |  | North Carolina |  | Pennsylvania |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 86，131 | 91，543 | 42，303 | 24，439 | 37，947 | 38，476 |
| Domestic Mallard | 991 | 440 | 516 | 0 | 279 | 297 |
| Black Duck | 16，758 | 18，203 | 3，095 | 2，125 | 5，487 | 6，842 |
| Mallard x Black Hybrid | 901 | 1，407 | 774 | 213 | 651 | 892 |
| Mottled Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Gadwall | 2，162 | 4，397 | 15，993 | 20，401 | 2，232 | 3，570 |
| Wigeon | 3，243 | 5，364 | 5，417 | 16，151 | 558 | 397 |
| Green－winged Teal | 13，424 | 10，728 | 28，632 | 22，101 | 4，092 | 5，851 |
| Blue－winged／Cinnamon Teal | 1，622 | 1，671 | 11，607 | 5，738 | 1，302 | 397 |
| Northern Shoveler | 1，081 | 1，231 | 11，092 | 6，588 | 372 | 0 |
| Northern Pintail | 1，802 | 4，485 | 5，159 | 8，500 | 279 | 99 |
| Wood Duck | 18，830 | 22，600 | 119，686 | 77，354 | 22，136 | 22，511 |
| Redhead | 811 | 6，947 | 9，028 | 10，413 | 279 | 397 |
| Canvasback | 270 | 176 | 258 | 2，338 | 0 | 99 |
| Greater Scaup | 5，226 | 5，364 | 3，869 | 2，338 | 279 | 3，173 |
| Lesser Scaup | 7，748 | 3，605 | 78，415 | 28，689 | 1，674 | 1，983 |
| Ring－necked Duck | 2，433 | 2，990 | 22，957 | 14，663 | 744 | 793 |
| Goldeneyes | 8，739 | 8，178 | 0 | 0 | 558 | 1，190 |
| Bufflehead | 11，893 | 10，025 | 16，766 | 11，688 | 6，604 | 3，570 |
| Ruddy Duck | 270 | 352 | 3，095 | 3，188 | 744 | 496 |
| Long－tailed Duck | 8，749 | 6，753 | 0 | 213 | 0 | 99 |
| Eiders | 90 | 357 | 0 | 0 | 0 | 0 |
| Scoters | 8，209 | 9，274 | 4，127 | 5，738 | 0 | 297 |
| Hooded Merganser | 2，342 | 2，286 | 7，996 | 15，088 | 1，860 | 2，677 |
| Other Mergansers | 5，135 | 4，221 | 3，353 | 1，700 | 3，720 | 3，471 |
| Other Ducks | 0 | 0 | 258 | 0 | 0 | 99 |
| Total Duck Harvest | 208，900 $\pm 13 \%$ | 222，600 $\pm 20 \%$ | $394,400 \pm 18 \%$ | 279，700 $\pm 17 \%$ | 91，800 $\pm 19 \%$ | 97，700 $\pm 22 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 18，200 $\pm 8 \%$ | 20，500 $\pm 10 \%$ | $39,400 \pm 15 \%$ | $26,400 \pm 17 \%$ | 21，300 $\pm 20 \%$ | 20，200 $\pm 21 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 112，000 $\pm 11 \%$ | 117，400 $\pm 13 \%$ | 227，800 $\pm 21 \%$ | 165，000 $\pm 17 \%$ | 92，100 $\pm 20 \%$ | 98，500 $\pm 22 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | ＿10．6 | ＿10．2 $\pm 22 \%$ | 10．0さ24\％ | 10．6さ24\％ | 4．3 $\pm$ 27\％ | 4．8 $\pm$ 30\％ |

Goose Species Composition

| Canada Goose | 135，868 | 136，230 | 73，676 | 55，906 | 104，019 | 103，934 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 1，414 | 3，525 | 0 | 0 | 11，235 | 5，103 |
| Blue Goose | 0 | 476 | 0 | 0 | 362 | 249 |
| Ross＇Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| White－fronted Goose | 0 | 0 | 0 | 0 | 0 | 124 |
| Brant | 9，489 | 4，474 | 3，789 | 874 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 121 | 0 |
| Total Goose Harvest | 146，800 $\pm 16 \%$ | 144，700 $\pm 21 \%$ | 77，500 $\pm 60 \%$ | $56,800 \pm 44 \%$ | 115，700 $\pm 19 \%$ | 109，400 $\pm 26 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 16，200 $\pm 8 \%$ | 17，400 $\pm 10 \%$ | 17，100 $\pm 24 \%$ | 14，000 $\pm 27 \%$ | 26，300 $\pm 16 \%$ | $21,800 \pm 17 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 94，500 $\pm 12 \%$ | 101，300 $\pm 16 \%$ | 80，800 $\pm 49 \%$ | 56，600 $\pm 36 \%$ | 119，500 $\pm 17 \%$ | 114，200 $\pm 20 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 8．5 $\pm 18 \%$ | 8．1 $\pm 23 \%$ | 4．3 $\mathbf{\pm}$ 64\％ | 4．0 | 4．4 $\pm 25 \%$ | －5．0さ31\％ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 23，500 $\pm$ \％ | 26，200 $\mathbf{\pm}$ \％ | 42，300 $=15 \%$ | 27，700 | 36，100 $\pm 15 \%$ | 36，000 $\mathbf{1}$ 16\％ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 2，142 | 2，415 | 1，529 | 1，316 | 987 | 985 |
| GooseTails | 1，243 | 1，524 | 87 | 63 | 958 | 879 |

Table 1A．Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2012 and 2013 hunting seasons．

| Duck Species Composition | Rhode Island |  | South Carolina |  | Vermont |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 635 | 1，477 | 19，780 | 18，052 | 9，808 | 12，659 |
| Domestic Mallard | 0 | 0 | 1，846 | 792 | 0 | 0 |
| Black Duck | 1，069 | 1，403 | 527 | 792 | 2，206 | 2，640 |
| Mallard x Black Hybrid | 33 | 49 | 0 | 0 | 89 | 60 |
| Mottled Duck | 0 | 0 | 0 | 792 | 0 | 0 |
| Gadwall | 33 | 443 | 5，011 | 9，659 | 89 | 120 |
| Wigeon | 67 | 246 | 2，637 | 1，584 | 89 | 60 |
| Green－winged Teal | 33 | 98 | 11，341 | 14，885 | 2，415 | 4，200 |
| Blue－winged／Cinnamon Teal | 0 | 0 | 9，231 | 3，484 | 149 | 720 |
| Northern Shoveler | 0 | 0 | 6，857 | 6，334 | 60 | 60 |
| Northern Pintail | 0 | 25 | 527 | 2，534 | 239 | 60 |
| Wood Duck | 0 | 320 | 116，308 | 72，050 | 3，279 | 5，040 |
| Redhead | 0 | 0 | 791 | 950 | 0 | 0 |
| Canvasback | 0 | 0 | 264 | 158 | 0 | 0 |
| Greater Scaup | 702 | 1，256 | 264 | 317 | 0 | 240 |
| Lesser Scaup | 368 | 369 | 12，132 | 3，800 | 119 | 660 |
| Ring－necked Duck | 0 | 49 | 26，637 | 17，102 | 179 | 720 |
| Goldeneyes | 167 | 468 | 0 | 0 | 656 | 3，240 |
| Bufflehead | 869 | 960 | 4，484 | 1，108 | 209 | 360 |
| Ruddy Duck | 167 | 0 | 3，429 | 2，217 | 0 | 0 |
| Long－tailed Duck | 20 | 20 | 0 | 0 | 30 | 0 |
| Eiders | 372 | 563 | 0 | 0 | 0 | 0 |
| Scoters | 176 | 261 | 3，165 | 0 | 268 | 300 |
| Hooded Merganser | 167 | 542 | 8，967 | 4，276 | 149 | 360 |
| Other Mergansers | 535 | 1，059 | 791 | 158 | 477 | 420 |
| Other Ducks | 0 | 0 | 527 | 317 | 0 | 0 |
| Total Duck Harvest | 5，400 $\pm 23 \%$ | 9，600 $\pm 42 \%$ | 235，500 $\pm 30 \%$ | 161，400 $\pm 42 \%$ | 20，500 $\pm 15 \%$ | 31，900 $\pm 22 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | $500 \pm 17 \%$ | $900 \pm 14 \%$ | 20，500 $\pm 19 \%$ | 16，700 $\pm 22 \%$ | 2，100 $\pm 11 \%$ | $4,000 \pm 16 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | $3,600 \pm 22 \%$ | 6，600 $\pm 23 \%$ | 133，500 $\pm 26 \%$ | 121，400 $\pm 41 \%$ | 14，200 $\pm 15 \%$ | 22，400 $\pm 22 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | 10．6 $29 \%$ | $9.5 \pm 44 \%$ | 11．5 $\pm 35 \%$ | 9．6 $\pm 47 \%$ | 9．8 $\mathbf{+ 1 9 \%}$ | ＿8．0さ27\％ |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 1，531 | 4，715 | 39，744 | 17，170 | 8，566 | 9，591 |
| Snow Goose | 0 | 45 | 0 | 0 | 34 | 0 |
| Blue Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| Ross＇Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| White－fronted Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| Brant | 387 | 224 | 0 | 0 | 204 | 40 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 1，900 $\pm 28 \%$ | 5，000 $\pm 55 \%$ | 39，700 $\pm 101 \%$ | 17，200 $\pm 60 \%$ | 8，800 $\pm 29 \%$ | 9，600 $\pm 31 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 400 $\pm 21 \%$ | $800 \pm 18 \%$ | 5，900 $\pm 34 \%$ | 5，500 $238 \%$ | 1，700 $\pm 13 \%$ | 2，600 $\pm 19 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 2，100 $\pm 20 \%$ | 4，900 $\pm 23 \%$ | 28，700 $\pm 55 \%$ | 38，700 $\pm 79 \%$ | $9,100 \pm 18 \%$ | 12，500 $\pm 27 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 3．8 $\pm 35 \%$ | 6．2さ58\％ | 6．8土106\％ | 3．1 | 5．3 $\pm 31 \%$ | 3．7さ36\％ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 600 $15 \%$ | 1，100 $-12 \%$ | 21，200 | 17，100 | 2，700 $\pm 10 \%$ | 4，600 |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 174 | 398 | 893 | 1，019 | 688 | 532 |
| GooseTails | 140 | 124 | 34 | 50 | 259 | 240 |

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Virginia |  | West Virginia |  | Flyway Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 25,265 | 33,191 | 6,063 | 3,750 | 325,487 | 328,029 |
| Domestic Mallard | 0 | 108 | 89 | 68 | 5,844 | 3,208 |
| Black Duck | 9,534 | 5,946 | 981 | 473 | 73,871 | 75,104 |
| Mallard x Black Hybrid | 1,112 | 432 | 268 | 135 | 5,779 | 6,964 |
| Mottled Duck | 0 | 0 | 0 | 0 | 7,939 | 10,133 |
| Gadwall | 7,468 | 16,974 | 268 | 304 | 49,318 | 80,107 |
| Wigeon | 3,655 | 1,946 | 0 | 68 | 23,837 | 35,022 |
| Green-winged Teal | 13,665 | 8,000 | 0 | 372 | 124,683 | 113,113 |
| Blue-winged/Cinnamon Teal | 2,542 | 1,189 | 0 | 68 | 108,568 | 75,663 |
| Northern Shoveler | 2,066 | 1,514 | 0 | 0 | 33,027 | 27,862 |
| Northern Pintail | 953 | 1,730 | 0 | 101 | 12,609 | 21,367 |
| Wood Duck | 20,498 | 17,190 | 1,873 | 946 | 445,354 | 326,423 |
| Redhead | 477 | 2,162 | 0 | 68 | 19,394 | 35,902 |
| Canvasback | 318 | 3,892 | 0 | 68 | 3,903 | 13,111 |
| Greater Scaup | 1,271 | 1,730 | 0 | 68 | 19,231 | 23,227 |
| Lesser Scaup | 5,085 | 1,946 | 0 | 34 | 153,057 | 60,416 |
| Ring-necked Duck | 7,468 | 12,865 | 0 | 34 | 179,582 | 143,503 |
| Goldeneyes | 477 | 432 | 0 | 0 | 12,687 | 14,689 |
| Bufflehead | 25,583 | 19,893 | 357 | 68 | 115,572 | 84,955 |
| Ruddy Duck | 2,066 | 1,297 | 89 | 0 | 14,397 | 14,353 |
| Long-tailed Duck | 0 | 874 | 0 | 0 | 21,677 | 16,302 |
| Eiders | 0 | 0 | 0 | 0 | 11,725 | 7,778 |
| Scoters | 6,343 | 2,184 | 0 | 0 | 38,419 | 38,947 |
| Hooded Merganser | 3,972 | 3,892 | 89 | 101 | 39,200 | 41,411 |
| Other Mergansers | 318 | 649 | 268 | 101 | 19,162 | 15,910 |
| Other Ducks | 0 | 0 | 0 | 0 | 7,993 | 10,630 |
| Total Duck Harvest | 140,100 $\pm 29 \%$ | 140,000 $\pm 20 \%$ | 10,300 $\pm 44 \%$ | 6,800 $\pm 55 \%$ | 1,872,300 $\pm 8 \%$ | 1,624,100 $\pm 8 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 15,600 $\pm 16 \%$ | $14,400 \pm 18 \%$ | 1,100 $\pm 19 \%$ | $800 \pm 28 \%$ | 192,100 | 174,700 |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | $86,100 \pm 18 \%$ | 83,800 $\pm 20 \%$ | 6,800 $\pm 31 \%$ | $5,200 \pm 49 \%$ | 1,104,200 $\pm 7 \%$ | 1,036,100 $\pm 8 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | 8.6さ33\% | - - $9.5 \pm 27 \%$ | _ 9.1 $\pm 48 \%$ | 8.1 $\pm 62 \%$ | - - - - - | - - |

Goose Species Composition

| Canada Goose | 51,735 | 57,812 | 5,763 | 4,885 | 696,220 | 675,031 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 263 | 136 | 0 | 0 | 37,729 | 29,255 |
| Blue Goose | 0 | 0 | 0 | 0 | 3,522 | 1,227 |
| Ross' Goose | 0 | 0 | 0 | 0 | 0 | 0 |
| White-fronted Goose | 0 | 0 | 0 | 0 | 0 | 124 |
| Brant | 1,857 | 1,214 | 0 | 0 | 27,550 | 11,922 |
| Other Geese | 0 | 0 | 0 | 0 | 286 | 70 |
| Total Goose Harvest | $53,900 \pm 22 \%$ | 59,200 $\pm 24 \%$ | 5,800 $\pm 67 \%$ | 4,900 $\pm 52 \%$ | 765,300 $\pm 10 \%$ | 717,600 $\pm 9 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 13,400 $\pm 16 \%$ | 13,500 $\pm 17 \%$ | 1,000 $\pm 20 \%$ | 800 $\pm 29 \%$ | 130,900 | 126,500 |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 65,300 $\pm 18 \%$ | 58,900 $\pm 21 \%$ | 5,800 $\pm 40 \%$ | $3,700 \pm 41 \%$ | 695,500 $\pm 8 \%$ | 651,700 $\pm 8 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 3.9 $\pm 27 \%$ | \% |  |  |  |  |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 19,300 $14 \%$ | 19,700 $15 \%$ | 1,300 $\pm 18 \%$ | 900 $\pm 27 \%$ | 238,100 | 224,900 |
| Sample Sizes | 844 | 1,295 |  |  |  | 14,835 |
| DuckWings |  |  | 116 | 202 | 13,688 |  |
| GooseTails | 409 | 428 | 65 | 161 | 5,300 | 6,850 |


| Duck Species Composition | Alabama |  | Arkansas |  | Illinois |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 14，151 | 22，040 | 529，529 | 422，951 | 197，579 | 177，474 |
| Domestic Mallard | 0 | 212 | 460 | 260 | 0 | 0 |
| Black Duck | 0 | 212 | 920 | 260 | 1，889 | 476 |
| Mallard x Black Hybrid | 0 | 0 | 0 | 0 | 0 | 952 |
| Mottled Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Gadwall | 49，866 | 44，292 | 224，969 | 184，343 | 32，867 | 37，588 |
| Wigeon | 0 | 2，755 | 34，965 | 12，463 | 2，644 | 4，758 |
| Green－winged Teal | 10，108 | 13，139 | 214，388 | 123，328 | 33，623 | 32，830 |
| Blue－winged／Cinnamon Teal | 27，628 | 15，470 | 25，763 | 4，673 | 24，178 | 17，129 |
| Northern Shoveler | 8，760 | 4，238 | 130，197 | 70，881 | 24，934 | 23，790 |
| Northern Pintail | 674 | 1，060 | 34，044 | 31，157 | 5，289 | 8，564 |
| Wood Duck | 52，561 | 62，942 | 62，108 | 50，889 | 20，778 | 58，999 |
| Redhead | 1，348 | 5，722 | 6，441 | 5，452 | 4，911 | 2，855 |
| Canvasback | 2，695 | 5，934 | 1，380 | 3，895 | 4，911 | 4，282 |
| Greater Scaup | 2，022 | 212 | 3，220 | 1，039 | 3，400 | 476 |
| Lesser Scaup | 12，129 | 1，695 | 25，763 | 1，558 | 19，267 | 3，331 |
| Ring－necked Duck | 22，237 | 9，749 | 25，763 | 13，242 | 10，956 | 11，419 |
| Goldeneyes | 0 | 636 | 460 | 0 | 3，022 | 2，379 |
| Bufflehead | 2，695 | 2，119 | 2，300 | 1，298 | 6，800 | 3，806 |
| Ruddy Duck | 2，695 | 212 | 920 | 0 | 2，267 | 0 |
| Long－tailed Duck | 0 | 0 | 0 | 260 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 1，348 | 212 | 0 | 260 | 0 | 0 |
| Hooded Merganser | 0 | 2，331 | 4，601 | 5，193 | 1，889 | 3，806 |
| Other Mergansers | 0 | 0 | 460 | 0 | 0 | 1，903 |
| Other Ducks | 0 | 0 | 0 | 260 | 0 | 0 |
| Total Duck Harvest | 210，900 $\pm 24 \%$ | 195，200 $\pm 25 \%$ | 1，328，700 $\pm 13 \%$ | 933，700 $\pm 17 \%$ | 401，200 $\pm 23 \%$ | 396，800 $\pm 18 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 17，000 $\pm 18 \%$ | 17，000 $\pm 19 \%$ | $57,300 \pm 9 \%$ | $44,900 \pm 11 \%$ | 26，200 $\pm 11 \%$ | $28,500 \pm 12 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 104，300 $\pm 21 \%$ | 98，900 $\pm 32 \%$ | $472,000 \pm 11 \%$ | $305,200 \pm 15 \%$ | 265，600 $\pm 16 \%$ | 248，600 $\pm 17 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | 12．4土29\％ | 11．5 $\pm 31 \%$ | 23．2 $\pm 16 \%$ | 20．8さ20\％ | 15．3土25\％ | 13．9 $\pm 22 \%$ |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 19，729 | 30，927 | 9，455 | 13，552 | 92，719 | 111，185 |
| Snow Goose | 0 | 0 | 39，079 | 63，243 | 4，560 | 950 |
| Blue Goose | 0 | 0 | 17，018 | 31，621 | 2，280 | 475 |
| Ross＇Goose | 0 | 0 | 3，782 | 3，614 | 0 | 0 |
| White－fronted Goose | 0 | 0 | 46，642 | 72，278 | 760 | 5，227 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 19，700 $\pm 62 \%$ | 30，900 $\pm 96 \%$ | 116，000 $\pm 25 \%$ | 184，300 $554 \%$ | 100，300 $\pm 28 \%$ | 117，800 $\pm 23 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 6，200 $\pm 31 \%$ | 6，000 $\pm 34 \%$ | 20，300 $\pm 15 \%$ | 14，100 $\pm 20 \%$ | 19，600 $\pm 13 \%$ | $23,100 \pm 15 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 24，000 $\pm 40 \%$ | 30，100 $\pm 54 \%$ | 116，100 $\pm 20 \%$ | 73，100 $\pm 26 \%$ | 179，000 $\pm 21 \%$ | 173，100 $\pm 21 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | －3．2さ $69 \%$ | 5．1 $\pm \underline{102 \%}$ | ＿5．7さ29\％ | ＿13．1さ58\％ | ＿5．1 | ＿5．1 $\pm 27 \%$ |
| Active Waterfowl Hunters $^{\text {c }}$ | －17，800 $-17 \%$ |  |  | 45，700 $\mathbf{- 1 1 \%}$ | 31，100 $\pm 10 \%$ | 34，100 $\pm 11 \%$ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 313 | 921 | 2，888 | 3，596 | 1，062 | 834 |
| GooseTails | 6 | 21 | 184 | 204 | 264 | 248 |


| Duck Species Composition | Indiana |  | Iowa |  | Kentucky |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 78，021 | 63，029 | 49，993 | 66，628 | 24，594 | 71，651 |
| Domestic Mallard | 0 | 275 | 0 | 0 | 0 | 0 |
| Black Duck | 3，901 | 2，334 | 180 | 0 | 1，097 | 4，869 |
| Mallard x Black Hybrid | 0 | 412 | 0 | 0 | 313 | 1，391 |
| Mottled Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Gadwall | 10，620 | 6，042 | 6，136 | 13，817 | 5，169 | 10，435 |
| Wigeon | 1，734 | 1，099 | 722 | 3，685 | 627 | 696 |
| Green－winged Teal | 6，935 | 6，591 | 12，995 | 19，344 | 470 | 2，783 |
| Blue－winged／Cinnamon Teal | 4，985 | 3，433 | 14，799 | 42，679 | 313 | 696 |
| Northern Shoveler | 5，852 | 1，785 | 3，610 | 5，527 | 1，410 | 1，391 |
| Northern Pintail | 2，167 | 1，099 | 1，624 | 4，606 | 0 | 696 |
| Wood Duck | 8，669 | 10，024 | 18，229 | 35，924 | 3，916 | 8，348 |
| Redhead | 650 | 961 | 2，527 | 3，070 | 313 | 696 |
| Canvasback | 433 | 549 | 1，263 | 921 | 0 | 0 |
| Greater Scaup | 0 | 137 | 0 | 0 | 0 | 3，478 |
| Lesser Scaup | 650 | 0 | 2，346 | 1，535 | 1，410 | 6，956 |
| Ring－necked Duck | 3，034 | 961 | 541 | 2，456 | 1，723 | 696 |
| Goldeneyes | 433 | 137 | 180 | 0 | 313 | 4，174 |
| Bufflehead | 650 | 824 | 1，985 | 921 | 313 | 696 |
| Ruddy Duck | 217 | 275 | 0 | 0 | 0 | 0 |
| Long－tailed Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 0 | 0 | 0 | 0 |
| Hooded Merganser | 1，517 | 412 | 541 | 1，228 | 313 | 5，565 |
| Other Mergansers | 867 | 0 | 0 | 0 | 0 | 0 |
| Other Ducks | 217 | 0 | 0 | 0 | 0 | 0 |
| Total Duck Harvest | 131，600 $\pm 17 \%$ | 100，400 $\pm 17 \%$ | 117，700 $\pm 23 \%$ | 202，300 $\pm 26 \%$ | 42，300 $\pm 65 \%$ | 125，200 $\pm 53 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | $12,000 \pm 13 \%$ | 9，000 $\pm 13 \%$ | 12，500 $\pm 16 \%$ | $14,400 \pm 18 \%$ | $4,100 \pm 56 \%$ | 10，700 $\pm 37 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 96，400 $\pm 14 \%$ | 71，200 $\pm 15 \%$ | 69，700 $\pm 21 \%$ | 128，500 $\pm 30 \%$ | 28，600 $\pm 67 \%$ | $68,500 \pm 53 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | $11.0 \pm 21 \%$ | 11．1 $\pm 21 \%$ | －9．4土28\％ | 14．1 $\pm 32 \%$ | 10．2土86\％ | 11．7 $\pm$ 64\％ |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 60，036 | 54，936 | 38，931 | 73，742 | 6，641 | 40，860 |
| Snow Goose | 0 | 0 | 0 | 0 | 341 | 0 |
| Blue Goose | 0 | 0 | 138 | 0 | 0 | 0 |
| Ross＇Goose | 366 | 0 | 0 | 0 | 170 | 0 |
| White－fronted Goose | 0 | 0 | 275 | 0 | 170 | 0 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 60，400 $\pm 26 \%$ | $54,900 \pm 20 \%$ | $39,300 \pm 33 \%$ | 73，700 $\pm 35 \%$ | 7，300 $\pm 74 \%$ | 40，900 $\pm 71 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 10，800 $\pm 13 \%$ | 9，600 $\pm 11 \%$ | 7，900 $\pm 20 \%$ | 11，200 $\pm 23 \%$ | 3，700 $\pm 62 \%$ | 9，100 $\pm 37 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 68，100 $\pm 16 \%$ | 68，000 $\pm 15 \%$ | $54,600 \pm 42 \%$ | 99，100 $\pm 35 \%$ | 22，300 $\pm 72 \%$ | 84，200 $\pm 63 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 5．6 $\pm 30 \%$ | 5．7さ23\％ | 5．0 $\pm 38 \%$ | 6．6さ －$_{\text {－}}$ | 2．096\％ | ＿4．5 $\pm$ 80\％ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 14，300 $12 \%$ | 10，200 $12 \%$ | 13，800 $\mathbf{1 0}^{15 \%}$ | 15，900 $18 \%$ | 4，100 $\mathbf{-}$ 57\％ | 11，600 $\mathbf{-}$ 35\％ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 607 | 731 | 652 | 659 | 270 | 180 |
| GooseTails | 165 | 188 | 286 | 141 | 43 | 19 |

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Louisiana |  | Michigan |  | Minnesota |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 164,994 | 130,935 | 127,535 | 114,844 | 197,316 | 166,366 |
| Domestic Mallard | 0 | 0 | 0 | 185 | 0 | 0 |
| Black Duck | 1,406 | 775 | 6,712 | 8,150 | 587 | 0 |
| Mallard x Black Hybrid | 0 | 387 | 814 | 556 | 587 | 0 |
| Mottled Duck | 40,311 | 35,639 | 0 | 0 | 0 | 0 |
| Gadwall | 687,161 | 484,615 | 5,492 | 6,483 | 18,792 | 15,254 |
| Wigeon | 61,404 | 36,801 | 3,458 | 3,890 | 9,983 | 4,767 |
| Green-winged Teal | 447,639 | 431,157 | 16,476 | 17,968 | 56,376 | 33,368 |
| Blue-winged/Cinnamon Teal | 575,134 | 633,758 | 7,933 | 3,705 | 123,322 | 115,360 |
| Northern Shoveler | 118,589 | 146,431 | 1,424 | 2,223 | 15,856 | 15,731 |
| Northern Pintail | 72,185 | 66,630 | 7,729 | 7,409 | 5,285 | 8,104 |
| Wood Duck | 166,869 | 158,439 | 59,394 | 28,341 | 184,396 | 149,681 |
| Redhead | 28,124 | 46,486 | 18,307 | 17,968 | 22,315 | 19,544 |
| Canvasback | 27,186 | 36,801 | 3,458 | 2,408 | 4,111 | 8,104 |
| Greater Scaup | 6,562 | 1,162 | 10,374 | 8,335 | 2,936 | 3,814 |
| Lesser Scaup | 194,524 | 20,919 | 8,340 | 11,855 | 17,617 | 10,011 |
| Ring-necked Duck | 145,776 | 134,034 | 6,509 | 6,113 | 75,755 | 31,938 |
| Goldeneyes | 469 | 775 | 3,661 | 7,409 | 4,111 | 1,430 |
| Bufflehead | 4,219 | 3,099 | 23,392 | 34,268 | 3,523 | 14,777 |
| Ruddy Duck | 4,219 | 1,162 | 1,627 | 1,297 | 2,349 | 0 |
| Long-tailed Duck | 0 | 387 | 1,627 | 3,519 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 2,237 | 1,297 | 0 | 0 |
| Hooded Merganser | 12,187 | 9,685 | 1,220 | 3,149 | 4,111 | 9,057 |
| Other Mergansers | 0 | 2,324 | 2,441 | 4,816 | 0 | 0 |
| Other Ducks | 3,750 | 8,135 | 0 | 0 | 0 | 477 |
| Total Duck Harvest | 2,762,700 $\pm 8 \%$ | 2,390,500 $\pm 21 \%$ | 320,200 $\pm 15 \%$ | 296,200 $\pm 26 \%$ | 749,300 $\pm 13 \%$ | 607,800 $\pm 14 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 103,600 $\pm 5 \%$ | $77,600 \pm 14 \%$ | $37,200 \pm 11 \%$ | $31,800 \pm 15 \%$ | $77,700 \pm 9 \%$ | $52,200 \pm 11 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 916,300 $\pm 8 \%$ | 766,200 $\pm 19 \%$ | 229,900 $\pm 16 \%$ | 197,300 $\pm 22 \%$ | $503,200 \pm 12 \%$ | $312,100 \pm 12 \%$ |



Goose Species Composition

| Canada Goose | 571 | 0 | 144,481 | 148,002 | 235,856 | 191,577 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 6,852 | 8,389 | 222 | 244 | 0 | 0 |
| Blue Goose | 16,559 | 5,942 | 0 | 0 | 870 | 0 |
| Ross' Goose | 2,284 | 1,049 | 0 | 0 | 0 | 0 |
| White-fronted Goose | 27,978 | 20,973 | 0 | 0 | 0 | 0 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 54,200 $\pm 26 \%$ | $36,400 \pm 50 \%$ | 144,700 $\pm 18 \%$ | 148,200 $\pm 35 \%$ | 236,700 $\pm 16 \%$ | 191,600 $\pm 19 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 9,300 $\pm 20 \%$ | 7,200 $\pm 45 \%$ | $31,900 \pm 11 \%$ | $26,400 \pm 18 \%$ | $58,900 \pm 10 \%$ | $42,400 \pm 14 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 47,100 $\pm 25 \%$ | 60,200 $\pm 67 \%$ | 183,300 $\pm 15 \%$ | 159,900 $\pm 25 \%$ | 355,400 $\pm 14 \%$ | 239,500 $\pm 19 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 5.8 $\pm 33 \%$ | 5.0 $068 \%$ | $4.5 \pm 21 \%$ | $5.6 \pm 39 \%$ | 4.0 $\pm 19 \%$ | 4.5 $\pm 24 \%$ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 103,900 $\pm 5 \%$ | 77,600 $14 \%$ | 44,200 $\pm 10 \%$ | 37,500 $\pm 14 \%$ | 90,600 $\mathbf{0}^{8 \%}$ | 58,600 $\pm 11 \%$ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 5,894 | 6,171 | 1,574 | 1,599 | 1,276 | 1,275 |
| GooseTails | 95 | 104 | 652 | 608 | 272 | 264 |

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Mississippi |  | Missouri |  | Ohio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 59,911 | 91,048 | 189,411 | 200,700 | 44,567 | 104,630 |
| Domestic Mallard | 0 | 0 | 0 | 0 | 186 | 345 |
| Black Duck | 422 | 245 | 230 | 0 | 3,170 | 5,525 |
| Mallard x Black Hybrid | 0 | 0 | 0 | 290 | 186 | 1,381 |
| Mottled Duck | 422 | 736 | 0 | 0 | 0 | 0 |
| Gadwall | 69,193 | 61,844 | 74,707 | 67,769 | 6,713 | 9,323 |
| Wigeon | 2,953 | 5,890 | 9,884 | 7,240 | 3,170 | 2,072 |
| Green-winged Teal | 32,909 | 34,848 | 48,962 | 65,162 | 6,713 | 16,575 |
| Blue-winged/Cinnamon Teal | 16,876 | 11,289 | 50,801 | 39,677 | 7,459 | 6,906 |
| Northern Shoveler | 32,065 | 31,658 | 30,113 | 24,617 | 3,170 | 5,870 |
| Northern Pintail | 6,751 | 3,190 | 11,264 | 11,005 | 1,865 | 5,525 |
| Wood Duck | 54,848 | 50,555 | 13,792 | 13,612 | 15,664 | 19,683 |
| Redhead | 2,531 | 491 | 1,839 | 2,027 | 1,678 | 3,108 |
| Canvasback | 844 | 1,472 | 919 | 290 | 0 | 345 |
| Greater Scaup | 0 | 0 | 0 | 290 | 1,305 | 2,072 |
| Lesser Scaup | 3,797 | 982 | 2,069 | 5,503 | 2,797 | 7,597 |
| Ring-necked Duck | 14,345 | 4,908 | 6,206 | 6,371 | 1,865 | 2,417 |
| Goldeneyes | 0 | 0 | 0 | 0 | 373 | 1,036 |
| Bufflehead | 1,266 | 245 | 1,379 | 290 | 1,678 | 3,798 |
| Ruddy Duck | 1,266 | 0 | 919 | 579 | 1,865 | 2,763 |
| Long-tailed Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 230 | 0 | 0 | 0 |
| Hooded Merganser | 6,329 | 1,472 | 919 | 1,158 | 1,678 | 1,036 |
| Other Mergansers | 0 | 0 | 1,149 | 0 | 559 | 691 |
| Other Ducks | 0 | 0 | 230 | 0 | 186 | 0 |
| Total Duck Harvest | 306,700 $\pm 17 \%$ | 300,900 $\pm 17 \%$ | 445,000 $\pm 24 \%$ | 446,600 $23 \%$ | 106,800 $\pm 25 \%$ | 202,700 $\pm 18 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 14,000 $\pm 15 \%$ | 15,100 $\pm 16 \%$ | $35,400 \pm 13 \%$ | 25,500 $\pm 14 \%$ | 12,500 $\pm 20 \%$ | $22,400 \pm 19 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 100,900 $\pm 13 \%$ | 96,300 $\pm 15 \%$ | 213,600 $\pm 19 \%$ | 193,700 $\pm 22 \%$ | 89,400 $\pm 26 \%$ | 165,800 $\pm 19 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | $22.0 \pm 22 \%$ | 19.9 $\pm 23 \%$ | 12.6 $\pm 27 \%$ | 17.5 $\pm 27 \%$ | 8.5 $\pm 32 \%$ | $9.1 \pm 26 \%$ |

Goose Species Composition

| Canada Goose | 5,286 | 7,181 | 39,117 | 35,094 | 59,375 | 128,515 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 0 | 3,590 | 9,601 | 9,172 | 0 | 0 |
| Blue Goose | 0 | 0 | 5,690 | 7,976 | 0 | 0 |
| Ross' Goose | 1,762 | 0 | 356 | 1,595 | 0 | 0 |
| White-fronted Goose | 5,286 | 22,440 | 2,134 | 798 | 0 | 0 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 12,300 $\pm 41 \%$ | $33,200 \pm 60 \%$ | $56,900 \pm 35 \%$ | $54,600 \pm 29 \%$ | $59,400 \pm 30 \%$ | 128,500 $\pm 18 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | $3,400 \pm 31 \%$ | $4,800 \pm 32 \%$ | 14,000 $\pm 19 \%$ | 11,400 $\pm 19 \%$ | 11,200 $\pm 19 \%$ | $23,500 \pm 18 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 11,700 $\pm 31 \%$ | 23,500 $\pm 38 \%$ | 69,400 $\pm 26 \%$ | 58,800 $\pm 30 \%$ | 86,100 $\pm 22 \%$ | 160,300 $\pm 23 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 3.6 $\pm 52 \%$ | $6.9 \pm 68 \%$ | $4.1 \pm 40 \%$ | 4.8 $\pm 35 \%$ | 5.3 $\pm$ 35\% | 5.5 $\pm 25 \%$ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 14,000 $15 \%$ | 15,100 $\pm 16 \%$ | 38,700 $\pm 12 \%$ | 27,400 $13 \%$ | 15,300 $\pm 18 \%$ | 26,400 $\pm 18 \%$ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 727 | 1,226 | 1,936 | 1,542 | 573 | 587 |
| GooseTails | 7 | 37 | 160 | 137 | 356 | 337 |


| Duck Species Composition | Tennessee |  | Wisconsin |  | Flyway Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 92,700 | 94,094 | 112,251 | 110,610 | 1,882,553 | 1,837,000 |
| Domestic Mallard | 0 | 0 | 0 | 0 | 647 | 1,277 |
| Black Duck | 0 | 1,045 | 174 | 1,058 | 20,688 | 24,951 |
| Mallard x Black Hybrid | 0 | 0 | 174 | 265 | 2,074 | 5,633 |
| Mottled Duck | 0 | 0 | 0 | 0 | 40,733 | 36,375 |
| Gadwall | 37,080 | 49,138 | 11,468 | 18,523 | 1,240,234 | 1,009,467 |
| Wigeon | 1,766 | 3,136 | 3,823 | 6,351 | 137,133 | 95,602 |
| Green-winged Teal | 13,243 | 27,183 | 31,625 | 24,080 | 932,461 | 848,357 |
| Blue-winged/Cinnamon Teal | 15,891 | 2,091 | 37,012 | 46,043 | 932,096 | 942,908 |
| Northern Shoveler | 13,243 | 16,728 | 1,911 | 4,498 | 391,133 | 355,369 |
| Northern Pintail | 4,414 | 2,091 | 3,301 | 3,969 | 156,593 | 155,104 |
| Wood Duck | 51,206 | 23,001 | 67,594 | 104,524 | 780,024 | 774,961 |
| Redhead | 1,766 | 1,045 | 6,429 | 12,172 | 99,179 | 121,598 |
| Canvasback | 883 | 1,045 | 3,997 | 10,055 | 52,081 | 76,103 |
| Greater Scaup | 1,766 | 0 | 9,383 | 28,049 | 40,968 | 49,064 |
| Lesser Scaup | 883 | 0 | 15,986 | 25,932 | 307,579 | 97,873 |
| Ring-necked Duck | 2,649 | 6,273 | 7,298 | 10,320 | 324,658 | 240,898 |
| Goldeneyes | 0 | 2,091 | 13,032 | 9,526 | 26,055 | 29,593 |
| Bufflehead | 883 | 0 | 16,334 | 22,228 | 67,418 | 88,370 |
| Ruddy Duck | 883 | 0 | 1,216 | 2,646 | 20,443 | 8,933 |
| Long-tailed Duck | 0 | 0 | 4,865 | 8,732 | 6,493 | 12,899 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 174 | 1,323 | 3,989 | 3,091 |
| Hooded Merganser | 9,711 | 0 | 869 | 1,323 | 45,886 | 45,416 |
| Other Mergansers | 0 | 0 | 1,738 | 3,440 | 7,214 | 13,174 |
| Other Ducks | 0 | 0 | 0 | 0 | 4,383 | 8,871 |
| Total Duck Harvest | $249,000 \pm 44 \%$ | 229,000 $\pm 56 \%$ | $350,700 \pm 11 \%$ | $455,700 \pm 16 \%$ | 7,522,700 $\pm 5 \%$ | $6,882,900 \pm 8 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 15,100 $\pm 23 \%$ | 9,600 $\pm 35 \%$ | $47,800 \pm 12 \%$ | $53,100 \pm 15 \%$ | 472,300 | 411,600 |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 105,500 $\pm 26 \%$ | $84,500 \pm 48 \%$ | $309,800 \pm 15 \%$ | 370,500 $\pm 19 \%$ | 3,505,200 $\pm 4 \%$ | $3,107,200 \pm 7 \%$ |
|  |  |  |  |  |  |  |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 29,595 | 11,966 | 83,756 | 85,831 | 825,546 | 933,368 |
| Snow Goose | 0 | 499 | 0 | 0 | 60,654 | 86,087 |
| Blue Goose | 0 | 997 | 0 | 256 | 42,554 | 47,268 |
| Ross' Goose | 0 | 0 | 0 | 0 | 8,720 | 6,258 |
| White-fronted Goose | 0 | 499 | 0 | 256 | 83,245 | 122,469 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 29,600 $\pm 52 \%$ | 14,000 $\pm 52 \%$ | $83,800 \pm 17 \%$ | 86,300 $\pm 22 \%$ | 1,020,700 $\pm 7 \%$ | 1,195,500 $\pm 12 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 7,800 $\pm 33 \%$ | $4,600 \pm 49 \%$ | $36,700 \pm 13 \%$ | $30,000 \pm 16 \%$ | 241,500 | 223,400 |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 63,500 $\pm 56 \%$ | 47,200 $\pm 64 \%$ | 240,300 $\pm 19 \%$ | 220,500 $\pm 20 \%$ | 1,520,900 $\pm 7 \%$ | 1,497,500 $\pm 8 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | $3.8 \pm 61 \%$ | 3.0さ72\% | 2.3 $\pm 21 \%$ | 2.9 27\% $^{\text {a }}$ |  |  |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 15,200 $23 \%$ | 9,600 $\pm 35 \%$ | 59,800 $\pm 11 \%$ | $58,300 \pm 14 \%$ | 520,500 | 445,400 |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 282 | 219 | 2,018 | 1,722 | 20,072 | 21,262 |
| GooseTails | 16 | 28 | 495 | 337 | 3,001 | 2,673 |


| Duck Species Composition | Colorado |  | Kansas |  | Nebraska |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 43,152 | 44,511 | 78,157 | 94,432 | 94,630 | 82,415 |
| Domestic Mallard | 0 | 0 | 159 | 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 | 7,492 | 16,514 | 32,473 | 34,188 | 8,893 | 15,257 |
| Wigeon | 5,394 | 10,936 | 7,959 | 9,460 | 7,782 | 8,737 |
| Green-winged Teal | 11,787 | 13,889 | 13,530 | 35,184 | 15,563 | 28,037 |
| Blue-winged/Cinnamon Teal | 8,291 | 11,921 | 21,330 | 48,627 | 16,258 | 35,340 |
| Northern Shoveler | 3,596 | 11,593 | 2,706 | 12,945 | 3,057 | 6,259 |
| Northern Pintail | 1,398 | 3,390 | 6,367 | 12,115 | 1,806 | 3,782 |
| Wood Duck | 599 | 1,312 | 1,114 | 2,655 | 973 | 2,608 |
| Redhead | 1,398 | 2,625 | 2,706 | 7,468 | 1,667 | 3,130 |
| Canvasback | 300 | 109 | 637 | 1,494 | 973 | 0 |
| Greater Scaup | 100 | 109 | 0 | 166 | 0 | 261 |
| Lesser Scaup | 300 | 1,422 | 1,751 | 996 | 1,112 | 1,174 |
| Ring-necked Duck | 1,598 | 2,734 | 3,661 | 4,149 | 1,251 | 1,304 |
| Goldeneyes | 899 | 1,859 | 955 | 664 | 973 | 782 |
| Bufflehead | 499 | 547 | 0 | 498 | 278 | 652 |
| Ruddy Duck | 200 | 219 | 159 | 498 | 0 | 130 |
| 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 | 0 | 109 | 796 | 332 | 139 | 391 |
| Other Mergansers | 899 | 437 | 159 | 0 | 139 | 130 |
| Other Ducks | 0 | 109 | 0 | 0 | 0 | 0 |
| Total Duck Harvest | $87,900 \pm 15 \%$ | 124,300 $\pm 18 \%$ | 174,600 $\pm 27 \%$ | 265,900 $\pm 23 \%$ | 155,500 $\pm 14 \%$ | 190,400 $\pm 17 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 11,100 $\pm 15 \%$ | 11,900 $\pm 14 \%$ | $12,700 \pm 16 \%$ | 16,800 $\pm 16 \%$ | 13,600 $\pm 15 \%$ | 13,000 $\pm 15 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | $57,400 \pm 18 \%$ | $77,100 \pm 19 \%$ | 90,900 $\pm 21 \%$ | 105,300 $\pm 19 \%$ | $93,100 \pm 13 \%$ | 101,200 $\pm 16 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | 7.9さ21\% | 10.5さ23\% | 13.7 $\pm 31 \%$ | 15.8 $\pm 28 \%$ | 11.4 $\pm 21 \%$ | 14.7 $\pm 22 \%$ |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 94,111 | 99,945 | 72,204 | 108,657 | 97,777 | 111,033 |
| Snow Goose | 3,137 | 3,543 | 8,677 | 17,697 | 14,193 | 13,713 |
| Blue Goose | 224 | 0 | 1,240 | 3,539 | 1,051 | 5,308 |
| Ross' Goose | 224 | 1,492 | 3,719 | 6,017 | 263 | 2,875 |
| White-fronted Goose | 448 | 559 | 7,127 | 15,927 | 526 | 664 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 98,100 $\pm 18 \%$ | 105,500 $\pm 16 \%$ | 93,000 $\pm 27 \%$ | 151,800 $\pm 29 \%$ | 113,800 $\pm 21 \%$ | 133,600 $\pm 22 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 13,900 $\pm 14 \%$ | 14,300 $\pm 14 \%$ | 11,200 $\pm 17 \%$ | 15,500 $\pm 16 \%$ | $14,300 \pm 13 \%$ | $13,400 \pm 13 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | $84,900 \pm 18 \%$ | $89,600 \pm 19 \%$ | $73,100 \pm 20 \%$ | $88,400 \pm 21 \%$ | 104,300 $\pm 14 \%$ | 95,900 $\pm 15 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 7.1 $\pm 23 \%$ | $7.4 \pm 21 \%$ | 8.3 $\pm 31 \%$ | 9.8 $\pm 33 \%$ | 7.9 $\pm 25 \%$ | 10.0 0 25\% |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 18,300 $\mathbf{1 2}^{12 \%}$ | 19,000 $12 \%$ | 14,900 $\mathbf{1 0}_{15 \%}$ | 21,700 $\mathbf{1 0}^{14 \%}$ |  | 17,600 $\mathbf{- 1 2 \%}$ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 880 | 1,137 | 1,097 | 1,602 | 1,119 | 1,460 |
| GooseTails | 438 | 566 | 300 | 429 | 433 | 604 |

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | New Mexico |  | North Dakota |  | Oklahoma |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 16,836 | 13,892 | 187,963 | 178,721 | 118,526 | 134,470 |
| Domestic Mallard | 0 | 0 | 0 | 0 | 162 | 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 | 1,999 | 5,461 | 60,668 | 65,052 | 84,037 | 96,304 |
| Wigeon | 3,536 | 6,826 | 13,903 | 13,792 | 33,032 | 32,175 |
| Green-winged Teal | 2,383 | 3,694 | 36,293 | 26,320 | 39,509 | 33,728 |
| Blue-winged/Cinnamon Teal | 846 | 3,614 | 30,695 | 58,271 | 14,411 | 13,092 |
| Northern Shoveler | 846 | 1,847 | 27,626 | 30,227 | 10,363 | 17,086 |
| Northern Pintail | 2,153 | 2,248 | 21,126 | 24,136 | 7,448 | 9,320 |
| Wood Duck | 231 | 642 | 2,347 | 2,988 | 972 | 3,107 |
| Redhead | 461 | 402 | 23,834 | 27,699 | 6,315 | 7,545 |
| Canvasback | 77 | 161 | 8,306 | 7,471 | 2,429 | 3,107 |
| Greater Scaup | 0 | 0 | 181 | 115 | 0 | 888 |
| Lesser Scaup | 154 | 0 | 27,987 | 13,677 | 4,210 | 3,994 |
| Ring-necked Duck | 0 | 241 | 9,209 | 6,206 | 16,840 | 13,314 |
| Goldeneyes | 77 | 161 | 2,167 | 805 | 1,781 | 222 |
| Bufflehead | 0 | 161 | 2,347 | 5,977 | 648 | 444 |
| Ruddy Duck | 0 | 241 | 2,167 | 2,184 | 0 | 444 |
| Long-tailed Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 181 | 0 | 0 | 0 |
| Hooded Merganser | 0 | 80 | 1,444 | 3,103 | 1,295 | 1,331 |
| Other Mergansers | 0 | 161 | 0 | 0 | 0 | 222 |
| Other Ducks | 231 | 562 | 903 | 0 | 162 | 0 |
| Total Duck Harvest | 29,800 $\pm 21 \%$ | 40,400 $\pm 68 \%$ | 459,300 $\pm 9 \%$ | 466,700 $\pm 9 \%$ | $342,100 \pm 29 \%$ | $370,800 \pm 18 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | $3,300 \pm 29 \%$ | 2,100 $\pm 42 \%$ | $31,400 \pm 6 \%$ | $32,100 \pm 8 \%$ | 13,900 $\pm 12 \%$ | 18,800 $\pm 12 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 17,000 $\pm 26 \%$ | 13,500 $\pm 46 \%$ | 160,200 $\pm 9 \%$ | 161,200 $\pm 8 \%$ | 112,200 $\pm 19 \%$ | 127,800 $\pm 17 \%$ |


| Seasonal Duck Harvest Per H | 9.0 $\pm 36 \%$ | $14.6 \pm 11 \%$ |  | $4.6 \pm 11 \%$ | . $\pm 31 \%$ | $8 \pm 21 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 9,338 | 6,279 | 147,215 | 168,521 | 40,827 | 75,625 |
| Snow Goose | 789 | 0 | 17,319 | 13,158 | 5,691 | 14,750 |
| Blue Goose | 0 | 0 | 10,542 | 15,378 | 247 | 2,682 |
| Ross' Goose | 1,052 | 0 | 6,024 | 951 | 742 | 3,486 |
| White-fronted Goose | 0 | 0 | 3,765 | 1,585 | 2,474 | 3,218 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |


| Total Goose Harvest | 11,200 $\pm 60 \%$ | 6,300 $\pm 97 \%$ | 184,900 $\pm 16 \%$ | 199,600 $\pm 15 \%$ | 50,000 $\pm 48 \%$ | 99,800 $\pm 41 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 2,900 $\pm 33 \%$ | 2,000 $\pm 47 \%$ | 25,200 $\pm$ \% | 24,800 $\pm 9 \%$ | 7,700 $\pm 16 \%$ | 9,900 $\pm 17 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 13,700 $\pm 64 \%$ | 8,400 $\pm 77 \%$ | 113,200 $\pm 9 \%$ | 117,500 $\pm 11 \%$ | 37,400 $\pm 26 \%$ | $49,400 \pm 24 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 3.9 | 3.1 $\pm 108 \%$ | 7.3 $\pm 18 \%$ | 8.0 $\pm 18 \%$ | $6.5 \pm 51 \%$ | 10.1 $\pm$ 44\% |
| Active Waterfowl Hunters ${ }^{\text {c }}$ |  |  |  |  |  |  |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 388 | 503 | 2,544 | 4,061 | 2,113 | 1,671 |
| GooseTails | 85 | 94 | 491 | 1,259 | 202 | 372 |

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | South Dakota |  | Texas |  | Wyoming |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 99,769 | 81,098 | 92,801 | 68,282 | 25,457 | 33,306 |
| Domestic Mallard | 0 | 0 | 283 | 460 | 0 | 0 |
| Black Duck | 0 | 133 | 0 | 0 | 0 | 0 |
| Mallard x Black Hybrid | 0 | 0 | 0 | 0 | 0 | 0 |
| Mottled Duck | 0 | 0 | 13,015 | 3,219 | 0 | 0 |
| Gadwall | 29,082 | 19,511 | 310,375 | 199,328 | 1,360 | 3,414 |
| Wigeon | 7,642 | 7,035 | 119,114 | 86,675 | 2,429 | 3,506 |
| Green-winged Teal | 19,105 | 15,928 | 271,330 | 173,119 | 3,206 | 2,583 |
| Blue-winged/Cinnamon Teal | 14,010 | 25,219 | 237,096 | 201,398 | 777 | 2,122 |
| Northern Shoveler | 10,189 | 15,795 | 95,065 | 74,490 | 777 | 92 |
| Northern Pintail | 11,463 | 10,087 | 101,855 | 64,374 | 583 | 369 |
| Wood Duck | 5,731 | 4,778 | 20,088 | 14,484 | 389 | 0 |
| Redhead | 5,307 | 7,566 | 93,367 | 75,179 | 874 | 646 |
| Canvasback | 637 | 1,062 | 12,449 | 18,163 | 0 | 0 |
| Greater Scaup | 212 | 133 | 1,415 | 1,839 | 0 | 0 |
| Lesser Scaup | 4,033 | 1,725 | 69,601 | 22,071 | 97 | 277 |
| Ring-necked Duck | 5,731 | 3,716 | 40,459 | 36,325 | 583 | 92 |
| Goldeneyes | 849 | 664 | 849 | 230 | 4,955 | 5,905 |
| Bufflehead | 4,458 | 5,575 | 5,376 | 1,150 | 97 | 277 |
| Ruddy Duck | 1,274 | 398 | 1,415 | 3,219 | 97 | 0 |
| Long-tailed Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 283 | 0 | 0 | 0 |
| Hooded Merganser | 849 | 531 | 2,546 | 2,299 | 0 | 92 |
| Other Mergansers | 0 | 133 | 283 | 0 | 0 | 185 |
| Other Ducks | 0 | 0 | 2,546 | 2,989 | 0 | 0 |
| Total Duck Harvest | 220,300 $\pm 21 \%$ | 201,100 $\pm 20 \%$ | 1,491,600 $\pm 46 \%$ | 1,049,300 $\pm 42 \%$ | 41,700 $\pm 22 \%$ | $52,900 \pm 16 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 14,800 $\pm 15 \%$ | 13,900 $\pm 17 \%$ | $74,700 \pm 21 \%$ | 46,400 $\pm 24 \%$ | $3,400 \pm 17 \%$ | 4,700 $\pm 13 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 85,300 $\pm 20 \%$ | $83,700 \pm 22 \%$ | $513,800 \pm 41 \%$ | $360,600 \pm 46 \%$ | 20,800 $\pm 21 \%$ | 26,600 $\pm 17 \%$ |
| Seasonal Duck Haryest Per Hunter ${ }^{\text {a }}$ | 14.9 $26 \%$ | 14.5さ26\% | 20.0 5 51\% | 22.6さ49\% | 12.2 $\pm 27 \%$ | 11.2 $\pm 21 \%$ |

Goose Species Composition

| Canada Goose | 100,670 | 135,490 | 56,486 | 36,917 | 29,022 | 28,457 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 23,375 | 10,313 | 63,356 | 54,290 | 330 | 0 |
| Blue Goose | 10,285 | 6,401 | 9,923 | 7,601 | 0 | 0 |
| Ross' Goose | 2,182 | 356 | 15,266 | 15,201 | 0 | 0 |
| White-fronted Goose | 4,363 | 1,422 | 63,356 | 34,745 | 0 | 0 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Goose Harvest | 140,900 $\pm 20 \%$ | 154,000 $\pm 32 \%$ | 208,400 $\pm 65 \%$ | 148,800 $\pm 36 \%$ | 29,400 $\pm 35 \%$ | 28,500 $\pm 18 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 14,700 $\pm 13 \%$ | $14,300 \pm 16 \%$ | $31,300 \pm 25 \%$ | $30,300 \pm 26 \%$ | $3,800 \pm 16 \%$ | 4,600 $\pm 14 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | $82,900 \pm 16 \%$ | 92,600 $\pm 31 \%$ | 83,900 $\pm 42 \%$ | 90,500 $\pm 38 \%$ | 19,200 $\pm 20 \%$ | 27,600 $\pm 26 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 9.6 $\pm 24 \%$ | 10.8 $\pm 36 \%$ | $6.7 \pm 70 \%$ | 4.9 $\pm 45 \%$ | 7.8 $\pm$ 39\% | 6.1 $\pm 23 \%$ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 21,300 $12 \%$ | 20,200 $14 \%$ | 83,500 $\pm 20 \%$ | 54,300 $23 \%$ | 5,700 $\pm 12 \%$ | 7,400 $9 \%$ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 1,038 | 1,515 | 5,272 | 4,564 | 429 | 573 |
| GooseTails | 452 | 433 | 273 | 137 | 356 | 270 |

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2012 and 2013 hunting seasons.

|  | Flyway Total |  |
| :--- | ---: | ---: |
| Duck Species Composition | 2012 | 2013 |
| Mallard | 757,292 | 731,127 |
| Domestic Mallard | 604 | 460 |
| Black Duck | 0 | 133 |
| Mallard x Black Hybrid | 0 | 0 |
| Mottled Duck | 13,015 | 3,219 |
| Gadwall | 536,378 | 455,029 |
| Wigeon | 200,791 | 179,141 |
| Green-winged Teal | 412,706 | 332,482 |
| Blue-winged/Cinnamon Teal | 343,714 | 399,602 |
| Northern Shoveler | 154,225 | 170,334 |
| Northern Pintail | 154,199 | 129,821 |
| Wood Duck | 32,444 | 32,575 |
| Redhead | 135,931 | 132,258 |
| Canvasback | 25,806 | 31,565 |
| Greater Scaup | 1,907 | 3,511 |
| Lesser Scaup | 109,244 | 45,336 |
| Ring-necked Duck | 79,332 | 68,082 |
| Goldeneyes | 13,505 | 11,291 |
| Bufflehead | 13,703 | 15,279 |
| Ruddy Duck | 5,311 | 7,332 |
| Long-tailed Duck | 0 | 0 |
| Eiders | 0 | 0 |
| Scoters | 463 | 0 |
| Hooded Merganser | 7,070 | 8,270 |
| Other Mergansers | 1,480 | 1,268 |
| Other Ducks | 3,842 | 3,660 |
| Total Duck Harvest | $3,003,000 \pm 23 \%$ | $2,761,800 \pm 17 \%$ |
| Total Active Duck Hunters |  |  |
| Total Duck Hunter Days Afield |  |  |
|  | 179,000 | 159,700 |
|  | $1,150,600 \pm 18 \%$ | $1,057,100 \pm 16 \%$ |


| Seasonal Duck Harvest Per Hunter ${ }^{\mathrm{a}}$ |  |  |
| :--- | ---: | ---: |
| Goose Species Composition | 647,651 | 770,924 |
| Canada Goose | 136,868 | 127,463 |
| Snow Goose | 33,513 | 40,909 |
| Blue Goose | 29,472 | 30,378 |
| Ross' Goose | 82,060 | 58,121 |
| White-fronted Goose | 0 | 0 |
| Brant | 0 | 0 |
| Other Geese | $929,600 \pm 16 \%$ | $1,027,800 \pm 10 \%$ |
| Total Goose Harvest | 124,900 | 129,200 |
| Total Active Goose Hunters ${ }^{\mathrm{b}}$ | $612,600 \pm 8 \%$ | $660,000 \pm 9 \%$ |


| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ |  |  |
| :---: | :---: | :---: |
|  |  |  |
| Sample Sizes |  |  |
| DuckWings | 14,880 | 17,086 |
| GooseTails | 3,030 | 4,164 |

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Arizona |  | California |  | Idaho |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 11,533 | 13,720 | 243,467 | 127,977 | 182,047 | 212,538 |
| Domestic Mallard | 0 | 148 | 0 | 607 | 153 | 874 |
| Black Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Mallard x Black Hybrid | 0 | 0 | 0 | 0 | 0 | 0 |
| Mottled Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Gadwall | 3,162 | 5,117 | 95,291 | 60,725 | 12,534 | 13,978 |
| Wigeon | 5,953 | 7,490 | 194,725 | 153,026 | 24,456 | 21,716 |
| Green-winged Teal | 9,053 | 15,351 | 371,171 | 258,838 | 12,075 | 16,973 |
| Blue-winged/Cinnamon Teal | 1,798 | 6,304 | 31,926 | 22,013 | 459 | 2,870 |
| Northern Shoveler | 6,139 | 7,713 | 291,478 | 197,355 | 7,490 | 5,366 |
| Northern Pintail | 1,736 | 3,041 | 201,061 | 130,558 | 7,948 | 7,114 |
| Wood Duck | 186 | 222 | 21,934 | 5,465 | 5,656 | 6,115 |
| Redhead | 806 | 964 | 14,623 | 7,742 | 3,210 | 2,496 |
| Canvasback | 1,798 | 222 | 23,396 | 30,059 | 611 | 749 |
| Greater Scaup | 124 | 74 | 12,673 | 1,974 | 917 | 624 |
| Lesser Scaup | 1,488 | 1,335 | 32,901 | 18,217 | 2,446 | 3,744 |
| Ring-necked Duck | 3,844 | 2,521 | 26,077 | 20,343 | 4,891 | 3,494 |
| Goldeneyes | 372 | 890 | 4,630 | 743 | 6,878 | 16,099 |
| Bufflehead | 868 | 964 | 13,160 | 12,752 | 4,586 | 3,994 |
| Ruddy Duck | 1,302 | 742 | 5,362 | 12,904 | 0 | 374 |
| Long-tailed Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 683 | 306 | 0 | 125 |
| Hooded Merganser | 62 | 0 | 1,706 | 304 | 764 | 749 |
| Other Mergansers | 248 | 148 | 731 | 455 | 611 | 374 |
| Other Ducks | 558 | 1,261 | 487 | 0 | 0 | 0 |
| Total Duck Harvest | 51,000 $\pm 23 \%$ | $68,200 \pm 43 \%$ | 1,587,500 $\pm 21 \%$ | 1,062,400 $\pm 14 \%$ | 277,700 $\pm 18 \%$ | $320,400 \pm 17 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 2,600 $\pm 7 \%$ | 4,700 $\pm 22 \%$ | $51,900 \pm 10 \%$ | $47,000 \pm 11 \%$ | 16,200 $\pm 14 \%$ | 19,400 $\pm 11 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 20,600 $\pm 13 \%$ | 23,200 $\pm 30 \%$ | $554,000 \pm 17 \%$ | $403,200 \pm 11 \%$ | 120,700 $\pm 22 \%$ | 127,200 $\pm 13 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | 19.8 $\pm 24 \%$ | 14.4 $\pm 48 \%$ | 30.6 $\pm 23 \%$ | 22.6 $\pm 18 \%$ | 17.1 $\pm 23 \%$ | 16.5 $\pm 20 \%$ |

Goose Species Composition

| Canada Goose | 1,400 | 2,087 | 47,877 | 44,071 | 72,557 | 62,595 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 0 | 373 | 45,060 | 38,747 | 648 | 1,252 |
| Blue Goose | 0 | 0 | 201 | 0 | 0 | 0 |
| Ross' Goose | 233 | 149 | 14,886 | 13,310 | 324 | 0 |
| White-fronted Goose | 0 | 75 | 41,842 | 65,071 | 324 | 6,260 |
| Brant | 0 | 0 | 1,093 | 952 | 0 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 0 | 209 |
| Total Goose Harvest | 1,600 $\pm 35 \%$ | 2,700 $\pm 62 \%$ | 151,000 $\pm 18 \%$ | 162,200 $\pm 19 \%$ | 73,900 $\pm 24 \%$ | 70,300 $\pm 15 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | $500 \pm 19 \%$ | 1,600 $\pm 41 \%$ | 32,100 $\pm 12 \%$ | 29,800 $\pm 13 \%$ | 12,700 $\pm 14 \%$ | 15,600 $\pm 12 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 3,300 $\pm 36 \%$ | 9,500 $\pm 56 \%$ | 263,300 $\pm 19 \%$ | 201,800 $\pm 16 \%$ | 85,600 $\pm 24 \%$ | 81,300 $\pm 16 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | $3.2 \pm 40 \%$ | 1.6 $\pm 74 \%$ | 4.7 $\pm 21 \%$ | 5.4 $\pm 23 \%$ | 5.8さ28\% | 4.5 |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 2,600 $\mathbf{7}_{-7 \%}$ | 4,900 $-21 \%$ | 54,700 $\pm 10 \%$ | 49,200 | 21,100 $\pm 12 \%$ | 23,100 |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 823 | 920 | 6,513 | 7,039 | 1,817 | 2,567 |
| GooseTails | 21 | 36 | 826 | 621 | 228 | 337 |

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Montana |  | Nevada |  | Oregon |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 70,562 | 79,346 | 11,828 | 10,499 | 132,638 | 103,953 |
| Domestic Mallard | 0 | 0 | 0 | 0 | 90 | 294 |
| 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 | 7,280 | 9,723 | 6,512 | 4,584 | 15,446 | 8,902 |
| Wigeon | 7,700 | 8,763 | 3,123 | 2,505 | 59,449 | 44,141 |
| Green-winged Teal | 8,260 | 6,602 | 9,370 | 7,621 | 48,852 | 34,651 |
| Blue-winged/Cinnamon Teal | 4,200 | 7,923 | 399 | 1,119 | 359 | 294 |
| Northern Shoveler | 2,100 | 5,762 | 11,230 | 7,035 | 20,026 | 18,466 |
| Northern Pintail | 3,920 | 2,641 | 3,256 | 2,238 | 59,449 | 37,299 |
| Wood Duck | 280 | 1,320 | 598 | 266 | 6,286 | 9,196 |
| Redhead | 3,220 | 3,241 | 1,130 | 640 | 629 | 0 |
| Canvasback | 1,260 | 720 | 665 | 320 | 1,796 | 2,060 |
| Greater Scaup | 0 | 0 | 66 | 53 | 11,854 | 1,545 |
| Lesser Scaup | 3,500 | 2,521 | 465 | 107 | 8,262 | 3,973 |
| Ring-necked Duck | 2,100 | 1,200 | 1,395 | 693 | 8,172 | 6,033 |
| Goldeneyes | 4,200 | 3,601 | 133 | 213 | 1,257 | 155 |
| Bufflehead | 140 | 1,080 | 266 | 213 | 10,866 | 3,531 |
| Ruddy Duck | 980 | 0 | 199 | 160 | 359 | 368 |
| Long-tailed Duck | 0 | 0 | 0 | 0 | 0 | 0 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 0 | 133 | 0 | 221 | 10 |
| Hooded Merganser | 280 | 120 | 0 | 53 | 2,155 | 1,030 |
| Other Mergansers | 140 | 120 | 199 | 0 | 1,078 | 515 |
| Other Ducks | 0 | 0 | 0 | 0 | 0 | 74 |
| Total Duck Harvest | 120,100 $\pm 18 \%$ | 134,700 $\pm 32 \%$ | 51,000 $\pm 18 \%$ | 38,300 $\pm 22 \%$ | 389,200 $\pm 27 \%$ | 276,500 $\pm 26 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 13,600 $\pm 15 \%$ | 10,600 $\pm 20 \%$ | $3,900 \pm 18 \%$ | 3,600 $\pm 22 \%$ | 18,500 $\pm 11 \%$ | $13,800 \pm 13 \%$ |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 69,800 $\pm 20 \%$ | 63,600 $\pm 28 \%$ | 22,200 $\pm 17 \%$ | 18,600 $\pm 19 \%$ | 147,300 $\pm 18 \%$ | 117,100 $\pm 23 \%$ |
| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ | 8.9 $\pm 23 \%$ | $12.6 \pm 37 \%$ | $13.2 \pm 25 \%$ | 10.6 $\pm 31 \%$ | 21.0 $\pm 29 \%$ | 20.1 $\pm 29 \%$ |

Goose Species Composition

| Canada Goose | 71,733 | 42,099 | 5,276 | 6,177 | 48,401 | 48,653 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snow Goose | 7,313 | 555 | 211 | 0 | 4,487 | 2,409 |
| Blue Goose | 522 | 0 | 0 | 0 | 0 | 0 |
| Ross' Goose | 174 | 555 | 106 | 0 | 0 | 602 |
| White-fronted Goose | 0 | 222 | 106 | 0 | 1,767 | 2,890 |
| Brant | 0 | 0 | 0 | 0 | 277 | 0 |
| Other Geese | 0 | 0 | 0 | 0 | 136 | 0 |
| Total Goose Harvest | 79,700 $\pm 22 \%$ | $43,400 \pm 40 \%$ | 5,700 $\pm 26 \%$ | 6,200 $\pm 42 \%$ | $55,100 \pm 20 \%$ | $54,600 \pm 24 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 14,100 $\pm 14 \%$ | 6,600 $\pm 28 \%$ | 2,200 $\pm 20 \%$ | 1,900 $\pm 27 \%$ | 8,800 $\pm 13 \%$ | 7,500 $\pm 16 \%$ |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 70,700 $21 \%$ | 30,900 $\pm 32 \%$ | 12,500 $\pm 30 \%$ | 10,100 $\pm 42 \%$ | $53,700 \pm 23 \%$ | 48,800 $\pm 23 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 5.7 $\pm 26 \%$ | $6.6 \pm 49 \%$ | $2.5 \pm 33 \%$ | $3.3 \pm 50 \%$ | $6.3 \pm 24 \%$ | 7.3 $\pm 29 \%$ |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 19,400 $\pm 12 \%$ | 12,400 $\pm 18 \%$ | 4,700 $\pm 16 \%$ | 3,800 $\pm 22 \%$ | 20,400 $\pm 10 \%$ | 15,700 $\pm 13 \%$ |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 858 | 1,122 | 767 | 719 | 4,342 | 3,773 |
| GooseTails | 458 | 391 | 54 | 52 | 408 | 454 |

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Utah |  | Washington |  | Flyway Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 74,489 | 52,713 | 226,227 | 123,569 | 952,792 | 724,316 |
| Domestic Mallard | 0 | 402 | 0 | 114 | 243 | 2,439 |
| 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 | 42,642 | 19,479 | 11,391 | 7,182 | 194,258 | 129,689 |
| Wigeon | 30,249 | 17,471 | 77,070 | 62,240 | 402,725 | 317,352 |
| Green-winged Teal | 38,111 | 38,958 | 55,355 | 30,208 | 552,248 | 409,203 |
| Blue-winged/Cinnamon Teal | 3,465 | 5,824 | 356 | 456 | 42,961 | 46,803 |
| Northern Shoveler | 18,656 | 11,748 | 14,951 | 9,575 | 372,069 | 263,020 |
| Northern Pintail | 35,046 | 15,161 | 36,666 | 24,395 | 349,083 | 222,447 |
| Wood Duck | 0 | 100 | 2,314 | 4,218 | 37,254 | 26,904 |
| Redhead | 5,863 | 2,510 | 1,780 | 2,850 | 31,260 | 20,443 |
| Canvasback | 3,331 | 1,908 | 2,492 | 2,622 | 35,350 | 38,659 |
| Greater Scaup | 400 | 100 | 9,434 | 1,710 | 35,468 | 6,080 |
| Lesser Scaup | 4,264 | 4,418 | 10,857 | 7,524 | 64,183 | 41,838 |
| Ring-necked Duck | 11,593 | 3,113 | 9,256 | 7,638 | 67,329 | 45,035 |
| Goldeneyes | 933 | 5,322 | 8,544 | 1,104 | 26,948 | 28,127 |
| Bufflehead | 2,265 | 2,309 | 16,909 | 8,549 | 49,060 | 33,394 |
| Ruddy Duck | 2,532 | 1,004 | 0 | 114 | 10,734 | 15,666 |
| Long-tailed Duck | 0 | 0 | 356 | 23 | 356 | 23 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 |
| Scoters | 0 | 100 | 3,382 | 437 | 4,418 | 978 |
| Hooded Merganser | 400 | 402 | 2,314 | 798 | 7,681 | 3,455 |
| Other Mergansers | 133 | 1,104 | 1,246 | 798 | 4,387 | 3,516 |
| Other Ducks | 133 | 201 | 0 | 0 | 1,179 | 1,535 |
| Total Duck Harvest | 274,500 $\pm 21 \%$ | 184,300 $\pm 20 \%$ | 490,900 $\pm 28 \%$ | 296,100 $\pm 17 \%$ | $3,242,000 \pm 12 \%$ | 2,380,900 $\pm 8 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 17,500 $\pm 12 \%$ | 14,300 $\pm 16 \%$ | 23,800 $\pm 11 \%$ | 17,200 $\pm 13 \%$ | 147,900 | 130,700 |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | $129,700 \pm 34 \%$ | 90,600 $\pm 23 \%$ | 193,800 $\pm 23 \%$ | 127,100 $\pm 15 \%$ | 1,258,000 $\pm 10 \%$ | 970,800 $\pm 7 \%$ |


| Seasonal Duck Haryest Per Hunter ${ }^{\text {a }}$ | 15.7 $\pm 24 \%$ | 20.7 $\pm 30 \%$ |  | $17.1 \pm 21 \%$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Goose Species Composition |  |  |  |  |  |  |
| Canada Goose | 23,296 | 17,618 | 61,491 | 48,301 | 332,031 | 271,601 |
| Snow Goose | 210 | 647 | 11,562 | 4,383 | 69,491 | 48,365 |
| Blue Goose | 0 | 0 | 0 | 0 | 723 | 0 |
| Ross' Goose | 0 | 485 | 350 | 1,031 | 16,073 | 16,133 |
| White-fronted Goose | 0 | 0 | 876 | 516 | 44,915 | 75,033 |
| Brant | 0 | 0 | 295 | 767 | 1,664 | 1,719 |
| Other Geese | 0 | 0 | 0 | 0 | 136 | 209 |
| Total Goose Harvest | 23,500 $\pm 20 \%$ | 18,700 $\pm 36 \%$ | 74,600 $\pm 21 \%$ | $55,000 \pm 23 \%$ | $465,000 \pm 9 \%$ | $413,100 \pm 10 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | 10,300 $\pm 14 \%$ | 7,800 $\pm 22 \%$ | 13,500 $\pm 12 \%$ | 10,200 $\pm 15 \%$ | 94,300 | 80,900 |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 66,300 $\pm 30 \%$ | 44,200 $\pm 39 \%$ | 61,500 $\pm 16 \%$ | 56,000 $\pm 20 \%$ | 616,900 $\pm 10 \%$ | 482,800 $\pm 9 \%$ |


| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Active Waterfowl Hunters ${ }^{\text {c }}$ | 18,700 $11 \%$ - - $14,900 \pm 16 \%$ |  |  |  | 167,100 | 142,700 |
| Sample Sizes |  |  |  |  |  |  |
| DuckWings | 2,060 | 1,836 | 2,758 | 2,652 | 19,938 | 20,628 |
| GooseTails | 112 | 116 | 432 | 635 | 2,539 | 2,642 |

Table 1E. Preliminary estimates of waterfowl harvest and hunter activity in the Alaska and the United States during the 2012 and 2013 hunting seasons.

| Duck Species Composition | Alaska |  | United States Total |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 |
| Mallard | 17,148 | 17,125 | 3,935,272 | 3,637,597 |
| Domestic Mallard | 0 | 69 | 7,338 | 7,452 |
| Black Duck | 0 | 0 | 94,559 | 100,187 |
| Mallard x Black Hybrid | 0 | 0 | 7,853 | 12,597 |
| Mottled Duck | 0 | 0 | 61,686 | 49,727 |
| Gadwall | 543 | 480 | 2,020,732 | 1,674,771 |
| Wigeon | 11,504 | 11,097 | 775,990 | 638,214 |
| Green-winged Teal | 7,489 | 8,152 | 2,029,587 | 1,711,307 |
| Blue-winged/Cinnamon Teal | 109 | 343 | 1,427,447 | 1,465,318 |
| Northern Shoveler | 2,388 | 5,275 | 952,841 | 821,859 |
| Northern Pintail | 10,962 | 9,727 | 683,446 | 538,467 |
| Wood Duck | 0 | 0 | 1,295,075 | 1,160,864 |
| Redhead | 0 | 0 | 285,764 | 310,201 |
| Canvasback | 109 | 274 | 117,249 | 159,712 |
| Greater Scaup | 326 | 343 | 97,900 | 82,224 |
| Lesser Scaup | 217 | 822 | 634,281 | 246,285 |
| Ring-necked Duck | 543 | 480 | 651,443 | 497,997 |
| Goldeneyes | 3,582 | 2,946 | 82,777 | 86,645 |
| Bufflehead | 977 | 1,987 | 246,730 | 223,984 |
| Ruddy Duck | 0 | 0 | 50,885 | 46,285 |
| Long-tailed Duck | 0 | 0 | 28,525 | 29,224 |
| Eiders | 0 | 0 | 11,725 | 7,778 |
| Scoters | 5,023 | 4,602 | 52,312 | 47,618 |
| Hooded Merganser | 0 | 0 | 99,837 | 98,552 |
| Other Mergansers | 2,870 | 1,255 | 35,113 | 35,123 |
| Other Ducks | 718 | 1,742 | 18,114 | 26,438 |
| Total Duck Harvest | 64,500 $\pm 13 \%$ | 66,700 $\pm 16 \%$ | 15,704,500 $\pm 6 \%$ | 13,716,400 $\pm 6 \%$ |
| Total Active Duck Hunters ${ }^{\text {a }}$ | 4,500 $\pm 8 \%$ | 4,700 $\pm 9 \%$ | 995,700 | 881,400 |
| Total Duck Hunter Days Afield ${ }^{\text {a }}$ | 25,600 $\pm 13 \%$ | 25,800 $\pm 13 \%$ | 7,043,600 $\pm 4 \%$ | 6,196,900 $\pm 5 \%$ |


| Seasonal Duck Harvest Per Hunter ${ }^{\text {a }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Goose Species Composition |  |  |  |  |
| Canada Goose | 9,126 | 5,142 | 2,510,574 | 2,656,066 |
| Snow Goose | 0 | 0 | 304,742 | 291,171 |
| Blue Goose | 0 | 0 | 80,313 | 89,404 |
| Ross' Goose | 0 | 0 | 54,265 | 52,769 |
| White-fronted Goose | 281 | 621 | 210,501 | 256,369 |
| Brant | 1,722 | 725 | 30,936 | 14,366 |
| Other Geese | 0 | 0 | 422 | 279 |
| Total Goose Harvest | 11,100 $\pm 19 \%$ | 6,500 $\pm 27 \%$ | 3,191,800 $\pm 6 \%$ | 3,360,400 $\pm 6 \%$ |
| Total Active Goose Hunters ${ }^{\text {b }}$ | $2,100 \pm 12 \%$ | 1,800 $\pm 16 \%$ | 593,800 | 561,900 |
| Total Goose Hunter Days Afield ${ }^{\text {b }}$ | 12,200 $\pm 17 \%$ | 9,500 $\pm 25 \%$ | $3,458,000 \pm 4 \%$ | 3,301,400 $\pm 5 \%$ |
| Seasonal Goose Harvest Per Hunter ${ }^{\text {b }}$ | 4.5 $\pm 22 \%$ | 3.2 $\pm 31 \%$ |  |  |



Sample Sizes

| DuckWings | 527 | 882 | 69,105 | 74,693 |
| :--- | ---: | ---: | ---: | ---: |
| GooseTails | 106 | 93 | 13,976 | 16,422 |

 Island, Virginia, California, Oregon, and Alaska. (Refer to Table 3.)
 Washington, and Alaska. (Refer to Table 4.)

[^0]Table 2. Flyway-specific point estimates of duck and goose harvest in Colorado, Montana, New Mexico, and Wyoming during the 2012 and 2013 hunting seasons.

|  | 2012 |  |  | 2013 |  |
| :--- | ---: | ---: | :--- | ---: | ---: |
|  | Central Flyway | Pacific Flyway |  | Central Flyway | Pacific Flyway |
| Duck Harvest |  |  |  |  |  |
| $\quad$ Colorado | 77,200 | 10,700 |  | 100,900 | 23,400 |
| Montana | 40,000 | 80,100 |  | 54,400 | 80,300 |
| New Mexico | 26,100 | 3,700 |  | 34,600 | 5,800 |
| Wyoming | 33,300 | 8,400 |  | 46,200 | 6,600 |
| Goose Harvest |  |  |  |  |  |
| Colorado | 87,400 | 10,800 |  | 97,100 | 8,400 |
| Montana | 46,300 | 33,400 |  | 28,800 | 14,700 |
| New Mexico | 5,300 | 5,900 |  | 2,400 | 3,900 |
| Wyoming | 28,500 | 800 |  | 26,700 | 1,800 |

Table 3. Preliminary estimates of sea duck harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2012 and 2013 hunting seasons. ${ }^{1}$

|  | Sea Duck Harvest ${ }^{2}$ |  | Active Sea Duck Hunters ${ }^{3}$ |  | Sea Duck Hunter Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State / Flyway | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Connecticut | $3,500 \pm 60 \%$ | $4,500 \pm 60 \%$ | $500 \pm 39 \%$ | $600 \pm 45 \%$ | 2,000 $\pm 50 \%$ | 2,100 $\pm 62 \%$ | $6.7 \pm . \%$ | $7.4 \pm 75 \%$ |
| Delaware | 1,000 $\pm 53 \%$ | 1,100 $\pm 74 \%$ | $200 \pm 59 \%$ | $300 \pm 58 \%$ | $500 \pm 50 \%$ | $800 \pm 81 \%$ | $4.2 \pm 79 \%$ | $4.4 \pm 94 \%$ |
| Maine | $8,500 \pm 53 \%$ | $5,000 \pm 67 \%$ | 1,100 $\pm 34 \%$ | $1,000 \pm 47 \%$ | $4,700 \pm 55 \%$ | $3,500 \pm 62 \%$ | $7.7 \pm 63 \%$ | $4.9 \pm 82 \%$ |
| Maryland | 10,900 $\pm 40 \%$ | $14,100 \pm 42 \%$ | $2,800 \pm 30 \%$ | $2,700 \pm 24 \%$ | $5,800 \pm 44 \%$ | $7,100 \pm 36 \%$ | $3.9 \pm 50 \%$ | $5.2 \pm 48 \%$ |
| Massachusetts | 6,500 $\pm 34 \%$ | $3,800 \pm 47 \%$ | $900 \pm 28 \%$ | $700 \pm 43 \%$ | $3,000 \pm 31 \%$ | 1,700 $\pm 46 \%$ | $7.6 \pm 43 \%$ | $5.6 \pm 64 \%$ |
| New Hampshire | 1,600 $\pm 63 \%$ | 1,700 $\pm 89 \%$ | $200 \pm 49 \%$ | $200 \pm 69 \%$ | $700 \pm 52 \%$ | $800 \pm 74 \%$ | $7.1 \pm 80 \%$ | $9.0 \pm 112 \%$ |
| New Jersey | 7,700 $\pm 38 \%$ | $5,300 \pm 44 \%$ | 1,000 $\pm 28 \%$ | $1,100 \pm 32 \%$ | $3,200 \pm 38 \%$ | $3,300 \pm 39 \%$ | $7.4 \pm 47 \%$ | $4.7 \pm 54 \%$ |
| New York | $16,100 \pm 61 \%$ | $13,600 \pm 48 \%$ | 1,600 $\pm 32 \%$ | 2,000 $\pm 37 \%$ | $7,800 \pm 56 \%$ | $8,600 \pm 41 \%$ | $10.1 \pm 69 \%$ | $6.7 \pm 61 \%$ |
| Rhode Island | $600 \pm 40 \%$ | $800 \pm 50 \%$ | $200 \pm 35 \%$ | $200 \pm 37 \%$ | $500 \pm 49 \%$ | 1,100 $\pm 63 \%$ | $3.3 \pm 53 \%$ | $4.0 \pm 62 \%$ |
| Virginia | $6,200 \pm 66 \%$ | 2,900 $\pm 67 \%$ | 1,200 $\pm 48 \%$ | 1,000 $\pm 58 \%$ | $3,500 \pm 47 \%$ | 2,100 $\pm 55 \%$ | $5.0 \pm 81 \%$ | $3.0 \pm 89 \%$ |
| Atlantic Flyway Total | $62,500 \pm 21 \%$ | $53,000 \pm 20 \%$ | 9,800 | 9,800 | $31,900 \pm 20 \%$ | $31,200 \pm 18 \%$ |  |  |
| California | $700 \pm 87 \%$ | 1,000 $\pm 73 \%$ | $100 \pm 36 \%$ | $100 \pm 36 \%$ | $700 \pm 50 \%$ | $600 \pm 54 \%$ | $5.7 \pm 94 \%$ | $8.3 \pm 81 \%$ |
| Oregon | $200 \pm 145 \%$ | $200 \pm 98 \%$ | $<50 \pm 62 \%$ | $<50 \pm 70 \%$ | $100 \pm 84 \%$ | $100 \pm 82 \%$ | $4.6 \pm 157 \%$ | $3.7 \pm 120 \%$ |
| Washington ${ }^{4}$ | - | 1,600 $\pm 87 \%$ | - | $100 \pm 61 \%$ | - | 1,200 $\pm 108 \%$ | - | $14.0 \pm 106 \%$ |
| Pacific Flyway | $900 \pm 74 \%$ | $2,800 \pm 56 \%$ | 200 | 300 | $800 \pm 43 \%$ | 1,900 $\pm 70 \%$ |  |  |
| Alaska | $8,600 \pm 28 \%$ | $7,500 \pm 33 \%$ | 1,200 $\pm 19 \%$ | 1,100 $\pm 27 \%$ | $5,700 \pm 22 \%$ | $4,400 \pm 34 \%$ | $7.1 \pm 34 \%$ | $6.8 \pm 43 \%$ |
| U.S. Total | $72,000 \pm 18 \%$ | $63,300 \pm 17 \%$ | 11,200 | 11,200 | $38,400 \pm 17 \%$ | $37,600 \pm 16 \%$ |  |  |

${ }^{1}$ Variance estimates presented as $95 \%$ confidence interval as 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.
${ }^{4}$ Estimates for 2012 not available.
Table 4. Preliminary estimates of brant harvest and hunter activity along the Atlantic and Pacific coasts during the 2012 and 2013 hunting seasons. ${ }^{1}$

| State / Flyway | Brant Harvest |  | Active Brant Hunters ${ }^{2}$ |  | Brant Hunter Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Connecticut | $300 \pm 136 \%$ | 0 | $200 \pm 111 \%$ | $100 \pm 195 \%$ | $200 \pm 111 \%$ | $900 \pm 195 \%$ | $1.3 \pm 176 \%$ | 0 |
| Delaware | $500 \pm 89 \%$ | $200 \pm 117 \%$ | $200 \pm 64 \%$ | $100 \pm 82 \%$ | $900 \pm 114 \%$ | $400 \pm 97 \%$ | $2.6 \pm 110 \%$ | $3.3 \pm 143 \%$ |
| Maryland | 1,000 $\pm 114 \%$ | $100 \pm 140 \%$ | $500 \pm 79 \%$ | $100 \pm 154 \%$ | 1,400 $\pm 119 \%$ | $100 \pm 154 \%$ | $2.2 \pm 139 \%$ | $1.2 \pm 208 \%$ |
| Massachusetts | $900 \pm 42 \%$ | $100 \pm 116 \%$ | $400 \pm 42 \%$ | $100 \pm 103 \%$ | 1,100 $\pm 36 \%$ | $300 \pm 123 \%$ | $2.4 \pm 59 \%$ | $1.3 \pm 155 \%$ |
| New Hampshire | 0 | 0 | $<50 \pm 171 \%$ | $100 \pm 136 \%$ | $100 \pm 188 \%$ | $300 \pm 149 \%$ | 0 | 0 |
| New Jersey | $8,800 \pm 23 \%$ | $4,600 \pm 100 \%$ | 2,000 $\pm 18 \%$ | 1,100 $\pm 31 \%$ | $6,900 \pm 23 \%$ | $4,400 \pm 57 \%$ | $4.5 \pm 29 \%$ | $4.3 \pm 104 \%$ |
| New York | 8,900 $\pm 36 \%$ | $4,200 \pm 44 \%$ | 1,900 $\pm 32 \%$ | 1,500 $\pm 42 \%$ | 7,600 $\pm 34 \%$ | $4,900 \pm 42 \%$ | $4.8 \pm 48 \%$ | $2.8 \pm 61 \%$ |
| North Carolina | $3,800 \pm 102 \%$ | $900 \pm 142 \%$ | $700 \pm 97 \%$ | $600 \pm 116 \%$ | $3,400 \pm 108 \%$ | 2,600 $\pm 125 \%$ | $5.3 \pm 141 \%$ | $1.5 \pm 183 \%$ |
| Rhode Island | $400 \pm 46 \%$ | $200 \pm 61 \%$ | $100 \pm 56 \%$ | $100 \pm 43 \%$ | $600 \pm 33 \%$ | $500 \pm 55 \%$ | $2.7 \pm 72 \%$ | $3.5 \pm 74 \%$ |
| Virginia | $1,900 \pm 35 \%$ | 1,200 $\pm 108 \%$ | $800 \pm 40 \%$ | $700 \pm 70 \%$ | 2,100 $\pm 39 \%$ | 1,200 $\pm 71 \%$ | $2.4 \pm 53 \%$ | $1.8 \pm 129 \%$ |
| Atlantic Flyway Total | $26,400 \pm 21 \%$ | $11,600 \pm 46 \%$ | 6,700 | 4,300 | 24,200 $\pm 22 \%$ | 15,500 $\pm 33 \%$ |  |  |
| California | $900 \pm 31 \%$ | 1,000 $\pm 48 \%$ | $300 \pm 82 \%$ | $300 \pm 92 \%$ | 2,300 $\pm 138 \%$ | 1,000 $\pm 43 \%$ | $2.7 \pm 88 \%$ | $2.8 \pm 103 \%$ |
| Oregon | $<50 \pm 196 \%$ | 0 | $<50 \pm 77 \%$ | $<50 \pm 96 \%$ | $<50 \pm 81 \%$ | $<50 \pm 116 \%$ | $0.3 \pm 211 \%$ | 0 |
| Washington | $300 \pm 79 \%$ | $800 \pm 85 \%$ | $100 \pm 43 \%$ | $400 \pm 76 \%$ | $300 \pm 50 \%$ | 1,200 $\pm 89 \%$ | $2.3 \pm 90 \%$ | $1.8 \pm 114 \%$ |
| Pacific Flyway Total | $1,200 \pm 30 \%$ | 1,700 $\pm 46 \%$ | 500 | 800 | 2,600 $\pm 121 \%$ | $2,300 \pm 51 \%$ |  |  |
| Alaska | $1,700 \pm 45 \%$ | $700 \pm 55 \%$ | $400 \pm 28 \%$ | $200 \pm 44 \%$ | 2,500 $\pm 43 \%$ | 1,000 $\pm 60 \%$ | $4.7 \pm 53 \%$ | $3.6 \pm 70 \%$ |
| U.S. Total | 29,300 $\pm 19 \%$ | $14,000 \pm 38 \%$ | 7,500 | 5,300 | 29,300 $\pm 21 \%$ | 18,800 $\pm 28 \%$ |  |  |

${ }^{1}$ Variance estimates presented as $95 \%$ confidence interval as 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 2012 and 2013 hunting seasons.

| State | Harvest |  |  |  |  |  |  |  |  |  | Number of wings received |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Green-winged Teal |  | Blue-winged Teal |  | Wood ducks |  | Other ducks |  | Total duck harvest |  |  |  |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| September Teal Seasons |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware | 3,205 | 449 | 320 | 150 | 0 | 0 | 0 | 0 | 3,525 | 598 | 22 | 8 |
| Georgia | 0 | 0 | 7,052 | 8,586 | 0 | 0 | 0 | 0 | 7,052 | 8,586 | 20 | 59 |
| Maryland | 0 | 132 | 0 | 396 | 0 | 0 | 0 | 0 | 0 | 528 | 0 | 4 |
| North Carolina | 258 | 850 | 2,064 | 638 | 0 | 0 | 774 | 638 | 3,095 | 2,125 | 12 | 10 |
| South Carolina | 0 | 0 | 6,066 | 1,742 | 0 | 0 | 0 | 0 | 6,066 | 1,742 | 23 | 11 |
| Virginia | 1,271 | 0 | 794 | 324 | 0 | 0 | 0 | 216 | 2,066 | 541 | 13 | 5 |
| Subtotal | 4,734 | 1,431 | 16,297 | 11,835 | 0 | 0 | 774 | 854 | 21,804 | 14,119 | 90 | 97 |
| Alabama | 0 | 212 | 26,954 | 12,927 | 0 | 212 | 0 | 212 | 26,954 | 13,563 | 40 | 64 |
| Arkansas | 460 | 0 | 23,923 | 4,673 | 0 | 0 | 0 | 0 | 24,383 | 4,673 | 53 | 18 |
| Illinois | 1,889 | 0 | 22,289 | 11,419 | 0 | 0 | 0 | 0 | 24,178 | 11,419 | 64 | 24 |
| Indiana | 217 | 549 | 4,551 | 2,197 | 0 | 0 | 0 | 0 | 4,768 | 2,746 | 22 | 20 |
| Louisiana | 27,655 | 4,649 | 390,923 | 323,077 | 469 | 0 | 469 | 0 | 419,515 | 327,726 | 895 | 846 |
| Mississippi | 0 | 0 | 16,033 | 9,326 | 422 | 0 | 0 | 0 | 16,454 | 9,326 | 39 | 38 |
| Missouri | 2,758 | 1,448 | 49,881 | 38,229 | 0 | 0 | 0 | 0 | 52,640 | 39,677 | 229 | 137 |
| Ohio | 1,305 | 5,870 | 3,916 | 5,525 | 0 | 0 | 0 | 0 | 5,221 | 11,395 | 28 | 33 |
| Subtotal | 34,285 | 12,728 | 538,470 | 407,373 | 891 | 212 | 469 | 212 | 574,114 | 420,525 | 1,370 | 1,180 |
| Colorado | 1,199 | 1,312 | 4,595 | 4,156 | 0 | 0 | 0 | 0 | 5,794 | 5,468 | 58 | 50 |
| Kansas | 4,298 | 2,323 | 19,420 | 28,213 | 0 | 0 | 0 | 0 | 23,718 | 30,537 | 149 | 184 |
| Nebraska | 5,280 | 1,174 | 14,868 | 11,606 | 0 | 0 | 0 | 130 | 20,149 | 12,910 | 145 | 99 |
| New Mexico | 384 | 402 | 769 | 2,891 | 0 | 0 | 0 | 0 | 1,153 | 3,292 | 15 | 41 |
| Oklahoma | 3,562 | 1,553 | 14,087 | 12,426 | 0 | 0 | 0 | 0 | 17,649 | 13,980 | 109 | 63 |
| Texas | 23,483 | 4,598 | 195,222 | 119,781 | 0 | 0 | 283 | 0 | 218,988 | 124,379 | 774 | 541 |
| Subtotal | 38,207 | 11,362 | 248,961 | 179,073 | 0 | 0 | 283 | 130 | 287,451 | 190,566 | 1,250 | 978 |
| Total | 77,225 | 25,521 | 803,728 | 598,282 | 891 | 212 | 1,525 | 1,196 | 883,370 | 625,211 | 2,710 | 2,255 |
| September Teal/Wood Duck Seasons |  |  |  |  |  |  |  |  |  |  |  |  |
| Florida | 104 | 0 | 8,774 | 8,533 | 627 | 905 | 0 | 0 | 9,505 | 9,438 | 91 | 73 |
| Kentucky | 0 | 0 | 313 | 696 | 1,880 | 5,565 | 0 | 0 | 2,193 | 6,261 | 14 | 9 |
| Tennessee | 0 | 0 | 15,891 | 0 | 12,360 | 8,364 | 0 | 0 | 28,251 | 8,364 | 32 | 8 |
| Total | 104 | 0 | 24,979 | 9,229 | 14,867 | 14,834 | 0 | 0 | 39,950 | 24,063 | 137 | 90 |
| U.S. Total | 77,330 | 25,521 | 828,707 | 607,510 | 15,757 | 15,046 | 1,525 | 1,196 | 923,319 | 649,273 | 2,847 | 2,345 |

Table 6. Preliminary estimates of the number of Canada geese harvested during the special September, regular, and special late seasons during the 2012 and 2013 hunting seasons.

| State / Flyway | September |  | Regular |  | Late |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Connecticut | 1,400 | 1,200 | 6,500 | 7,500 | 0 | 0 | 7,900 | 8,600 |
| Delaware | 2,800 | 900 | 11,800 | 17,000 | --- | --- | 14,600 | 17,900 |
| Florida | 0 | 0 | 500 | 1,700 | --- | --- | 500 | 1,700 |
| Georgia | 6,600 | 4,700 | 8,800 | 27,400 | --- | --- | 15,400 | 32,200 |
| Maine | 3,400 | 3,900 | 6,100 | 4,900 | --- | --- | 9,500 | 8,800 |
| Maryland | 10,700 | 5,800 | 165,000 | 146,700 | --- | --- | 175,700 | 152,500 |
| Massachusetts | 1,600 | 2,100 | 7,800 | 3,800 | 1,500 | 1,300 | 10,800 | 7,100 |
| New Hampshire | 2,700 | 1,500 | 2,200 | 4,500 | --- | --- | 4,800 | 6,000 |
| New Jersey | 8,600 | 6,000 | 23,300 | 42,300 | 4,100 | 3,400 | 36,000 | 51,700 |
| New York | 58,200 | 69,400 | 77,700 | 64,900 | 0 | 2,000 | 135,900 | 136,200 |
| North Carolina | 37,700 | 7,200 | 36,000 | 48,700 | --- | --- | 73,700 | 55,900 |
| Pennsylvania | 27,400 | 33,200 | 76,600 | 70,700 | --- | --- | 104,000 | 103,900 |
| Rhode Island | 0 | 100 | 1,500 | 4,600 | 0 | 0 | 1,500 | 4,700 |
| South Carolina | 10,500 | 9,300 | 29,200 | 7,900 | --- | --- | 39,700 | 17,200 |
| Vermont | 4,500 | 5,200 | 4,000 | 4,400 | --- | --- | 8,600 | 9,600 |
| Virginia | 9,700 | 10,700 | 42,000 | 47,100 | 0 | 0 | 51,700 | 57,800 |
| West Virginia | 1,500 | 600 | 4,300 | 4,300 | --- | --- | 5,800 | 4,900 |
| Atlantic Flyway Total | 187,400 | 161,700 | 503,300 | 508,400 | 5,600 | 6,700 | 696,100 | 676,700 |
| Alabama | 13,200 | 7,400 | 6,600 | 23,600 | --- | --- | 19,700 | 30,900 |
| Arkansas | 1,900 | 3,600 | 7,600 | 9,900 | --- | --- | 9,500 | 13,600 |
| Illinois | 16,700 | 15,700 | 76,000 | 95,500 | --- | --- | 92,700 | 111,200 |
| Indiana | 15,700 | 12,300 | 36,200 | 32,400 | 8,100 | 10,200 | 60,000 | 54,900 |
| Iowa | 600 | 0 | 38,400 | 73,700 | --- | --- | 38,900 | 73,700 |
| Kentucky | 1,400 | 10,800 | 5,300 | 30,100 | --- | --- | 6,600 | 40,900 |
| Louisiana | 0 | 0 | 600 | 0 | --- | --- | 600 | 0 |
| Michigan | 60,400 | 55,300 | 83,700 | 91,900 | 400 | 700 | 144,500 | 148,000 |
| Minnesota ${ }^{\text {a }}$ | 73,100 | 78,400 | 162,700 | 108,900 | --- | --- | 235,900 | 191,600 |
| Mississippi | 0 | 0 | 5,300 | 7,200 | --- | --- | 5,300 | 7,200 |
| Missouri | 0 | 0 | 39,100 | 35,100 | --- | --- | 39,100 | 35,100 |
| Ohio | 13,200 | 33,900 | 46,200 | 94,600 | --- | --- | 59,400 | 128,500 |
| Tennessee | 14,800 | 4,000 | 14,800 | 8,000 | --- | --- | 29,600 | 12,000 |
| Wisconsin | 23,900 | 27,900 | 59,900 | 57,900 | --- | --- | 83,800 | 85,800 |
| Mississippi Flyway Total | 234,700 | 249,300 | 582,300 | 668,800 | 8,500 | 11,000 | 825,500 | 933,400 |
| Kansas | 0 | 0 | 72,200 | 108,700 | --- | --- | 72,200 | 108,700 |
| Nebraska | 0 | 0 | 97,800 | 111,000 | --- | --- | 97,800 | 111,000 |
| North Dakota ${ }^{\text {b }}$ | 16,900 | 33,900 | 120,900 | 122,100 | --- | --- | 147,200 | 168,500 |
| Oklahoma | 200 | 0 | 40,600 | 75,600 | --- | --- | 40,800 | 75,600 |
| South Dakota ${ }^{\text {c }}$ | 21,500 | 54,100 | 76,400 | 78,900 | --- | --- | 100,700 | 135,500 |
| Colorado | 0 | 1,100 | 10,800 | 7,300 | --- | --- | 10,800 | 8,400 |
| Oregon | 4,400 | 2,900 | 44,100 | 45,800 | --- | --- | 48,400 | 48,700 |
| Washington | 3,000 | 3,200 | 57,800 | 44,600 | 700 | 500 | 61,500 | 48,300 |
| Wyoming | 200 | 1,100 | 700 | 700 | --- | --- | 800 | 1,800 |

${ }^{\mathrm{a}}$ The total harvest for Minnesota includes managed take of geese during August: 4,400 in 2013.
${ }^{\mathrm{b}}$ The total harvest for North Dakota includes managed take of geese during August: 9,400 in 2012 and 12,500 in 2013.
${ }^{c}$ The total harvest for South Dakota includes managed take of geese during August: 2,800 in 2012 and 2,500 in 2013.

Table 7. Waterfowl harvest estimates in Canada during the 2012 and 2013 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

| Duck Species Composition | Newfoundland |  | Prince Edward Isl. |  | Nova Scotia |  | New Brunswick |  | Quebec |  | Ontario |  | Manitoba |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 770 | 0 | 1,480 | 758 | 3,060 | 7,500 | 5,680 | 9,689 | 55,860 | 47,579 | 79,180 | 107,319 | 67,170 | 42,549 |
| Black Duck | 20,210 | 18,034 | 8,800 | 7,296 | 24,620 | 26,773 | 13,260 | 10,661 | 24,590 | 22,433 | 11,880 | 14,436 | 0 | 152 |
| Gadwall | 0 | 0 | 220 | 0 | 280 | 171 | 70 | 312 | 1,500 | 1,748 | 5,870 | 4,191 | 4,510 | 3,665 |
| Wigeon | 0 | 0 | 580 | 0 | 110 | 1,110 | 1,380 | 705 | 1,140 | 2,231 | 5,090 | 8,642 | 1,760 | 3,098 |
| Green-winged Teal | 580 | 4,772 | 3,400 | 471 | 4,780 | 3,405 | 3,520 | 5,244 | 21,550 | 26,768 | 13,820 | 16,466 | 6,450 | 13,529 |
| Blue-winged/Cinnamon Teal | 0 | 0 | 100 | 384 | 530 | 187 | 1,380 | 561 | 4,400 | 1,248 | 8,440 | 3,882 | 10,470 | 20,242 |
| Northern Shoveler | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 390 | 399 | 1,350 | 1,071 | 1,790 | 6,162 |
| Northern Pintail | 0 | 612 | 440 | 671 | 60 | 696 | 0 | 721 | 2,220 | 7,060 | 2,360 | 4,850 | 2,520 | 3,796 |
| Wood Duck | 0 | 0 | 0 | 0 | 600 | 320 | 2,670 | 3,140 | 15,780 | 13,842 | 53,240 | 51,884 | 3,820 | 1,734 |
| Redhead | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 380 | 72 | 4,770 | 3,668 | 4,060 | 9,409 |
| Canvasback | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 500 | 1,979 | 2,040 | 5,318 |
| Greater Scaup | 220 | 1,251 | 0 | 234 | 0 | 105 | 200 | 692 | 1,760 | 2,081 | 4,020 | 4,993 | 0 | 156 |
| Lesser Scaup | 0 | 575 | 890 | 837 | 230 | 205 | 190 | 1,404 | 2,990 | 2,060 | 9,670 | 11,648 | 7,780 | 8,964 |
| Ring-necked Duck | 9,080 | 2,644 | 2,040 | 843 | 630 | 295 | 2,360 | 2,174 | 8,110 | 5,944 | 16,630 | 11,780 | 6,040 | 6,675 |
| Goldeneyes | 6,580 | 4,107 | 310 | 552 | 1,120 | 1,386 | 1,060 | 2,075 | 2,890 | 1,773 | 4,640 | 4,545 | 100 | 1,065 |
| Bufflehead | 0 | 0 | 0 | 55 | 620 | 620 | 250 | 0 | 1,690 | 1,126 | 13,340 | 9,535 | 1,670 | 1,500 |
| Ruddy Duck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,170 | 0 | 360 | 0 |
| Long-tailed Duck | 420 | 183 | 0 | 0 | 0 | 361 | 0 | 0 | 110 | 657 | 110 | 1,421 | 0 | 0 |
| Eiders | 12,910 | 12,531 | 0 | 0 | 970 | 355 | 310 | 643 | 2,120 | 1,683 | 0 | 110 | 0 | 0 |
| Scoters | 60 | 368 | 0 | 0 | 1,500 | 801 | 1,360 | 110 | 4,220 | 2,782 | 810 | 487 | 0 | 0 |
| Hooded Merganser | 1,940 | 1,472 | 340 | 487 | 1,010 | 623 | 50 | 55 | 3,650 | 900 | 5,000 | 766 | 990 | 0 |
| Other Mergansers | 2,370 | 6,737 | 1,260 | 539 | 620 | 1,055 | 130 | 141 | 3,010 | 4,030 | 1,090 | 5,076 | 0 | 680 |
| Other Ducks | 0 | 0 | 0 | 0 | 500 | 0 | 0 | 0 | 0 | 134 | 0 | 0 | 0 | 0 |
| Total Duck Harvest | 55,130 | 53,286 | 19,840 | 13,127 | 41,230 | 45,968 | 33,880 | 38,399 | 158,370 | 146,550 | 242,970 | 268,749 | 121,540 | 128,694 |


Total Goose Harvest
$\begin{array}{llll}6,500 & 7,201 & 16,610 & 14,370\end{array}$
8,730 12,616
$10,200 \quad 12,153 \quad 194,330 \quad 195,008$
180,450 201,033
115,980 117,698

| Migratory Bird Permits Sold |
| :--- | :--- |

Table 7 (continued). Waterfowl harvest estimates in Canada during the 2012 and 2013 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

| Duck Species Composition | Saskatchewan |  | Alberta |  | British Columbia |  | Nunavut |  | Northwest Terr. |  | Yukon Territory |  | Canada Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Mallard | 188,380 | 193,591 | 89,250 | 106,935 | 36,160 | 29,986 | 0 | 0 | 420 | 923 | 930 | 0 | 528,330 | 546,829 |
| Black Duck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103,360 | 99,785 |
| Gadwall | 15,570 | 18,864 | 8,970 | 10,706 | 180 | 237 | 0 | 0 | 0 | 0 | 0 | 0 | 37,170 | 39,894 |
| Wigeon | 5,950 | 2,527 | 5,210 | 2,710 | 9,900 | 5,851 | 0 | 0 | 330 | 461 | 0 |  | 31,440 | 27,335 |
| Green-winged Teal | 4,360 | 6,969 | 4,310 | 3,734 | 1,120 | 1,626 | 0 | 0 | 0 | 0 | 0 | 0 | 63,890 | 82,984 |
| Blue-winged/Cinnamon Teal | 15,470 | 38,943 | 5,640 | 12,572 | 80 | 328 | 0 | 0 | 0 | 0 | 0 | 0 | 46,500 | 78,347 |
| Northern Shoveler | 12,330 | 15,458 | 4,010 | 7,051 | 340 | 1,467 | 0 | 0 | 0 | 0 | 0 | 0 | 20,210 | 31,680 |
| Northern Pintail | 15,470 | 19,243 | 14,310 | 15,786 | 4,460 | 2,357 | 0 | 0 | 0 | 0 | 0 | 0 | 41,840 | 55,792 |
| Wood Duck | 0 |  | 0 |  | 170 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 76,280 | 70,945 |
| Redhead | 3,970 | 5,884 | 2,200 | 4,106 | 0 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 15,380 | 23,214 |
| Canvasback | 1,690 | 761 | 1,350 | 6,051 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5,580 | 14,109 |
| Greater Scaup | 0 | 0 | 190 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,390 | 9,512 |
| Lesser Scaup | 1,410 | 1,973 | 5,800 | 4,339 | 150 | 134 | 0 | 0 | 780 | 0 | 0 | 0 | 29,890 | 32,139 |
| Ring-necked Duck | 1,550 | 0 | 1,980 | 0 | 700 | 98 | 0 | 0 | 110 | 0 | 0 | 0 | 49,240 | 30,453 |
| Goldeneyes | 0 | 1,590 | 1,050 | 1,778 | 290 | 734 | 0 | 0 | 0 | 0 | 0 | 0 | 18,040 | 19,605 |
| Bufflehead | 0 | 358 | 470 | 1,755 | 450 | 495 | 0 | 0 | 390 | 0 | 0 | 0 | 18,870 | 15,444 |
| Ruddy Duck | 0 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,730 | 0 |
| Long-tailed Duck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 640 | 2,622 |
| Eiders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16,310 | 15,322 |
| Scoters | 0 | 0 | 0 | 0 | 120 | 0 | 0 | 0 | 110 | 0 | 0 | 0 | 8,180 | 4,548 |
| Hooded Merganser | 630 | 0 | 0 | 0 | 100 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 13,700 | 4,335 |
| Other Mergansers | 0 | 0 | 0 | 0 | 20 | 213 | 0 | 0 | 0 | 0 | 0 | 0 | 8,500 | 18,471 |
| Other Ducks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 500 | 134 |
| Total Duck Harvest | 266,800 | 306,161 | 144,930 | 177,523 | 54,240 | 43,658 | 0 | 0 | 2,130 | 1,384 | 930 | 0 | 1,141,980 | 1,223,499 |
| Goose Species Composition |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada Goose | 178,540 | 141,655 | 98,180 | 80,546 | 16,360 | 11,639 | 0 | 0 | 0 | 0 | 0 | 154 | 740,880 | 726,082 |
| Snow Goose | 62,920 | 65,452 | 6,220 | 24,205 | 2,080 | 1,208 | 0 | 0 | 0 | 0 | 0 | 0 | 142,600 | 151,203 |
| Blue Goose | 32,700 | 62,383 | 1,060 | 5,008 | 30 | 351 | 0 | 0 | 0 | 0 | 0 | 0 | 43,090 | 73,716 |
| Ross's Goose | 20,830 | 29,478 | 620 | 3,798 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 24,720 | 34,955 |
| White-fronted Goose | 36,130 | 42,181 | 21,860 | 32,799 | 700 | 133 | 0 | 0 | 0 | 0 | 0 | 0 | 59,470 | 75,113 |
| Brant | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 250 | 0 |
| Total Goose Harvest | 331,110 | 341,149 | 127,940 | 146,356 | 19,170 | 13,331 | 0 | 0 | 0 | 0 | 0 | 154 | 1,011,010 | 1,061,069 |
| Migratory Bird Permits Sold | 20,076 | 21,376 | 20,899 | 22,736 | 6,786 | 7,108 | 33 | 44 | 261 | 287 | 254 | 259 | 180,042 | 189,844 |



Figure 1. Number of ducks harvested (in thousands) by hunters in the the United States, 1961-2013. (Federal Duck Stamp Survey - circles and solid line; HIP survey squares and dashed line).


Figure 2. Number of geese harvested (in thousands) by hunters in the the United States, 1961-2013. (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 2009-2013 hunting seasons as determined from Waterfowl Parts Collection Survey.

| State and Flyway | Immatures per adult ${ }^{\text {a }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Connecticut | 1.4 | 1.5 | 1.2 | 1.0 | 0.9 |
| Delaware | 1.6 | 0.9 | 1.2 | 1.2 | 2.0 |
| Florida | --- | --- | --- | --- | --- |
| Georgia | 1.2 | 1.2 | 1.2 | 0.9 | 1.6 |
| Maine | 2.8 | 2.7 | 1.9 | 2.5 | 1.4 |
| Maryland | 1.4 | 1.1 | 1.5 | 1.4 | 1.1 |
| Massachusetts | 1.1 | 1.1 | 1.0 | 1.4 | 0.9 |
| New Hampshire | 3.1 | 1.1 | 1.2 | 1.9 | 2.3 |
| New Jersey | 0.8 | 1.0 | 1.1 | 0.8 | 0.6 |
| New York | 1.6 | 1.7 | 1.7 | 1.7 | 1.6 |
| North Carolina | 1.4 | 1.4 | 1.1 | 1.3 | 1.5 |
| Pennsylvania | 1.0 | 1.1 | 1.0 | 1.0 | 1.3 |
| Rhode Island | 0.8 | 0.7 | 0.8 | --- | 1.2 |
| South Carolina | 1.7 | 2.0 | 1.5 | 3.7 | 2.3 |
| Vermont | 2.2 | 1.9 | 1.8 | 1.6 | 1.7 |
| Virginia | 1.2 | 1.0 | 0.7 | 0.8 | 1.1 |
| West Virginia | 0.7 | 1.2 | 1.4 | 1.2 | 0.7 |
| Atlantic Flyway Total ${ }^{\text {b }}$ | 1.37 | 1.30 | 1.24 | 1.38 | 1.37 |
| Alabama | 0.4 | 1.2 | 1.2 | 1.6 | 1.0 |
| Arkansas | 0.9 | 1.1 | 1.3 | 1.0 | 0.8 |
| Illinois | 1.7 | 1.9 | 2.1 | 2.1 | 1.6 |
| Indiana | 1.5 | 1.1 | 1.9 | 1.5 | 1.7 |
| Iowa | 2.3 | 3.4 | 4.6 | 3.1 | 2.9 |
| Kentucky | 1.5 | 1.2 | 1.3 | 1.3 | 1.7 |
| Louisiana | 1.1 | 1.4 | 2.3 | 1.5 | 1.1 |
| Michigan | 2.0 | 1.8 | 2.2 | 2.0 | 1.4 |
| Minnesota | 3.0 | 2.9 | 4.7 | 4.5 | 3.5 |
| Mississippi | 0.7 | 1.3 | 1.2 | 1.3 | 0.6 |
| Missouri | 1.3 | 2.3 | 2.3 | 1.9 | 1.4 |
| Ohio | 1.4 | 1.7 | 1.9 | 1.6 | 1.2 |
| Tennessee | 1.0 | 1.6 | 1.3 | 1.5 | 0.9 |
| Wisconsin | 2.6 | 2.9 | 3.5 | 2.9 | 2.6 |
| Mississippi Flyway Total ${ }^{\text {b }}$ | 1.24 | 1.59 | 1.91 | 1.68 | 1.31 |

Table 8 (continued). Preliminary weighted age ratios of mallards in state harvests during the 2009-2013 hunting seasons as determined from Waterfowl Parts Collection Survey.

|  | Immatures per adult $^{\text {a }}$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| State and Flyway | 2009 | 2010 | 2011 | 2012 | 2013 |
| Colorado | 0.7 | 0.9 | 1.6 | 0.9 | 1.0 |
| Kansas | 0.6 | 1.3 | 1.2 | 0.7 | 0.9 |
| Montana | 0.8 | 1.0 | 1.0 | 1.1 | 1.6 |
| Nebraska | 0.8 | 1.3 | 1.2 | 1.0 | 1.1 |
| New Mexico | 1.3 | 1.5 | 1.5 | 1.3 | 1.2 |
| North Dakota | 2.3 | 2.4 | 3.7 | 3.2 | 2.6 |
| Oklahoma | 0.4 | 0.6 | 0.7 | 0.4 | 0.6 |
| South Dakota | 1.7 | 2.5 | 2.9 | 2.4 | 1.9 |
| Texas | 0.7 | 0.9 | 0.9 | 0.7 | 0.8 |
| Wyoming | 0.9 | 1.3 | 1.6 | 1.1 | 0.8 |
| Central Flyway Total ${ }^{\text {b }}$ | 1.01 | 1.29 | 1.52 | 1.17 | 1.19 |
|  |  |  |  |  |  |
| Arizona | 1.1 | 1.4 | 2.4 | 1.7 | 1.3 |
| California | 1.9 | 2.2 | 2.7 | 1.5 | 1.4 |
| Colorado | 1.5 | 1.1 | 1.8 | 1.4 | 1.6 |
| Idaho | 1.0 | 1.3 | 2.0 | 1.0 | 1.0 |
| Montana | 1.0 | 1.2 | 2.2 | 1.0 | 1.2 |
| Nevada | 1.4 | 3.2 | 3.7 | 1.3 | 1.3 |
| New Mexico | 0.9 | 0.7 | --- | --- | 0.9 |
| Oregon | 1.6 | 1.5 | 2.1 | 1.5 | 1.3 |
| Utah | 1.7 | 1.3 | 2.6 | 1.5 | 1.2 |
| Washington | 1.1 | 1.4 | 2.0 | 1.4 | 1.6 |
| Wyoming | 2.5 | 1.6 | 2.7 | 2.1 | 4.6 |
| Pacific Flyway Total ${ }^{\text {b }}$ | 1.42 | 1.63 | 2.28 | 1.35 | 1.25 |
| Alaska | 3.4 | 3.2 | 4.0 | 3.8 | 2.4 |
| U.S. Total ${ }^{\text {b }}$ |  |  |  |  |  |
| Ratin | 1.25 | 1.53 | 1.85 | 1.46 | 1.28 |

${ }^{\text {a }}$ Ratio not shown if based on a sample of less than 20 wings
${ }^{\mathrm{b}}$ 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 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Immatures per adult ${ }^{\text {a, } \mathrm{b}}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Mallard |  |  |  |  |  |
| Atlantic | 1.37 | 1.30 | 1.24 | 1.38 | 1.37 |
| Mississippi | 1.24 | 1.59 | 1.91 | 1.68 | 1.31 |
| Central | 1.01 | 1.29 | 1.52 | 1.17 | 1.19 |
| Pacific | 1.42 | 1.63 | 2.28 | 1.35 | 1.25 |
| U.S. Total | 1.25 | 1.53 | 1.85 | 1.46 | 1.28 |
| Black duck |  |  |  |  |  |
| Atlantic | 1.15 | 1.43 | 1.23 | 1.44 | 1.43 |
| Mississippi | 1.65 | 2.24 | 1.38 | 1.56 | 2.00 |
| U.S. Total | 1.27 | 1.58 | 1.27 | 1.47 | 1.56 |
| Mottled duck |  |  |  |  |  |
| Atlantic | 1.07 | 0.69 | 1.20 | 0.80 | 2.45 |
| Mississippi | 1.19 | 1.40 | 3.16 | 1.00 | 2.80 |
| Central | 0.85 | 1.93 | 0.24 | 2.54 | --- |
| U.S. Total | 1.11 | 1.29 | 1.56 | 1.17 | 2.46 |
| Gadwall |  |  |  |  |  |
| Atlantic | 1.00 | 1.82 | 2.61 | 1.13 | 1.48 |
| Mississippi | 1.32 | 1.72 | 1.82 | 1.21 | 1.25 |
| Central | 1.16 | 1.68 | 1.38 | 0.95 | 1.25 |
| Pacific | 1.03 | 1.34 | 1.46 | 0.84 | 1.13 |
| U.S. Total | 1.22 | 1.66 | 1.68 | 1.10 | 1.25 |
| American wigeon |  |  |  |  |  |
| Atlantic | 0.66 | 1.79 | 1.43 | 0.99 | 1.03 |
| Mississippi | 1.37 | 1.69 | 1.97 | 1.38 | 1.27 |
| Central | 0.71 | 1.11 | 0.76 | 0.73 | 0.84 |
| Pacific | 1.29 | 1.34 | 1.76 | 1.21 | 1.52 |
| U.S. Total | 1.10 | 1.41 | 1.48 | 1.08 | 1.24 |
| Green-winged teal |  |  |  |  |  |
| Atlantic | 1.62 | 1.95 | 1.97 | 2.05 | 1.77 |
| Mississippi | 1.23 | 1.61 | 2.00 | 1.60 | 1.80 |
| Central | 1.59 | 1.68 | 1.81 | 1.39 | 1.71 |
| Pacific | 1.05 | 0.87 | 1.28 | 0.93 | 1.35 |
| U.S. Total | 1.25 | 1.39 | 1.75 | 1.36 | 1.66 |
| Blue-winged/Cinnamon teal |  |  |  |  |  |
| Atlantic | 0.96 | 0.97 | 1.97 | 1.25 | 0.98 |
| Mississippi | 1.24 | 1.71 | 1.59 | 1.29 | 1.49 |
| Central | 1.42 | 1.57 | 2.36 | 1.85 | 2.19 |
| Pacific | 0.63 | 0.94 | 1.34 | 1.14 | 1.68 |
| U.S. Total | 1.22 | 1.52 | 1.79 | 1.39 | 1.62 |

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Immatures per adult ${ }^{\text {a, } \mathrm{b}}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Northern shoveler |  |  |  |  |  |
| Atlantic | 0.98 | 1.98 | 3.17 | 1.10 | 1.84 |
| Mississippi | 1.30 | 1.57 | 1.89 | 1.10 | 1.69 |
| Central | 2.12 | 2.28 | 2.05 | 1.14 | 2.38 |
| Pacific | 0.90 | 1.51 | 2.21 | 0.79 | 1.29 |
| U.S. Total | 1.27 | 1.66 | 2.07 | 0.97 | 1.67 |
| Northern pintail |  |  |  |  |  |
| Atlantic | 0.66 | 1.77 | 1.30 | 0.94 | 1.18 |
| Mississippi | 1.30 | 2.03 | 1.67 | 0.89 | 1.71 |
| Central | 1.09 | 1.31 | 0.90 | 0.79 | 1.06 |
| Pacific | 0.98 | 1.24 | 1.44 | 0.71 | 0.98 |
| U.S. Total | 1.07 | 1.46 | 1.35 | 0.78 | 1.21 |
| Wood duck |  |  |  |  |  |
| Atlantic | 1.31 | 1.20 | 0.90 | 1.09 | 1.45 |
| Mississippi | 2.05 | 1.78 | 1.22 | 1.25 | 1.45 |
| Central | 1.01 | 1.42 | 1.09 | 0.97 | 1.11 |
| Pacific | 2.08 | 1.43 | 1.69 | 1.36 | 1.23 |
| U.S. Total | 1.71 | 1.54 | 1.12 | 1.19 | 1.43 |
| Redhead |  |  |  |  |  |
| Atlantic | 0.38 | 1.93 | 2.30 | 0.92 | 1.46 |
| Mississippi | 1.62 | 6.54 | 4.51 | 2.29 | 2.92 |
| Central | 1.56 | 3.47 | 2.15 | 1.51 | 2.25 |
| Pacific | 0.70 | 1.27 | 2.46 | 1.12 | 1.82 |
| U.S. Total | 1.32 | 3.69 | 3.03 | 1.62 | 2.32 |
| Canvasback |  |  |  |  |  |
| Atlantic | 0.52 | 0.58 | 1.24 | 0.45 | 0.80 |
| Mississippi | 0.74 | 1.83 | 1.63 | 0.88 | 1.20 |
| Central | 1.34 | 2.48 | 2.11 | 0.73 | 1.19 |
| Pacific | 1.00 | 1.37 | 2.82 | 0.90 | 1.57 |
| U.S. Total | 0.90 | 1.51 | 1.91 | 0.83 | 1.24 |
| Greater scaup |  |  |  |  |  |
| Atlantic | 0.63 | 0.57 | 0.86 | 0.79 | 1.85 |
| Mississippi | 1.24 | 1.15 | 2.01 | 0.98 | 1.09 |
| Central | --- | --- | --- | --- | --- |
| Pacific | 1.19 | 0.64 | 0.48 | 1.06 | 1.52 |
| U.S. Total | 1.06 | 0.80 | 1.22 | 0.95 | 1.38 |

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Immatures per adult ${ }^{\text {a, b }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Lesser scaup |  |  |  |  |  |
| Atlantic | 0.52 | 0.80 | 1.18 | 0.46 | 0.58 |
| Mississippi | 0.53 | 1.54 | 1.55 | 0.66 | 1.15 |
| Central | 0.82 | 1.23 | 1.29 | 1.09 | 2.22 |
| Pacific | 1.37 | 1.07 | 1.29 | 2.07 | 1.41 |
| U.S. Total | 0.66 | 1.24 | 1.39 | 0.74 | 1.14 |
| Ring-necked duck |  |  |  |  |  |
| Atlantic | 0.93 | 1.45 | 1.54 | 1.53 | 1.86 |
| Mississippi | 1.96 | 2.37 | 2.15 | 1.97 | 2.21 |
| Central | 1.00 | 1.09 | 1.42 | 1.03 | 1.49 |
| Pacific | 1.47 | 1.75 | 1.90 | 2.17 | 1.61 |
| U.S. Total | 1.37 | 1.85 | 1.81 | 1.71 | 1.93 |
| Common goldeneye |  |  |  |  |  |
| Atlantic | 0.62 | 0.80 | 0.58 | 0.57 | 0.74 |
| Mississippi | 0.96 | 0.94 | 1.39 | 1.06 | 1.26 |
| Central | 0.47 | 0.84 | 0.98 | 1.24 | 1.23 |
| Pacific | 0.88 | 0.83 | 1.16 | 1.11 | 0.91 |
| U.S. Total | 0.84 | 0.88 | 1.14 | 1.01 | 1.05 |
| Bufflehead |  |  |  |  |  |
| Atlantic | 0.47 | 0.62 | 0.97 | 1.02 | 1.21 |
| Mississippi | 1.17 | 0.94 | 1.49 | 0.96 | 0.80 |
| Central | 0.83 | 0.45 | 0.94 | 0.81 | 0.62 |
| Pacific | 0.87 | 1.02 | 1.31 | 1.18 | 0.73 |
| U.S. Total | 0.79 | 0.77 | 1.19 | 1.01 | 0.90 |
| Ruddy duck |  |  |  |  |  |
| Atlantic | 1.90 | 0.63 | 2.64 | 1.39 | 1.50 |
| Mississippi | 1.22 | 0.89 | 2.62 | 1.61 | 2.51 |
| Central | 1.81 | 2.85 | 1.99 | 1.40 | 2.57 |
| Pacific | 1.21 | 1.92 | 4.13 | 1.00 | 1.62 |
| U.S. Total | 1.47 | 1.16 | 2.68 | 1.37 | 1.84 |
| Hooded merganser |  |  |  |  |  |
| Atlantic | 0.99 | 0.77 | 0.66 | 0.52 | 0.73 |
| Mississippi | 1.18 | 1.09 | 1.06 | 0.60 | 1.22 |
| Central | 0.74 | 0.75 | 0.83 | 0.66 | 0.65 |
| Pacific | 1.09 | 3.83 | 1.74 | 1.17 | 0.95 |
| U.S. Total | 1.05 | 1.00 | 0.93 | 0.61 | 0.92 |

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Immatures per adult ${ }^{\text {a, } \mathrm{b}}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Common merganser |  |  |  |  |  |
| Atlantic | 1.04 | 1.51 | 1.62 | 1.39 | 1.28 |
| Mississippi | --- | --- | 0.78 | --- | 2.26 |
| Central | --- | --- | --- | --- | --- |
| Pacific | 0.56 | 1.03 | 1.86 | 0.39 | 0.90 |
| U.S. Total | 0.74 | 1.25 | 1.22 | 0.86 | 1.31 |
| Red-breasted merganser |  |  |  |  |  |
| Atlantic | 0.74 | 1.27 | 1.17 | 0.56 | 1.38 |
| Mississippi | 0.73 | --- | 0.40 | 2.08 | 1.92 |
| U.S. Total | 0.76 | 1.33 | 0.89 | 1.01 | 1.72 |
| Long-tailed duck |  |  |  |  |  |
| Atlantic | 0.37 | 0.77 | 0.34 | 1.03 | 1.52 |
| Mississippi | 0.57 | 1.98 | 0.90 | 0.10 | 0.64 |
| U.S. Total | 0.43 | 1.04 | 0.54 | 0.71 | 1.04 |
| Common eider |  |  |  |  |  |
| Atlantic | 0.23 | 0.30 | 0.21 | 0.38 | 0.18 |
| U.S. Total | 0.23 | 0.30 | 0.21 | 0.38 | 0.18 |
| Black scoter |  |  |  |  |  |
| Atlantic | 0.41 | 0.66 | 0.59 | 0.67 | 1.27 |
| U.S. Total | 0.41 | 0.68 | 0.62 | 0.73 | 1.32 |
| White-winged scoter |  |  |  |  |  |
| Atlantic | 0.15 | 0.76 | 2.02 | -- | 2.07 |
| Pacific | 0.29 | --- | 0.49 | --- | --- |
| U.S. Total | 0.43 | 1.18 | 1.91 | 3.73 | 2.17 |
| Surf scoter |  |  |  |  |  |
| Atlantic | 0.21 | 0.60 | 0.58 | 3.68 | 0.47 |
| Pacific | 0.37 | --- | 0.51 | 0.25 | 0.65 |
| U.S. Total | 0.29 | 1.08 | 0.71 | 2.52 | 0.55 |

${ }^{\text {a }}$ Ratio not shown if based on a sample of less than 20 wings
${ }^{\mathrm{b}}$ 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 2009-2013 hunting seasons as determined from Waterfowl Parts Collection Survey.

| State and Flyway | Males per female ${ }^{\text {a }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Connecticut | 2.0 | 2.2 | 1.7 | 2.3 | 2.2 |
| Delaware | 1.5 | 2.0 | 1.7 | 1.8 | 1.8 |
| Florida | --- | --- | --- | --- | -- |
| Georgia | 2.4 | 1.3 | 2.1 | 1.7 | 1.9 |
| Maine | 1.4 | 1.2 | 1.5 | 1.2 | 1.7 |
| Maryland | 1.9 | 2.4 | 2.5 | 2.7 | 2.5 |
| Massachusetts | 1.5 | 1.6 | 1.6 | 2.0 | 1.9 |
| New Hampshire | 2.0 | 1.6 | 1.8 | 1.7 | 1.5 |
| New Jersey | 2.2 | 1.7 | 2.5 | 1.7 | 1.6 |
| New York | 1.7 | 1.8 | 1.7 | 1.9 | 1.9 |
| North Carolina | 2.0 | 1.6 | 1.9 | 2.0 | 1.4 |
| Pennsylvania | 2.1 | 2.2 | 2.2 | 1.8 | 2.1 |
| Rhode Island | 1.6 | 2.3 | 1.8 | --- | 2.2 |
| South Carolina | 1.7 | 2.0 | 2.3 | 1.2 | 2.1 |
| Vermont | 1.0 | 1.4 | 1.5 | 2.0 | 1.7 |
| Virginia | 2.1 | 2.1 | 2.2 | 1.9 | 1.6 |
| West Virginia | 2.2 | 1.8 | 1.6 | 1.5 | 2.1 |
| Atlantic Flyway Total ${ }^{\text {b }}$ | 1.86 | 1.84 | 1.95 | 1.83 | 1.87 |
| Alabama | 2.5 | 1.7 | 2.3 | 0.9 | 2.9 |
| Arkansas | 3.0 | 2.3 | 2.4 | 2.3 | 2.6 |
| Illinois | 2.2 | 2.1 | 2.6 | 1.8 | 2.5 |
| Indiana | 3.1 | 2.3 | 2.4 | 2.5 | 2.0 |
| Iowa | 1.7 | 2.5 | 2.2 | 2.4 | 2.6 |
| Kentucky | 2.6 | 2.5 | 2.0 | 2.5 | 1.9 |
| Louisiana | 2.8 | 1.9 | 1.2 | 1.7 | 1.5 |
| Michigan | 1.7 | 2.0 | 2.0 | 2.1 | 2.5 |
| Minnesota | 2.0 | 1.9 | 1.4 | 1.8 | 1.4 |
| Mississippi | 3.2 | 2.1 | 2.1 | 2.3 | 3.0 |
| Missouri | 3.3 | 3.1 | 2.3 | 2.9 | 2.6 |
| Ohio | 2.6 | 3.0 | 2.6 | 2.3 | 3.0 |
| Tennessee | 2.4 | 1.6 | 2.1 | 2.8 | 2.2 |
| Wisconsin | 2.0 | 2.2 | 2.2 | 2.0 | 2.1 |
| Mississippi Flyway Total ${ }^{\text {b }}$ | 2.58 | 2.20 | 2.12 | 2.16 | 2.26 |

Table 10 (continued). Preliminary weighted sex ratios of mallards in state harvests during the 2009-2013 hunting seasons as determined from Waterfowl Parts Collection Survey.

| State and Flyway | Males per female ${ }^{\text {a }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Colorado | 4.2 | 2.6 | 2.7 | 3.0 | 3.2 |
| Kansas | 5.8 | 4.0 | 3.9 | 4.2 | 4.7 |
| Montana | 4.1 | 3.7 | 3.3 | 3.2 | 4.9 |
| Nebraska | 4.9 | 3.4 | 4.9 | 3.2 | 4.3 |
| New Mexico | 3.3 | 4.3 | 3.1 | 6.0 | 3.8 |
| North Dakota | 2.5 | 2.2 | 2.4 | 2.3 | 2.2 |
| Oklahoma | 3.6 | 3.8 | 3.0 | 3.2 | 3.7 |
| South Dakota | 4.7 | 3.4 | 3.0 | 2.5 | 3.1 |
| Texas | 3.0 | 2.3 | 2.6 | 2.2 | 1.8 |
| Wyoming | 5.2 | 4.0 | 2.9 | 2.8 | 2.5 |
| Central Flyway Total ${ }^{\text {b }}$ | 3.67 | 3.04 | 3.03 | 2.77 | 3.03 |
| Arizona | 1.4 | 1.6 | 1.2 | 1.5 | 1.6 |
| California | 2.3 | 2.2 | 2.1 | 2.2 | 2.5 |
| Colorado | 2.2 | 2.9 | 2.7 | 2.1 | 2.6 |
| Idaho | 2.5 | 3.1 | 2.6 | 3.1 | 2.9 |
| Montana | 2.4 | 3.4 | 3.4 | 1.9 | 2.7 |
| Nevada | 1.3 | 2.0 | 1.8 | 1.3 | 1.4 |
| New Mexico | 2.2 | 3.1 | --- | --- | 1.4 |
| Oregon | 1.9 | 1.8 | 2.0 | 2.0 | 2.3 |
| Utah | 2.6 | 2.9 | 2.4 | 2.1 | 2.1 |
| Washington | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 |
| Wyoming | 1.7 | 2.4 | 1.6 | 1.6 | 2.1 |
| Pacific Flyway Total ${ }^{\text {b }}$ | 2.23 | 2.30 | 2.17 | 2.22 | 2.38 |
| Alaska | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 |
| U.S. Total ${ }^{\text {b }}$ | 2.54 | 2.27 | 2.24 | 2.24 | 2.37 |

${ }^{\text {a }}$ Ratio not shown if based on a sample of less than 20 wings
${ }^{\mathrm{b}}$ 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 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Males per female ${ }^{\text {a }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Mallard |  |  |  |  |  |
| Atlantic | 1.86 | 1.84 | 1.95 | 1.83 | 1.87 |
| Mississippi | 2.58 | 2.20 | 2.12 | 2.16 | 2.26 |
| Central | 3.67 | 3.04 | 3.03 | 2.77 | 3.03 |
| Pacific | 2.23 | 2.30 | 2.17 | 2.22 | 2.38 |
| U.S. Total | 2.54 | 2.27 | 2.24 | 2.24 | 2.37 |
| Black duck |  |  |  |  |  |
| Atlantic | 1.00 | 1.04 | 1.02 | 1.05 | 1.01 |
| Mississippi | 0.87 | 0.67 | 1.70 | 1.11 | 1.32 |
| U.S. Total | 0.96 | 0.94 | 1.16 | 1.06 | 1.08 |
| Mottled duck |  |  |  |  |  |
| Atlantic | 0.98 | 0.82 | 1.18 | 1.21 | 1.34 |
| Mississippi | 1.05 | 1.18 | 0.78 | 1.10 | 1.38 |
| Central | 1.27 | 0.96 | 1.14 | 1.71 | --- |
| U.S. Total | 1.06 | 1.07 | 0.91 | 1.22 | 1.31 |
| Gadwall |  |  |  |  |  |
| Atlantic | 1.83 | 1.77 | 1.15 | 1.33 | 1.90 |
| Mississippi | 1.79 | 1.73 | 1.60 | 1.67 | 1.47 |
| Central | 1.66 | 1.69 | 1.58 | 1.59 | 1.64 |
| Pacific | 1.76 | 1.69 | 1.52 | 1.48 | 1.66 |
| U.S. Total | 1.75 | 1.72 | 1.57 | 1.62 | 1.55 |
| American wigeon |  |  |  |  |  |
| Atlantic | 2.15 | 1.39 | 1.14 | 1.39 | 1.88 |
| Mississippi | 1.40 | 1.85 | 1.52 | 1.63 | 1.42 |
| Central | 2.02 | 1.85 | 1.90 | 1.99 | 1.94 |
| Pacific | 1.64 | 1.62 | 1.41 | 1.48 | 1.54 |
| U.S. Total | 1.70 | 1.66 | 1.49 | 1.62 | 1.63 |
| Green-winged teal |  |  |  |  |  |
| Atlantic | 1.31 | 1.14 | 1.35 | 1.28 | 1.21 |
| Mississippi | 1.71 | 2.01 | 1.73 | 1.69 | 1.66 |
| Central | 1.73 | 1.82 | 2.16 | 2.15 | 1.73 |
| Pacific | 1.81 | 1.83 | 1.65 | 1.84 | 1.68 |
| U.S. Total | 1.70 | 1.84 | 1.74 | 1.78 | 1.64 |
| Blue-winged/Cinnamon teal |  |  |  |  |  |
| Atlantic | 1.48 | 1.55 | 1.20 | 1.18 | 1.51 |
| Mississippi | 1.79 | 1.51 | 1.58 | 1.46 | 1.68 |
| Central | 1.46 | 1.58 | 1.53 | 1.38 | 1.47 |
| Pacific | 1.19 | 1.72 | 1.04 | 1.47 | 1.26 |
| U.S. Total | 1.64 | 1.54 | 1.49 | 1.42 | 1.60 |

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Males per female ${ }^{\text {a }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Northern shoveler |  |  |  |  |  |
| Atlantic | 1.26 | 1.32 | 1.52 | 1.50 | 1.44 |
| Mississippi | 1.83 | 1.71 | 1.43 | 1.69 | 1.62 |
| Central | 1.42 | 1.35 | 1.41 | 1.48 | 1.30 |
| Pacific | 1.89 | 1.70 | 1.18 | 1.68 | 1.43 |
| U.S. Total | 1.72 | 1.63 | 1.33 | 1.64 | 1.47 |
| Northern pintail |  |  |  |  |  |
| Atlantic | 1.25 | 2.43 | 1.78 | 1.13 | 2.36 |
| Mississippi | 3.04 | 2.11 | 1.83 | 2.35 | 2.19 |
| Central | 2.34 | 2.35 | 2.24 | 2.51 | 2.12 |
| Pacific | 2.72 | 2.69 | 2.30 | 2.46 | 2.47 |
| U.S. Total | 2.59 | 2.40 | 2.12 | 2.39 | 2.25 |
| Wood duck |  |  |  |  |  |
| Atlantic | 2.15 | 2.17 | 1.92 | 1.96 | 1.91 |
| Mississippi | 1.83 | 1.86 | 1.98 | 1.83 | 1.93 |
| Central | 3.15 | 2.05 | 2.15 | 2.09 | 2.20 |
| Pacific | 1.61 | 1.77 | 1.64 | 1.88 | 1.58 |
| U.S. Total | 1.96 | 1.95 | 1.96 | 1.88 | 1.92 |
| Redhead |  |  |  |  |  |
| Atlantic | 1.60 | 1.09 | 0.58 | 1.51 | 1.79 |
| Mississippi | 1.24 | 1.14 | 1.22 | 1.84 | 1.69 |
| Central | 1.11 | 1.38 | 1.50 | 1.50 | 1.62 |
| Pacific | 1.26 | 1.16 | 1.68 | 1.41 | 1.57 |
| U.S. Total | 1.20 | 1.22 | 1.33 | 1.60 | 1.66 |
| Canvasback |  |  |  |  |  |
| Atlantic | 1.59 | 1.97 | 1.37 | 3.55 | 1.37 |
| Mississippi | 1.09 | 1.72 | 0.99 | 1.12 | 1.22 |
| Central | 1.10 | 1.16 | 0.74 | 1.40 | 1.42 |
| Pacific | 1.50 | 1.03 | 0.91 | 1.17 | 1.16 |
| U.S. Total | 1.24 | 1.49 | 0.90 | 1.24 | 1.25 |
| Greater scaup |  |  |  |  |  |
| Atlantic | 1.38 | 1.38 | 1.06 | 1.15 | 1.41 |
| Mississippi | 1.02 | 0.73 | 1.18 | 0.89 | 0.94 |
| Central | --- | --- | --- | --- | --- |
| Pacific | 2.06 | 1.61 | 2.14 | 1.33 | 1.98 |
| U.S. Total | 1.38 | 1.16 | 1.26 | 1.06 | 1.15 |

Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Males per female ${ }^{\text {a }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Lesser scaup |  |  |  |  |  |
| Atlantic | 2.57 | 2.32 | 2.24 | 3.58 | 2.87 |
| Mississippi | 2.08 | 1.37 | 2.03 | 2.55 | 1.35 |
| Central | 1.93 | 1.47 | 1.23 | 2.11 | 1.84 |
| Pacific | 1.80 | 1.06 | 1.07 | 1.42 | 1.38 |
| U.S. Total | 2.08 | 1.52 | 1.74 | 2.49 | 1.70 |
| Ring-necked duck |  |  |  |  |  |
| Atlantic | 1.65 | 1.18 | 1.11 | 1.55 | 1.65 |
| Mississippi | 1.84 | 2.21 | 2.06 | 1.83 | 1.64 |
| Central | 2.36 | 1.94 | 3.02 | 3.35 | 2.24 |
| Pacific | 1.48 | 1.46 | 1.87 | 1.88 | 1.56 |
| U.S. Total | 1.82 | 1.82 | 1.79 | 1.87 | 1.70 |
| Common goldeneye |  |  |  |  |  |
| Atlantic | 1.96 | 1.35 | 2.58 | 1.94 | 2.24 |
| Mississippi | 2.01 | 1.75 | 1.40 | 1.18 | 0.73 |
| Central | 2.67 | 1.09 | 1.07 | 2.09 | 1.35 |
| Pacific | 1.77 | 1.33 | 1.42 | 1.71 | 1.88 |
| U.S. Total | 1.91 | 1.44 | 1.48 | 1.59 | 1.31 |
| Bufflehead |  |  |  |  |  |
| Atlantic | 2.38 | 1.74 | 1.90 | 1.37 | 1.67 |
| Mississippi | 1.45 | 1.55 | 1.41 | 1.97 | 1.62 |
| Central | 1.91 | 1.47 | 1.96 | 1.23 | 2.25 |
| Pacific | 1.81 | 1.04 | 1.23 | 1.02 | 1.21 |
| U.S. Total | 1.82 | 1.52 | 1.59 | 1.41 | 1.60 |
| Hooded merganser |  |  |  |  |  |
| Atlantic | 2.30 | 3.04 | 2.43 | 2.43 | 2.07 |
| Mississippi | 4.77 | 2.82 | 1.54 | 1.60 | 3.03 |
| Central | 2.14 | 5.40 | 1.77 | 5.42 | 1.24 |
| Pacific | 1.37 | --- | 1.99 | 3.17 | --- |
| U.S. Total | 2.88 | 3.00 | 1.86 | 2.10 | 2.20 |
| Common merganser |  |  |  |  |  |
| Atlantic | 0.87 | 0.73 | 1.12 | 1.22 | 0.86 |
| Mississippi | --- | --- | --- | --- | --- |
| Central | --- | --- | --- | --- | --- |
| Pacific | 1.19 | 0.88 | 1.34 | 1.20 | 0.82 |
| U.S. Total | 0.88 | 0.70 | 1.07 | 1.27 | 0.81 |

[^1]Table 12. Preliminary weighted age ratios of geese harvested during the 2009-2013 hunting seasons, by species and flyway.

| Species and Flyway | Immatures per adult ${ }^{\text {a }, \mathrm{b}}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Canada goose |  |  |  |  |  |
| Atlantic | 0.37 | 0.63 | 0.34 | 0.46 | 0.47 |
| Mississippi | 0.47 | 0.55 | 0.52 | 0.40 | 0.39 |
| Central | 0.57 | 0.60 | 0.64 | 0.56 | 0.36 |
| Pacific | 0.50 | 0.45 | 0.50 | 0.45 | 0.60 |
| U.S. Total | 0.46 | 0.57 | 0.49 | 0.46 | 0.42 |
| Snow goose |  |  |  |  |  |
| Atlantic | 0.26 | 0.44 | 0.77 | 0.33 | 0.50 |
| Mississippi | 0.20 | 0.30 | 0.62 | 0.22 | 0.99 |
| Central | 0.14 | 0.42 | 0.31 | 0.37 | 0.23 |
| Pacific | 0.67 | 0.59 | 0.84 | 0.74 | 0.35 |
| U.S. Total | 0.25 | 0.44 | 0.52 | 0.40 | 0.43 |
| Blue goose |  |  |  |  |  |
| Mississippi | 0.50 | 0.54 | 0.64 | 0.36 | 0.64 |
| Central | 0.22 | 0.59 | 0.89 | 0.51 | 0.46 |
| U.S. Total | 0.35 | 0.57 | 0.75 | 0.46 | 0.56 |
| Ross' goose |  |  |  |  |  |
| Mississippi | --- | --- | --- | --- | --- |
| Central | 0.70 | 0.93 | 1.22 | 0.89 | 1.06 |
| Pacific | 0.10 | 0.19 | 0.31 | 0.15 | 0.36 |
| U.S. Total | 0.54 | 0.60 | 0.74 | 0.56 | 0.79 |
| Greater white-fronted goose |  |  |  |  |  |
| Mississippi | 0.49 | 0.46 | 1.06 | 0.35 | 0.48 |
| Central | 0.61 | 0.70 | 0.87 | 0.70 | 0.76 |
| Pacific | 1.42 | 0.94 | 0.71 | 0.77 | 0.43 |
| U.S. Total | 0.72 | 0.66 | 0.87 | 0.56 | 0.53 |
| Brant |  |  |  |  |  |
| Atlantic | 0.22 | 0.52 | 0.68 | 0.27 | 0.05 |
| Pacific | 1.35 | 0.51 | 1.01 | 0.39 | 0.12 |
| U.S. Total | 0.26 | 0.44 | 0.70 | 0.28 | 0.08 |

[^2]

Figure 3. Age ratios of mallards harvested in the United States, 1961-2013.


Figure 4. Age ratios of northern pintails harvested in the United States, 1961-2013.

American black ducks


Mssissippi Flyway


Uriled Saztes


Wood ducks


Mississippi Flyway


Urited States:


Figure 5. Age ratios of American black ducks (left column) and wood ducks (right column) harvested in the United States, 1961-2013.


Figure 6. Age ratios of lesser scaup harvested in the United States, 1961-2013.

Table 13. Preliminary estimates of mourning dove harvest and hunter activity during the 2012 and 2013 hunting seasons ${ }^{1}$.

| State and | Mourning Dove Harvest |  | Active Hunters ${ }^{2}$ |  | Mourning Dove Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Unit | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Alabama | $687,100 \pm 15 \%$ | 634,200 $\pm 15 \%$ | 38,500 $\pm 10 \%$ | 36,800 $\pm 11 \%$ | 116,400 $\pm 23 \%$ | 91,400 $\pm 27 \%$ | $17.8 \pm 18 \%$ | $17.2 \pm 19 \%$ |
| Delaware | $39,900 \pm 28 \%$ | $33,100 \pm 57 \%$ | $2,400 \pm 21 \%$ | $1,800 \pm 42 \%$ | 7,200 $\pm 30 \%$ | $4,500 \pm 48 \%$ | $16.5 \pm 36 \%$ | $18.1 \pm 71 \%$ |
| Florida | $175,100 \pm 28 \%$ | 200,700 $\pm 56 \%$ | $10,700 \pm 32 \%$ | 10,900 $\pm 36 \%$ | $48,500 \pm 59 \%$ | $31,900 \pm 35 \%$ | $16.4 \pm 43 \%$ | $18.4 \pm 66 \%$ |
| Georgia | $735,700 \pm 15 \%$ | $851,600 \pm 46 \%$ | $35,600 \pm 11 \%$ | $47,600 \pm 22 \%$ | 94,600 $\pm 14 \%$ | 125,000 $\pm 35 \%$ | $20.7 \pm 19 \%$ | $17.9 \pm 51 \%$ |
| Illinois | $372,700 \pm 26 \%$ | $426,600 \pm 23 \%$ | 20,500 $\pm 17 \%$ | $24,400 \pm 18 \%$ | 62,700 $\pm 22 \%$ | $67,200 \pm 23 \%$ | $18.2 \pm 31 \%$ | $17.5 \pm 29 \%$ |
| Indiana | $263,300 \pm 34 \%$ | $160,100 \pm 20 \%$ | $14,100 \pm 23 \%$ | 7,700 $\pm 21 \%$ | $40,700 \pm 26 \%$ | $24,400 \pm 18 \%$ | $18.7 \pm 41 \%$ | $20.8 \pm 29 \%$ |
| Kentucky | $511,800 \pm 43 \%$ | $632,900 \pm 30 \%$ | $21,500 \pm 39 \%$ | 29,500 $\pm 33 \%$ | $61,100 \pm 41 \%$ | $82,300 \pm 36 \%$ | $23.8 \pm 58 \%$ | $21.5 \pm 45 \%$ |
| Louisiana | $354,100 \pm 50 \%$ | $625,400 \pm 62 \%$ | $17,800 \pm 29 \%$ | $24,800 \pm 56 \%$ | $60,400 \pm 43 \%$ | $74,700 \pm 61 \%$ | $19.9 \pm 58 \%$ | $25.2 \pm 83 \%$ |
| Maryland | $94,300 \pm 25 \%$ | $85,000 \pm 22 \%$ | 6,200 $\pm 22 \%$ | $6,000 \pm 22 \%$ | $16,800 \pm 26 \%$ | $16,500 \pm 30 \%$ | $15.1 \pm 33 \%$ | $14.2 \pm 32 \%$ |
| Mississippi | 286,900 $\pm 28 \%$ | $336,200 \pm 24 \%$ | $11,800 \pm 15 \%$ | $17,200 \pm 15 \%$ | $32,300 \pm 23 \%$ | $40,500 \pm 22 \%$ | $24.3 \pm 32 \%$ | $19.5 \pm 29 \%$ |
| North Carolina | 1,020,600 $\pm 22 \%$ | $555,200 \pm 24 \%$ | $62,100 \pm 16 \%$ | $43,500 \pm 18 \%$ | $148,000 \pm 18 \%$ | $93,800 \pm 20 \%$ | $16.4 \pm 27 \%$ | $12.8 \pm 30 \%$ |
| Ohio | 136,000 $\pm 33 \%$ | $371,600 \pm 29 \%$ | $8,600 \pm 23 \%$ | $19,900 \pm 17 \%$ | $33,500 \pm 35 \%$ | $65,600 \pm 23 \%$ | $15.8 \pm 41 \%$ | $18.6 \pm 33 \%$ |
| Pennsylvania | $203,200 \pm 30 \%$ | $250,700 \pm 61 \%$ | $18,000 \pm 26 \%$ | 17,700 $\pm 24 \%$ | $60,200 \pm 26 \%$ | $60,300 \pm 31 \%$ | $11.3 \pm 40 \%$ | $14.2 \pm 66 \%$ |
| Rhode Island | $500 \pm 77 \%$ | $1,300 \pm 122 \%$ | $100 \pm 47 \%$ | $200 \pm 55 \%$ | $400 \pm 61 \%$ | $500 \pm 54 \%$ | $7.9 \pm 91 \%$ | $6.9 \pm 134 \%$ |
| South Carolina | $554,600 \pm 30 \%$ | $372,200 \pm 32 \%$ | $25,100 \pm 21 \%$ | $20,400 \pm 25 \%$ | $81,900 \pm 28 \%$ | $68,800 \pm 30 \%$ | $22.1 \pm 36 \%$ | $18.2 \pm 41 \%$ |
| Tennessee | $464,400 \pm 26 \%$ | $474,500 \pm 29 \%$ | $27,000 \pm 18 \%$ | $27,400 \pm 19 \%$ | $71,300 \pm 25 \%$ | $64,200 \pm 26 \%$ | $17.2 \pm 31 \%$ | $17.4 \pm 35 \%$ |
| Virginia | $295,900 \pm 19 \%$ | 251,500 $\pm 19 \%$ | $19,900 \pm 14 \%$ | $16,900 \pm 14 \%$ | $45,100 \pm 15 \%$ | $40,600 \pm 17 \%$ | $14.9 \pm 24 \%$ | $14.8 \pm 24 \%$ |
| West Virginia | $10,300 \pm 33 \%$ | $15,000 \pm 38 \%$ | 1,000 $\pm 24 \%$ | $1,300 \pm 28 \%$ | 1,900 $\pm 42 \%$ | $2,300 \pm 34 \%$ | $10.7 \pm 41 \%$ | $11.5 \pm 47 \%$ |
| Wisconsin | $73,200 \pm 31 \%$ | $72,800 \pm 35 \%$ | 8,900 $\pm 32 \%$ | 9,000 $\pm 31 \%$ | $32,700 \pm 29 \%$ | $33,600 \pm 34 \%$ | $8.3 \pm 44 \%$ | $8.1 \pm 47 \%$ |
| Eastern Unit Total | 6,279,900 $\pm 8 \%$ | 6,350,600 $\pm 11 \%$ | 349,600 | 363,100 | 1,015,600 $\pm 7 \%$ | 987,900 $\pm 9 \%$ |  |  |
| Arkansas | $494,200 \pm 30 \%$ | $155,900 \pm 46 \%$ | $21,400 \pm 22 \%$ | $8,900 \pm 41 \%$ | $57,600 \pm 26 \%$ | $30,100 \pm 57 \%$ | $23.1 \pm 37 \%$ | $17.5 \pm 62 \%$ |
| Colorado | $204,300 \pm 26 \%$ | $176,900 \pm 25 \%$ | $17,000 \pm 18 \%$ | $15,600 \pm 15 \%$ | $43,800 \pm 26 \%$ | $36,900 \pm 19 \%$ | $12.0 \pm 32 \%$ | $11.3 \pm 29 \%$ |
| Iowa ${ }^{3}$ | , | $214,300 \pm 16 \%$ | 17,00 | 12,900 $\pm 9 \%$ | - | $49,400 \pm 14 \%$ | - | $16.6 \pm 18 \%$ |
| Kansas | $244,800 \pm 62 \%$ | $504,400 \pm 18 \%$ | $12,200 \pm 39 \%$ | $31,900 \pm 12 \%$ | $49,100 \pm 52 \%$ | $93,000 \pm 16 \%$ | $20.1 \pm 73 \%$ | $15.8 \pm 22 \%$ |
| Minnesota | $65,400 \pm 75 \%$ | $53,500 \pm 30 \%$ | 6,800 $\pm 52 \%$ | 7,700 $\pm 55 \%$ | $21,600 \pm 48 \%$ | $17,000 \pm 40 \%$ | $9.7 \pm 91 \%$ | $7.0 \pm 62 \%$ |
| Missouri | 296,600 $\pm 81 \%$ | $587,600 \pm 28 \%$ | $23,800 \pm 29 \%$ | $36,400 \pm 11 \%$ | $51,400 \pm 50 \%$ | $104,500 \pm 18 \%$ | $12.4 \pm 86 \%$ | $16.2 \pm 30 \%$ |
| Montana | $2,600 \pm 161 \%$ | $12,000 \pm 41 \%$ | $200 \pm 87 \%$ | $1,700 \pm 46 \%$ | $500 \pm 120 \%$ | 2,900 $\pm 41 \%$ | $13.3 \pm 183 \%$ | $7.1 \pm 62 \%$ |
| Nebraska | $223,400 \pm 20 \%$ | 239,800 $\pm 24 \%$ | $13,200 \pm 17 \%$ | $13,500 \pm 15 \%$ | $39,000 \pm 17 \%$ | $39,300 \pm 19 \%$ | $16.9 \pm 26 \%$ | $17.7 \pm 28 \%$ |
| New Mexico | $160,100 \pm 17 \%$ | $123,000 \pm 15 \%$ | $9,000 \pm 11 \%$ | $6,500 \pm 10 \%$ | $38,000 \pm 17 \%$ | $23,700 \pm 13 \%$ | $17.8 \pm 20 \%$ | $18.9 \pm 18 \%$ |
| North Dakota | $78,900 \pm 37 \%$ | $88,200 \pm 37 \%$ | $4,900 \pm 30 \%$ | $6,300 \pm 29 \%$ | $17,400 \pm 36 \%$ | $16,400 \pm 28 \%$ | $16.0 \pm 48 \%$ | $14.1 \pm 47 \%$ |
| Oklahoma | $349,700 \pm 26 \%$ | $421,200 \pm 25 \%$ | $15,700 \pm 14 \%$ | $23,300 \pm 14 \%$ | $49,200 \pm 19 \%$ | $69,400 \pm 24 \%$ | $22.3 \pm 30 \%$ | $18.1 \pm 28 \%$ |
| South Dakota | $65,500 \pm 28 \%$ | $118,300 \pm 31 \%$ | $4,500 \pm 22 \%$ | 6,200 $\pm 22 \%$ | $14,700 \pm 28 \%$ | $17,500 \pm 26 \%$ | $14.4 \pm 36 \%$ | $19.0 \pm 38 \%$ |
| Texas | $4,150,800 \pm 20 \%$ | $3,506,700 \pm 18 \%$ | 207,200 $\pm 13 \%$ | $178,900 \pm 13 \%$ | $720,200 \pm 16 \%$ | $677,900 \pm 16 \%$ | $20.0 \pm 24 \%$ | $19.6 \pm 22 \%$ |
| Wyoming | $25,300 \pm 40 \%$ | $34,200 \pm 19 \%$ | 2,700 $\pm 32 \%$ | $3,100 \pm 17 \%$ | $6,300 \pm 38 \%$ | 7,200 $\pm 20 \%$ | $9.3 \pm 51 \%$ | $10.9 \pm 26 \%$ |
| Central Unit Total | $6,361,600 \pm 14 \%$ | $6,236,000 \pm 11 \%$ | 338,700 | 353,000 | $1,108,700 \pm 11 \%$ | 1,185,300 $\pm 10 \%$ |  |  |
| Arizona | $601,200 \pm 16 \%$ | $774,800 \pm 18 \%$ | $32,100 \pm 9 \%$ | $36,300 \pm 16 \%$ | $110,800 \pm 14 \%$ | $134,300 \pm 21 \%$ | $18.7 \pm 18 \%$ | $21.3 \pm 24 \%$ |
| California | $900,000 \pm 10 \%$ | $828,300 \pm 11 \%$ | 65,200 $\pm 7 \%$ | $63,600 \pm 8 \%$ | $192,200 \pm 10 \%$ | $163,200 \pm 9 \%$ | $13.8 \pm 12 \%$ | $13.0 \pm 13 \%$ |
| Idaho | $127,600 \pm 25 \%$ | $157,300 \pm 42 \%$ | 9,700 $\pm 22 \%$ | $13,300 \pm 21 \%$ | $32,200 \pm 35 \%$ | $39,100 \pm 32 \%$ | $13.1 \pm 33 \%$ | $11.9 \pm 47 \%$ |
| Nevada | $26,900 \pm 36 \%$ | $31,900 \pm 30 \%$ | $3,600 \pm 26 \%$ | $3,800 \pm 24 \%$ | 7,400 $\pm 26 \%$ | 9,900 $\pm 31 \%$ | $7.5 \pm 44 \%$ | $8.4 \pm 39 \%$ |
| Oregon | $64,100 \pm 32 \%$ | $28,400 \pm 43 \%$ | $12,000 \pm 19 \%$ | $3,400 \pm 35 \%$ | $28,900 \pm 24 \%$ | $10,500 \pm 43 \%$ | $5.3 \pm 38 \%$ | $8.3 \pm 55 \%$ |
| Utah | $78,000 \pm 43 \%$ | $80,200 \pm 80 \%$ | $13,200 \pm 22 \%$ | $16,000 \pm 33 \%$ | $30,800 \pm 31 \%$ | $31,200 \pm 45 \%$ | $5.9 \pm 48 \%$ | $5.0 \pm 87 \%$ |
| Washington | $51,500 \pm 30 \%$ | $42,500 \pm 41 \%$ | $4,900 \pm 26 \%$ | $4,800 \pm 29 \%$ | $11,300 \pm 27 \%$ | $11,500 \pm 43 \%$ | $10.6 \pm 40 \%$ | $8.8 \pm 50 \%$ |
| Western Unit Total | 1,849,400 $\pm 8 \%$ | 1,943,300 $\pm 10 \%$ | 140,700 | 141,200 | $413,700 \pm 7 \%$ | $399,800 \pm 9 \%$ |  |  |
| U.S. Total | $14,490,900 \pm 7 \%$ | $14,529,800 \pm 7 \%$ | 828,900 | 857,300 | 2,538,000 $\pm 6 \%$ | 2,572,900 $\pm 6 \%$ |  |  |

[^3]${ }^{3}$ No estimates available for the 2012 season.

Table 14. Preliminary estimates of white-winged dove harvest and hunter activity during the 2012 and 2013 hunting seasons ${ }^{1}$

| State and | White-winged Dove Harvest |  | Active Hunters ${ }^{2}$ |  | White-winged Dove Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Unit | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Alabama | 3,100 $\pm 72 \%$ | $4,900 \pm 67 \%$ | 1,500 $\pm 60 \%$ | 1,700 $\pm 66 \%$ | 5,100 $\pm 80 \%$ | $5,000 \pm 63 \%$ | $2.1 \pm 94 \%$ | $2.9 \pm 94 \%$ |
| Delaware | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Florida | $5,600 \pm 114 \%$ | 19,500 $\pm 50 \%$ | 1,900 $\pm 93 \%$ | $3,900 \pm 70 \%$ | 5,400 $\pm 101 \%$ | 14,500 $\pm 69 \%$ | $3.0 \pm 147 \%$ | $5.0 \pm 86 \%$ |
| Georgia | $8,700 \pm 149 \%$ | $4,300 \pm 187 \%$ | 1,300 $\pm 69 \%$ | 1,600 $\pm 172 \%$ | $5,500 \pm 93 \%$ | $4,300 \pm 187 \%$ | $6.9 \pm 164 \%$ | $2.7 \pm 253 \%$ |
| Louisiana | 6,600 $\pm 90 \%$ | 0 | 1,900 $\pm 92 \%$ | 0 | $12,900 \pm 116 \%$ | 0 | $3.5 \pm 129 \%$ | 0 |
| Maryland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mississippi | $500 \pm 142 \%$ | 1,700 $\pm 110 \%$ | $200 \pm 129 \%$ | $600 \pm 104 \%$ | $300 \pm 150 \%$ | 1,300 $\pm 93 \%$ | $2.6 \pm 192 \%$ | $2.9 \pm 151 \%$ |
| North Carolina | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pennsylvania | $100 \pm 194 \%$ | 0 | $100 \pm 137 \%$ | 0 | $500 \pm 137 \%$ | 0 | $0.5 \pm 238 \%$ | 0 |
| Rhode Island | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Carolina | 1,200 $\pm 138 \%$ | <50 $\pm 194 \%$ | 1,300 $\pm 127 \%$ | $600 \pm 183 \%$ | 1,600 $\pm 114 \%$ | 1,400 $\pm 160 \%$ | $0.9 \pm 188 \%$ | $0.1 \pm 266 \%$ |
| Virginia | $200 \pm 159 \%$ | $300 \pm 140 \%$ | $100 \pm 136 \%$ | $100 \pm 116 \%$ | $300 \pm 149 \%$ | $500 \pm 142 \%$ | $2.5 \pm 210 \%$ | $2.6 \pm 182 \%$ |
| Eastern Unit Total | 0 | $30,600 \pm 43 \%$ | 8,800 | 8,400 | $33,900 \pm 52 \%$ | 27,000 $\pm 50 \%$ |  |  |
| Colorado | $8,500 \pm 86 \%$ | 2,300 $\pm 73 \%$ | $2,400 \pm 65 \%$ | 1,700 $\pm 50 \%$ | $5,600 \pm 60 \%$ | $2,800 \pm 42 \%$ | $3.6 \pm 107 \%$ | $1.3 \pm 89 \%$ |
| Kansas | 0 | 2,600 $\pm 93 \%$ | 0 | 1,600 $\pm 69 \%$ | 0 | $4,300 \pm 80 \%$ | 0 | $1.6 \pm 115 \%$ |
| New Mexico | $79,500 \pm 28 \%$ | $33,800 \pm 20 \%$ | $4,800 \pm 15 \%$ | $3,100 \pm 14 \%$ | $24,400 \pm 22 \%$ | $13,100 \pm 19 \%$ | $16.6 \pm 32 \%$ | $10.8 \pm 24 \%$ |
| Oklahoma | $3,600 \pm 66 \%$ | $5,300 \pm 86 \%$ | $900 \pm 58 \%$ | $3,900 \pm 45 \%$ | $3,600 \pm 57 \%$ | $11,400 \pm 61 \%$ | $4.1 \pm 88 \%$ | $1.4 \pm 97 \%$ |
| Texas | $1,414,800 \pm 32 \%$ | 1,299,700 $\pm 28 \%$ | 108,100 $\pm 19 \%$ | $93,800 \pm 19 \%$ | $423,300 \pm 24 \%$ | $360,000 \pm 22 \%$ | $13.1 \pm 37 \%$ | $13.8 \pm 34 \%$ |
| Central Unit Total | $1,508,500 \pm 30 \%$ | $1,343,700 \pm 28 \%$ | 117,000 | 104,300 | 460,600 | $391,500 \pm 21 \%$ |  |  |
| Arizona | $86,000 \pm 22 \%$ | 100,000 $\pm 35 \%$ | $14,600 \pm 15 \%$ | $18,400 \pm 26 \%$ | $47,400 \pm 16 \%$ | $60,500 \pm 27 \%$ | $5.9 \pm 27 \%$ | $5.4 \pm 43 \%$ |
| California | $42,200 \pm 31 \%$ | $48,900 \pm 33 \%$ | $11,000 \pm 22 \%$ | $12,700 \pm 22 \%$ | $33,100 \pm 29 \%$ | $31,800 \pm 24 \%$ | $3.8 \pm 38 \%$ | $3.8 \pm 40 \%$ |
| Nevada | $200 \pm 85 \%$ | $3,300 \pm 111 \%$ | $300 \pm 98 \%$ | $600 \pm 78 \%$ | $500 \pm 75 \%$ | $2,500 \pm 108 \%$ | $0.8 \pm 130 \%$ | $6.0 \pm 135 \%$ |
| Utah | $500 \pm 110 \%$ | 0 | $100 \pm 79 \%$ | 1,100 $\pm 181 \%$ | $200 \pm 95 \%$ | 1,100 $\pm 181 \%$ | $4.4 \pm 136 \%$ | 0 |
| Western Unit Total | $130,300 \pm 18 \%$ | 152,200 $\pm 25 \%$ | 26,400 | 32,800 | $82,500 \pm 15 \%$ | $95,900 \pm 19 \%$ |  |  |
| U.S. Total | 1,669,000 $\pm 27 \%$ | 1,526,500 $\pm 24 \%$ | 152,200 | 145,500 | $577,000 \pm 18 \%$ | $514,400 \pm 16 \%$ |  |  |

${ }^{1}$ Variance estimates presented as $95 \%$ confidence interval as 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 2012 and 2013 hunting seasons ${ }^{1}$.

| State and | Band-tailed Pigeon Harvest |  | Active Hunters ${ }^{2}$ |  | Band-tailed Pigeon Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Unit | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Arizona | 1,300 $\pm 75 \%$ | $900 \pm 125 \%$ | 1,100 $\pm 57 \%$ | $400 \pm 137 \%$ | 4,800 $\pm 79 \%$ | $800 \pm 126 \%$ | $1.2 \pm 95 \%$ | $2.3 \pm 185 \%$ |
| Colorado | 1,100 $\pm 61 \%$ | $<50 \pm 140 \%$ | $300 \pm 39 \%$ | $200 \pm 39 \%$ | 1,300 $\pm 66 \%$ | $500 \pm 48 \%$ | $3.8 \pm 73 \%$ | $0.2 \pm 145 \%$ |
| New Mexico | $300 \pm 38 \%$ | $200 \pm 30 \%$ | $100 \pm 18 \%$ | $100 \pm 16 \%$ | $500 \pm 27 \%$ | $400 \pm 26 \%$ | $2.3 \pm 42 \%$ | $1.7 \pm 34 \%$ |
| Utah | $100 \pm 143 \%$ | $500 \pm 196 \%$ | $100 \pm 93 \%$ | $300 \pm 196 \%$ | $200 \pm 99 \%$ | $300 \pm 196 \%$ | $0.8 \pm 170 \%$ | $2.0 \pm 277 \%$ |
| Interior Total | $2,800 \pm 43 \%$ | 1,600 $\pm 92 \%$ | 1,600 | 1,000 | 6,800 $\pm 57 \%$ | $2,000 \pm 60 \%$ |  |  |
| California | 9,100 $\pm 44 \%$ | $4,700 \pm 50 \%$ | $3,300 \pm 38 \%$ | $2,700 \pm 46 \%$ | 8,200 $\pm 50 \%$ | $4,600 \pm 42 \%$ | $2.8 \pm 58 \%$ | $1.7 \pm 68 \%$ |
| Oregon | 1,500 $\pm 29 \%$ | 1,600 $\pm 40 \%$ | $500 \pm 15 \%$ | $400 \pm 19 \%$ | 1,200 $\pm 22 \%$ | 1,200 $\pm 29 \%$ | $3.1 \pm 32 \%$ | $3.8 \pm 45 \%$ |
| Washington | $200 \pm 76 \%$ | $500 \pm 166 \%$ | $100 \pm 28 \%$ | $100 \pm 0 \%$ | $400 \pm 71 \%$ | $400 \pm 107 \%$ | $2.1 \pm 81 \%$ | $3.6 \pm 166 \%$ |
| Pacific Coast Total | 10,900 $\pm 37 \%$ | $6,700 \pm 38 \%$ | 3,900 | 3,300 | 9,800 $\pm 42 \%$ | $6,200 \pm 33 \%$ |  |  |
| U.S. Total | $13,700 \pm 31 \%$ | $8,300 \pm 35 \%$ | 5,500 | 4,300 | $16,600 \pm 34 \%$ | $8,200 \pm 29 \%$ |  |  |

[^4]Table 16. Preliminary estimates of woodcock harvest and hunter activity during the 2012 and 2013 hunting seasons ${ }^{1}$.

| State and | Woodcock Harvest |  | Active Hunters ${ }^{2}$ |  | Woodcock Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Region | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Connecticut | 1,700 $\pm 38 \%$ | 1,200 $\pm 52 \%$ | $700 \pm 24 \%$ | $800 \pm 31 \%$ | 3,800 $\pm 29 \%$ | 3,600 $\pm 33 \%$ | $2.5 \pm 44 \%$ | $1.5 \pm 61 \%$ |
| Delaware | $800 \pm 121 \%$ | $200 \pm 103 \%$ | $300 \pm 80 \%$ | $<50 \pm 93 \%$ | 1,000 $\pm 90 \%$ | $200 \pm 109 \%$ | $2.7 \pm 145 \%$ | $4.3 \pm 139 \%$ |
| Florida | $12,600 \pm 187 \%$ | $1,000 \pm 148 \%$ | $4,900 \pm 134 \%$ | 1,800 $\pm 184 \%$ | $14,800 \pm 134 \%$ | $3,800 \pm 119 \%$ | $2.6 \pm 230 \%$ | $0.6 \pm 236 \%$ |
| Georgia | $800 \pm 80 \%$ | $800 \pm 97 \%$ | 1,500 $\pm 145 \%$ | $800 \pm 79 \%$ | $5,700 \pm 151 \%$ | 2,500 $\pm 89 \%$ | $0.5 \pm 166 \%$ | $1.0 \pm 126 \%$ |
| Maine | 9,600 $\pm 56 \%$ | $5,800 \pm 43 \%$ | $3,400 \pm 41 \%$ | 2,200 $\pm 46 \%$ | $16,100 \pm 58 \%$ | 8,800 $\pm 35 \%$ | $2.9 \pm 70 \%$ | $2.6 \pm 63 \%$ |
| Maryland | $2,400 \pm 153 \%$ | 1,900 $\pm 107 \%$ | $1,300 \pm 86 \%$ | 1,200 $\pm 96 \%$ | 2,200 $\pm 95 \%$ | 2,000 $\pm 81 \%$ | $1.8 \pm 176 \%$ | $1.6 \pm 143 \%$ |
| Massachussetts | 1,900 $\pm 27 \%$ | 2,400 $\pm 44 \%$ | $800 \pm 26 \%$ | $900 \pm 39 \%$ | $4,200 \pm 22 \%$ | $4,800 \pm 34 \%$ | $2.3 \pm 37 \%$ | $2.6 \pm 59 \%$ |
| New Hampshire | $3,800 \pm 29 \%$ | 8,000 $\pm 29 \%$ | 1,100 $\pm 36 \%$ | 2,600 $\pm 29 \%$ | 6,900 $\pm 31 \%$ | $13,000 \pm 25 \%$ | $3.4 \pm 46 \%$ | $3.0 \pm 41 \%$ |
| New Jersey | $3,100 \pm 65 \%$ | 7,400 $\pm 71 \%$ | 1,200 $\pm 59 \%$ | 2,000 $\pm 37 \%$ | $5,800 \pm 65 \%$ | $11,000 \pm 48 \%$ | $2.6 \pm 88 \%$ | $3.7 \pm 80 \%$ |
| New York | $8,400 \pm 33 \%$ | $11,700 \pm 38 \%$ | $4,800 \pm 36 \%$ | $3,900 \pm 31 \%$ | 22,900 $\pm 50 \%$ | 15,300 $\pm 29 \%$ | $1.7 \pm 48 \%$ | $3.0 \pm 49 \%$ |
| North Carolina | $13,400 \pm 168 \%$ | 1,400 $\pm 95 \%$ | 1,000 $\pm 69 \%$ | $1,900 \pm 134 \%$ | $8,200 \pm 114 \%$ | $8,200 \pm 106 \%$ | $14.0 \pm 181 \%$ | $0.7 \pm 164 \%$ |
| Pennsylvania | $13,500 \pm 68 \%$ | $8,200 \pm 42 \%$ | 6,900 $\pm 33 \%$ | $6,400 \pm 37 \%$ | 28,500 $\pm 39 \%$ | $29,600 \pm 41 \%$ | $2.0 \pm 75 \%$ | $1.3 \pm 56 \%$ |
| Rhode Island | $300 \pm 91 \%$ | $300 \pm 58 \%$ | $100 \pm 98 \%$ | $100 \pm 27 \%$ | $1,200 \pm 137 \%$ | $400 \pm 40 \%$ | $2.3 \pm 134 \%$ | $4.0 \pm 64 \%$ |
| South Carolina | $7,900 \pm 128 \%$ | $2,100 \pm 177 \%$ | $2,500 \pm 129 \%$ | $3,000 \pm 109 \%$ | $5,500 \pm 115 \%$ | $13,000 \pm 127 \%$ | $3.2 \pm 182 \%$ | $0.7 \pm 208 \%$ |
| Vermont | $3,000 \pm 62 \%$ | $4,100 \pm 39 \%$ | $700 \pm 51 \%$ | 1,400 $\pm 34 \%$ | 5,100 $\pm 45 \%$ | 8,600 $\pm 56 \%$ | $4.1 \pm 80 \%$ | $3.0 \pm 51 \%$ |
| Virginia | 1,200 $\pm 42 \%$ | $5,700 \pm 80 \%$ | $600 \pm 101 \%$ | 2,200 $\pm 65 \%$ | 2,600 $\pm 90 \%$ | $11,300 \pm 112 \%$ | $2.0 \pm 109 \%$ | $2.5 \pm 103 \%$ |
| West Virginia | 2,000 $\pm 46 \%$ | $300 \pm 58 \%$ | $700 \pm 32 \%$ | $200 \pm 92 \%$ | $3,200 \pm 44 \%$ | $600 \pm 60 \%$ | $2.8 \pm 56 \%$ | $1.6 \pm 109 \%$ |
| Eastern Region Total | $86,400 \pm 42 \%$ | $62,500 \pm 17 \%$ | 32,500 | 31,400 | $137,800 \pm 23 \%$ | $136,700 \pm 20 \%$ |  |  |
| Alabama | $3,500 \pm 136 \%$ | $1,400 \pm 129 \%$ | 2,300 $\pm 131 \%$ | 1,000 $\pm 175 \%$ | $4,900 \pm 139 \%$ | 1,500 $\pm 121 \%$ | $1.5 \pm 189 \%$ | $1.4 \pm 217 \%$ |
| Arkansas | $4,200 \pm 194 \%$ | $100 \pm 195 \%$ | 1,100 $\pm 180 \%$ | $100 \pm 137 \%$ | $3,200 \pm 190 \%$ | $300 \pm 140 \%$ | $3.7 \pm 265 \%$ | $0.5 \pm 238 \%$ |
| Illinois | $1,900 \pm 160 \%$ | $1,000 \pm 142 \%$ | $900 \pm 175 \%$ | $1,600 \pm 128 \%$ | $3,500 \pm 172 \%$ | $3,400 \pm 119 \%$ | $2.2 \pm 237 \%$ | $0.7 \pm 191 \%$ |
| Indiana | $600 \pm 84 \%$ | 1,400 $\pm 84 \%$ | $400 \pm 119 \%$ | $700 \pm 77 \%$ | $1,500 \pm 122 \%$ | 1,600 $\pm 58 \%$ | $1.5 \pm 146 \%$ | $2.0 \pm 114 \%$ |
| Iowa | 0 | $4,200 \pm 80 \%$ | $900 \pm 149 \%$ | 1,800 $\pm 85 \%$ | $4,400 \pm 161 \%$ | $8,300 \pm 118 \%$ | 0 | $2.3 \pm 117 \%$ |
| Kansas | 1,300 $\pm 139 \%$ | $<50 \pm 183 \%$ | 1,300 $\pm 86 \%$ | $400 \pm 192 \%$ | $5,100 \pm 101 \%$ | $1,100 \pm 193 \%$ | $1.0 \pm 163 \%$ | $<0.1 \pm 265 \%$ |
| Kentucky | $200 \pm 159 \%$ | $2,800 \pm 196 \%$ | $<50 \pm 121 \%$ | 1,000 $\pm 193 \%$ | $300 \pm 135 \%$ | 1,900 $\pm 194 \%$ | $11.5 \pm 200 \%$ | $3.0 \pm 275 \%$ |
| Louisiana | $20,000 \pm 115 \%$ | $7,400 \pm 169 \%$ | $4,800 \pm 67 \%$ | $2,500 \pm 165 \%$ | $11,000 \pm 74 \%$ | $2,500 \pm 165 \%$ | $4.1 \pm 133 \%$ | $2.9 \pm 236 \%$ |
| Michigan | $74,100 \pm 28 \%$ | $79,300 \pm 28 \%$ | $25,700 \pm 17 \%$ | $30,000 \pm 19 \%$ | $121,400 \pm 22 \%$ | $123,700 \pm 24 \%$ | $2.9 \pm 33 \%$ | $2.6 \pm 34 \%$ |
| Minnesota | $31,000 \pm 59 \%$ | 18,600 $\pm 57 \%$ | $11,200 \pm 36 \%$ | 10,900 $\pm 37 \%$ | $40,400 \pm 34 \%$ | $74,700 \pm 62 \%$ | $2.8 \pm 70 \%$ | $1.7 \pm 68 \%$ |
| Mississippi | $200 \pm 117 \%$ | $2,600 \pm 164 \%$ | $100 \pm 65 \%$ | 1,200 $\pm 127 \%$ | $200 \pm 79 \%$ | 2,600 $\pm 131 \%$ | $2.5 \pm 134 \%$ | $2.2 \pm 207 \%$ |
| Missouri | $900 \pm 110 \%$ | $7,700 \pm 176 \%$ | 1,300 $\pm 162 \%$ | 2,900 $\pm 91 \%$ | $2,000 \pm 112 \%$ | $8,500 \pm 117 \%$ | $0.7 \pm 196 \%$ | $2.6 \pm 198 \%$ |
| Nebraska | $1,300 \pm 196 \%$ | 0 | $600 \pm 196 \%$ | $600 \pm 196 \%$ | $4,500 \pm 196 \%$ | $600 \pm 196 \%$ | $2.0 \pm 277 \%$ | 0 |
| Ohio | 1,500 $\pm 80 \%$ | $8,600 \pm 85 \%$ | $600 \pm 115 \%$ | $3,000 \pm 63 \%$ | 2,600 $\pm 83 \%$ | $8,600 \pm 64 \%$ | $2.5 \pm 140 \%$ | $2.9 \pm 106 \%$ |
| Oklahoma | $600 \pm 187 \%$ | $300 \pm 129 \%$ | 1,100 $\pm 136 \%$ | $<50 \pm 68 \%$ | $3,400 \pm 144 \%$ | $200 \pm 121 \%$ | $0.5 \pm 231 \%$ | $8.4 \pm 146 \%$ |
| Tennessee | $1,500 \pm 115 \%$ | $1,300 \pm 185 \%$ | $100 \pm 94 \%$ | 1,200 $\pm 192 \%$ | $700 \pm 103 \%$ | $1,300 \pm 179 \%$ | $16.8 \pm 149 \%$ | $1.0 \pm 267 \%$ |
| Texas | 9,900 $\pm 192 \%$ | $5,500 \pm 174 \%$ | $4,900 \pm 195 \%$ | $4,900 \pm 194 \%$ | $9,800 \pm 195 \%$ | $5,200 \pm 182 \%$ | $2.0 \pm 273 \%$ | $1.1 \pm 260 \%$ |
| Wisconsin | $40,400 \pm 37 \%$ | $38,400 \pm 24 \%$ | $13,700 \pm 28 \%$ | 14,500 $\pm 27 \%$ | $58,000 \pm 33 \%$ | $60,000 \pm 31 \%$ | $3.0 \pm 47 \%$ | $2.6 \pm 36 \%$ |
| Central Region Total | $193,000 \pm 23 \%$ | 180,600 $\pm 20 \%$ | 71,200 | 78,400 | $276,900 \pm 16 \%$ | $306,100 \pm 20 \%$ |  |  |
| U.S. Total | 279,500 $\pm 21 \%$ | $243,100 \pm 15 \%$ | 103,700 | 109,800 | $414,700 \pm 13 \%$ | $442,800 \pm 15 \%$ |  |  |

${ }^{1}$ Variance estimates presented as $95 \%$ confidence interval as percent of the point estimate.
${ }^{\text {}}$ 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 2012 and 2013 hunting seasons ${ }^{1}$.

| State and | Snipe Harvest |  | Active Hunters ${ }^{2}$ |  | Snipe Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Unit | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Connecticut | $200 \pm 193 \%$ | <50 $\pm 176 \%$ | $100 \pm 136 \%$ | $100 \pm 168 \%$ | $300 \pm 152 \%$ | $300 \pm 180 \%$ | $3.0 \pm 236 \%$ | $0.4 \pm 243 \%$ |
| Delaware | 0 | $100 \pm 112 \%$ | $100 \pm 142 \%$ | $<50 \pm 68 \%$ | $100 \pm 113 \%$ | $400 \pm 82 \%$ | 0.0 | $1.4 \pm 131 \%$ |
| Florida | 10,600 $\pm 70 \%$ | 26,100 $\pm 66 \%$ | $3,700 \pm 69 \%$ | $3,400 \pm 80 \%$ | $6,700 \pm 60 \%$ | $8,200 \pm 55 \%$ | $2.9 \pm 98 \%$ | $7.6 \pm 104 \%$ |
| Georgia | $300 \pm 128 \%$ | 0 | $100 \pm 110 \%$ | 0 | $400 \pm 115 \%$ | 0 | $5.0 \pm 169 \%$ | 0.0 |
| Maine | $100 \pm 118 \%$ | $<50 \pm 193 \%$ | <50 $\pm 83 \%$ | $<50 \pm 193 \%$ | $100 \pm 107 \%$ | $<50 \pm 193 \%$ | $1.6 \pm 144 \%$ | $1.0 \pm 272 \%$ |
| Maryland | 1,300 $\pm 93 \%$ | $100 \pm 138 \%$ | $300 \pm 46 \%$ | $100 \pm 109 \%$ | 1,100 $\pm 64 \%$ | $400 \pm 128 \%$ | $4.1 \pm 104 \%$ | $2.7 \pm 176 \%$ |
| Massachusetts | $<50 \pm 146 \%$ | $100 \pm 87 \%$ | $100 \pm 85 \%$ | $200 \pm 67 \%$ | $400 \pm 106 \%$ | $600 \pm 81 \%$ | $0.3 \pm 169 \%$ | $0.6 \pm 110 \%$ |
| New Hampshire | $600 \pm 195 \%$ | $<50 \pm 186 \%$ | $100 \pm 195 \%$ | $<50 \pm 186 \%$ | $900 \pm 195 \%$ | $<50 \pm 186 \%$ | $8.0 \pm 275 \%$ | $1.0 \pm 263 \%$ |
| New Jersey | $700 \pm 140 \%$ | 0 | $200 \pm 112 \%$ | $<50 \pm 185 \%$ | $600 \pm 138 \%$ | $<50 \pm 185 \%$ | $3.3 \pm 179 \%$ | 0.0 |
| New York | $200 \pm 117 \%$ | $100 \pm 135 \%$ | $100 \pm 95 \%$ | $100 \pm 110 \%$ | $400 \pm 108 \%$ | $200 \pm 114 \%$ | $2.3 \pm 151 \%$ | $0.7 \pm 175 \%$ |
| North Carolina | $800 \pm 196 \%$ | 1,200 $\pm 196 \%$ | $800 \pm 138 \%$ | $400 \pm 196 \%$ | 1,500 $\pm 138 \%$ | 1,600 $\pm 196 \%$ | $1.0 \pm 239 \%$ | $3.0 \pm 277 \%$ |
| Pennsylvania | $100 \pm 192 \%$ | 0 | $<50 \pm 192 \%$ | 0 | $100 \pm 192 \%$ | 0 | $4.0 \pm 271 \%$ | 0.0 |
| Rhode Island | $<50 \pm 188 \%$ | 0 | $<50 \pm 188 \%$ | 0 | $<50 \pm 188 \%$ | 0 | $2.0 \pm 265 \%$ | 0.0 |
| South Carolina | 9,500 $\pm 145 \%$ | 3,500 $\pm 112 \%$ | $2,000 \pm 108 \%$ | $700 \pm 167 \%$ | $3,400 \pm 124 \%$ | $1,600 \pm 151 \%$ | $4.6 \pm 181 \%$ | $5.0 \pm 201 \%$ |
| Vermont | $400 \pm 195 \%$ | $<50 \pm 127 \%$ | $100 \pm 132 \%$ | $200 \pm 180 \%$ | 2,000 $\pm 184 \%$ | $400 \pm 175 \%$ | $2.9 \pm 235 \%$ | $0.2 \pm 220 \%$ |
| Virginia | 1,000 $\pm 184 \%$ | 1,700 $\pm 158 \%$ | $200 \pm 175 \%$ | $300 \pm 149 \%$ | $900 \pm 140 \%$ | 1,500 $\pm 131 \%$ | $6.0 \pm 254 \%$ | $6.6 \pm 218 \%$ |
| West Virginia | $<50 \pm 174 \%$ | 0 | $<50 \pm 174 \%$ | $<50 \pm 186 \%$ | $<50 \pm 174 \%$ | $<50 \pm 186 \%$ | $5.0 \pm 245 \%$ | 0.0 |
| Atlantic Flyway Total | 25,700 $\pm 62 \%$ | $33,000 \pm 54 \%$ | 7,900 | 5,500 | 18,900 $\pm 41 \%$ | 15,200 $\pm 42 \%$ |  |  |
| Alabama | 1,800 $\pm 96 \%$ | 1,300 $\pm 162 \%$ | $100 \pm 82 \%$ | 2,800 $\pm 132 \%$ | $700 \pm 102 \%$ | $3,200 \pm 118 \%$ | $13.6 \pm 127 \%$ | $0.5 \pm 209 \%$ |
| Arkansas | 0 | 3,300 $\pm 196 \%$ | 0 | 1,600 $\pm 196 \%$ | 0 | 1,600 $\pm 196 \%$ | 0.0 | $2.0 \pm 277 \%$ |
| Illinois | $100 \pm 194 \%$ | 0 | <50 $\pm 194 \%$ | 0 | $<50 \pm 194 \%$ | 0 | $2.0 \pm 274 \%$ | 0.0 |
| Indiana | $3,700 \pm 125 \%$ | $200 \pm 59 \%$ | 1,000 $\pm 128 \%$ | $100 \pm 36 \%$ | $4,400 \pm 168 \%$ | $300 \pm 48 \%$ | $3.6 \pm 179 \%$ | $2.8 \pm 69 \%$ |
| Iowa | 1,100 $\pm 134 \%$ | $600 \pm 171 \%$ | $100 \pm 95 \%$ | 1,100 $\pm 132 \%$ | $300 \pm 123 \%$ | $2,500 \pm 134 \%$ | $14.3 \pm 164 \%$ | $0.6 \pm 216 \%$ |
| Kentucky | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Louisiana | $7,400 \pm 87 \%$ | 5,000 $\pm 127 \%$ | 3,000 $\pm 79 \%$ | 1,000 $\pm 138 \%$ | 8,500 $\pm 99 \%$ | $2,600 \pm 109 \%$ | $2.5 \pm 118 \%$ | $5.1 \pm 187 \%$ |
| Michigan | $500 \pm 195 \%$ | 2,500 $\pm 147 \%$ | $200 \pm 137 \%$ | $2,100 \pm 160 \%$ | $900 \pm 139 \%$ | 18,300 $\pm 183 \%$ | $3.0 \pm 238 \%$ | $1.2 \pm 217 \%$ |
| Minnesota | $2,800 \pm 126 \%$ | $5,200 \pm 95 \%$ | 2,400 $\pm 89 \%$ | 2,800 $\pm 88 \%$ | $4,000 \pm 87 \%$ | 6,100 $\pm 92 \%$ | $1.2 \pm 155 \%$ | $1.9 \pm 129 \%$ |
| Mississippi | 0 | 0 | $600 \pm 196 \%$ | 0 | $600 \pm 196 \%$ | 0 | 0.0 | 0.0 |
| Missouri | $800 \pm 196 \%$ | 0 | 1,600 $\pm 138 \%$ | 0 | 1,600 $\pm 138 \%$ | 0 | $0.5 \pm 239 \%$ | 0.0 |
| Ohio | 0 | 0 | $100 \pm 194 \%$ | 0 | $100 \pm 194 \%$ | 0 | 0.0 | 0.0 |
| Tennessee | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Wisconsin | 1,100 $\pm 172 \%$ | $3,000 \pm 163 \%$ | 1,100 $\pm 176 \%$ | 1,400 $\pm 175 \%$ | 1,300 $\pm 148 \%$ | 11,400 $\pm 171 \%$ | $1.0 \pm 246 \%$ | $2.2 \pm 239 \%$ |
| Mississippi Flyway Total | 19,400 $\pm 48 \%$ | 21,200 $\pm 58 \%$ | 10,200 | 13,000 | 22,500 $\pm 54 \%$ | $46,000 \pm 86 \%$ |  |  |

[^5]Table 17 (continued). Preliminary estimates of snipe harvest and hunter activity during the 2012 and 2013 hunting seasons ${ }^{1}$.

| State and <br> Management Unit | Snipe Harvest |  | Active Hunters ${ }^{2}$ |  | Snipe Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Colorado | $400 \pm 195 \%$ | 0 | $100 \pm 135 \%$ | 0 | $600 \pm 143 \%$ | 0 | $2.5 \pm 237 \%$ | 0.0 |
| Kansas | $100 \pm 164 \%$ | $<50 \pm 131 \%$ | $<50 \pm 115 \%$ | $<50 \pm 124 \%$ | $<50 \pm 139 \%$ | $<50 \pm 139 \%$ | $15.0 \pm 201 \%$ | $1.5 \pm 180 \%$ |
| Nebraska | 0 | $500 \pm 196 \%$ | $400 \pm 196 \%$ | $500 \pm 196 \%$ | $400 \pm 196 \%$ | $500 \pm 196 \%$ | 0.0 | $1.0 \pm 277 \%$ |
| New Mexico | 0 | $400 \pm 194 \%$ | 0 | $200 \pm 192 \%$ | 0 | $400 \pm 194 \%$ | 0.0 | $2.0 \pm 273 \%$ |
| North Dakota | $200 \pm 71 \%$ | $200 \pm 56 \%$ | $500 \pm 173 \%$ | $600 \pm 161 \%$ | 1,000 $\pm 156 \%$ | 1,800 $\pm 164 \%$ | $0.5 \pm 187 \%$ | $0.3 \pm 170 \%$ |
| Oklahoma | $4,000 \pm 157 \%$ | $500 \pm 131 \%$ | 1,100 $\pm 133 \%$ | $900 \pm 179 \%$ | $6,100 \pm 169 \%$ | 2,600 $\pm 181 \%$ | $3.7 \pm 206 \%$ | $0.5 \pm 222 \%$ |
| South Dakota | $100 \pm 67 \%$ | $100 \pm 126 \%$ | $300 \pm 169 \%$ | $<50 \pm 101 \%$ | $1,000 \pm 182 \%$ | $100 \pm 109 \%$ | $0.5 \pm 182 \%$ | $4.0 \pm 161 \%$ |
| Texas | $800 \pm 135 \%$ | $200 \pm 137 \%$ | 2,800 $\pm 188 \%$ | $100 \pm 133 \%$ | $5,800 \pm 181 \%$ | $100 \pm 141 \%$ | $0.3 \pm 231 \%$ | $4.0 \pm 191 \%$ |
| Wyoming | $600 \pm 87 \%$ | $100 \pm 84 \%$ | $300 \pm 70 \%$ | $<50 \pm 53 \%$ | $600 \pm 78 \%$ | $100 \pm 62 \%$ | $1.9 \pm 112 \%$ | $2.9 \pm 99 \%$ |
| Central Flyway Total | 6,100 $\pm 105 \%$ | $1,900 \pm 72 \%$ | 5,500 | 2,300 | 15,700 $\pm 96 \%$ | $5,600 \pm 103 \%$ |  |  |
| Arizona | 0 | $100 \pm 189 \%$ | $<50 \pm 133 \%$ | $<50 \pm 134 \%$ | $100 \pm 141 \%$ | $300 \pm 180 \%$ | 0.0 | $3.5 \pm 232 \%$ |
| California | 6,300 $\pm 145 \%$ | 2,400 $\pm 77 \%$ | 2,200 $\pm 77 \%$ | $700 \pm 133 \%$ | 4,500 $\pm 92 \%$ | 1,400 $\pm 77 \%$ | $2.9 \pm 164 \%$ | $3.3 \pm 154 \%$ |
| Idaho | $900 \pm 160 \%$ | 7,900 $\pm 188 \%$ | $700 \pm 127 \%$ | $800 \pm 185 \%$ | 1,400 $\pm 132 \%$ | $3,900 \pm 140 \%$ | $1.2 \pm 204 \%$ | $9.8 \pm 264 \%$ |
| Montana | $100 \pm 186 \%$ | $300 \pm 141 \%$ | $<50 \pm 186 \%$ | $100 \pm 72 \%$ | $<50 \pm 186 \%$ | $200 \pm 83 \%$ | $5.0 \pm 264 \%$ | $3.7 \pm 158 \%$ |
| Nevada | $100 \pm 111 \%$ | $<50 \pm 102 \%$ | $100 \pm 158 \%$ | $100 \pm 171 \%$ | $200 \pm 105 \%$ | $100 \pm 171 \%$ | $0.6 \pm 193 \%$ | $0.2 \pm 199 \%$ |
| Oregon | $3,400 \pm 169 \%$ | $500 \pm 180 \%$ | 1,500 $\pm 92 \%$ | $800 \pm 126 \%$ | 5,200 $\pm 102 \%$ | 1,000 $\pm 107 \%$ | $2.2 \pm 192 \%$ | $0.6 \pm 220 \%$ |
| Utah | $200 \pm 160 \%$ | $700 \pm 112 \%$ | $100 \pm 111 \%$ | $300 \pm 96 \%$ | $500 \pm 146 \%$ | $900 \pm 151 \%$ | $1.7 \pm 195 \%$ | $2.5 \pm 148 \%$ |
| Washington | 2,200 $\pm 129 \%$ | $500 \pm 70 \%$ | 1,300 $\pm 112 \%$ | $200 \pm 35 \%$ | $4,900 \pm 147 \%$ | $800 \pm 86 \%$ | $1.7 \pm 171 \%$ | $3.1 \pm 78 \%$ |
| Pacific Flyway Total | 13,100 $\pm 86 \%$ | $12,400 \pm 122 \%$ | 6,100 | 3,000 | $16,900 \pm 60 \%$ | $8,600 \pm 69 \%$ |  |  |
| Alaska | $600 \pm 145 \%$ | $600 \pm 143 \%$ | $700 \pm 145 \%$ | 1,000 $\pm 121 \%$ | 1,300 $\pm 93 \%$ | 1,500 $\pm 127 \%$ | $0.8 \pm 205 \%$ | $0.6 \pm 188 \%$ |
| U.S. Total | $64,900 \pm 35 \%$ | $69,100 \pm 38 \%$ | 30,300 | 24,700 | $75,400 \pm 31 \%$ | $76,900 \pm 53 \%$ |  |  |

Variance estimates presented as $95 \%$ confidence interval as 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 2012 and 2013 hunting seasons ${ }^{1}$.

| State and | Coot Harvest |  | Active Hunters ${ }^{2}$ |  | Coot Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Unit | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Connecticut | $200 \pm 191 \%$ | 0 | $100 \pm 108 \%$ | $100 \pm 194 \%$ | $300 \pm 125 \%$ | $100 \pm 194 \%$ | $2.0 \pm 219 \%$ | 0.0 |
| Delaware | $100 \pm 125 \%$ | $100 \pm 125 \%$ | $<50 \pm 101 \%$ | $100 \pm 60 \%$ | $<50 \pm 116 \%$ | $300 \pm 91 \%$ | $6.0 \pm 160 \%$ | $1.7 \pm 139 \%$ |
| Florida | $1,400 \pm 121 \%$ | $2,800 \pm 144 \%$ | $200 \pm 85 \%$ | $200 \pm 137 \%$ | 1,000 $\pm 103 \%$ | $600 \pm 144 \%$ | $5.6 \pm 148 \%$ | $15.0 \pm 199 \%$ |
| Georgia | 1,700 $\pm 155 \%$ | $500 \pm 145 \%$ | 1,400 $\pm 176 \%$ | $200 \pm 137 \%$ | $1,800 \pm 145 \%$ | $400 \pm 160 \%$ | $1.2 \pm 234 \%$ | $3.0 \pm 200 \%$ |
| Maine | $<50 \pm 185 \%$ | 0 | $300 \pm 184 \%$ | $<50 \pm 193 \%$ | $1,000 \pm 186 \%$ | $<50 \pm 193 \%$ | $<0.1 \pm 261 \%$ | 0.0 |
| Maryland | $700 \pm 92 \%$ | $200 \pm 174 \%$ | $200 \pm 57 \%$ | $100 \pm 93 \%$ | 1,100 $\pm 82 \%$ | $400 \pm 122 \%$ | $3.7 \pm 108 \%$ | $2.8 \pm 197 \%$ |
| Massachusetts | $100 \pm 100 \%$ | $100 \pm 81 \%$ | $100 \pm 109 \%$ | $<50 \pm 70 \%$ | $100 \pm 109 \%$ | $100 \pm 76 \%$ | $1.1 \pm 148 \%$ | $1.3 \pm 107 \%$ |
| New Hampshire | $100 \pm 195 \%$ | $100 \pm 157 \%$ | $100 \pm 195 \%$ | $<50 \pm 124 \%$ | $900 \pm 195 \%$ | $100 \pm 124 \%$ | $2.0 \pm 275 \%$ | $6.5 \pm 200 \%$ |
| New Jersey | $600 \pm 106 \%$ | $100 \pm 158 \%$ | $200 \pm 108 \%$ | $100 \pm 167 \%$ | $300 \pm 112 \%$ | $300 \pm 131 \%$ | $2.6 \pm 151 \%$ | $1.0 \pm 230 \%$ |
| New York | $3,000 \pm 93 \%$ | $2,100 \pm 120 \%$ | $800 \pm 85 \%$ | 1,000 $\pm 92 \%$ | $2,800 \pm 126 \%$ | $4,200 \pm 117 \%$ | $3.7 \pm 126 \%$ | $2.2 \pm 151 \%$ |
| North Carolina | $400 \pm 196 \%$ | 11,700 $\pm 130 \%$ | $400 \pm 196 \%$ | $3,400 \pm 111 \%$ | $3,900 \pm 196 \%$ | 6,900 $\pm 122 \%$ | $1.0 \pm 277 \%$ | $3.4 \pm 171 \%$ |
| Pennsylvania | $<50 \pm 192 \%$ | 0 | $<50 \pm 192 \%$ | 0 | $100 \pm 192 \%$ | 0 | $1.0 \pm 271 \%$ | 0.0 |
| Rhode Island | $400 \pm 132 \%$ | 0 | $100 \pm 115 \%$ | 0 | $200 \pm 148 \%$ | 0 | $5.6 \pm 175 \%$ | 0.0 |
| South Carolina | $1,500 \pm 189 \%$ | 2,500 $\pm 192 \%$ | $100 \pm 133 \%$ | $600 \pm 190 \%$ | $500 \pm 183 \%$ | $2,800 \pm 173 \%$ | $29.0 \pm 231 \%$ | $4.0 \pm 270 \%$ |
| Vermont | $100 \pm 195 \%$ | $<50 \pm 176 \%$ | $100 \pm 195 \%$ | $200 \pm 190 \%$ | $100 \pm 195 \%$ | $400 \pm 185 \%$ | $1.0 \pm 275 \%$ | $0.1 \pm 259 \%$ |
| Virginia | $2,500 \pm 135 \%$ | $3,400 \pm 177 \%$ | $400 \pm 96 \%$ | $300 \pm 128 \%$ | 1,600 $\pm 57 \%$ | 1,500 $\pm 108 \%$ | $6.1 \pm 166 \%$ | $11.5 \pm 219 \%$ |
| West Virginia | $100 \pm 129 \%$ | 0 | $<50 \pm 122 \%$ | $<50 \pm 186 \%$ | $100 \pm 137 \%$ | $<50 \pm 186 \%$ | $7.5 \pm 177 \%$ | 0.0 |
| Atlantic Flyway Total | 12,800 $\pm 49 \%$ | 23,600 $\pm 75 \%$ | 4,500 | 6,300 | 15,700 $\pm 59 \%$ | 18,100 $\pm 61 \%$ |  |  |
| Alabama | 9,300 $\pm 153 \%$ | $300 \pm 116 \%$ | 1,300 $\pm 176 \%$ | $100 \pm 92 \%$ | 1,800 $\pm 134 \%$ | $100 \pm 92 \%$ | $7.0 \pm 234 \%$ | $2.3 \pm 148 \%$ |
| Arkansas | 0 | 1,600 $\pm 196 \%$ | $1,200 \pm 196 \%$ | 1,800 $\pm 177 \%$ | $3,700 \pm 196 \%$ | 1,800 $\pm 177 \%$ | 0.0 | $0.9 \pm 264 \%$ |
| Illinois | 1,400 $\pm 196 \%$ | $100 \pm 195 \%$ | $700 \pm 196 \%$ | 1,100 $\pm 181 \%$ | $700 \pm 196 \%$ | 10,300 $\pm 194 \%$ | $2.0 \pm 277 \%$ | $0.1 \pm 266 \%$ |
| Indiana | $400 \pm 75 \%$ | $4,600 \pm 185 \%$ | $100 \pm 47 \%$ | $600 \pm 168 \%$ | $300 \pm 71 \%$ | $3,100 \pm 183 \%$ | $4.6 \pm 89 \%$ | $8.2 \pm 250 \%$ |
| Iowa | 1,000 $\pm 181 \%$ | $500 \pm 52 \%$ | 1,000 $\pm 185 \%$ | $100 \pm 36 \%$ | 1,100 $\pm 175 \%$ | $500 \pm 59 \%$ | $1.0 \pm 259 \%$ | $3.4 \pm 63 \%$ |
| Kentucky | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Louisiana | 105,000 $\pm 76 \%$ | 151,700 $\pm 66 \%$ | 6,700 $\pm 53 \%$ | 5,100 $\pm 59 \%$ | 25,400 $\pm 64 \%$ | 24,600 $\pm 81 \%$ | $15.7 \pm 93 \%$ | $29.8 \pm 88 \%$ |
| Michigan | 17,500 $\pm 136 \%$ | 2,300 $\pm 196 \%$ | $4,700 \pm 83 \%$ | $400 \pm 134 \%$ | 14,600 $\pm 126 \%$ | 2,100 $\pm 145 \%$ | $3.7 \pm 160 \%$ | $5.5 \pm 237 \%$ |
| Minnesota | $7,400 \pm 187 \%$ | 7,300 $\pm 109 \%$ | $600 \pm 175 \%$ | 1,500 $\pm 113 \%$ | 1,800 $\pm 141 \%$ | 2,100 $\pm 93 \%$ | $12.1 \pm 256 \%$ | $4.7 \pm 157 \%$ |
| Mississippi | 0 | 1,400 $\pm 196 \%$ | 0 | $700 \pm 196 \%$ | 0 | 2,800 $\pm 196 \%$ | 0.0 | $2.0 \pm 277 \%$ |
| Missouri | 2,500 $\pm 196 \%$ | 2,900 $\pm 196 \%$ | $800 \pm 196 \%$ | $600 \pm 196 \%$ | $800 \pm 196 \%$ | 2,900 $\pm 196 \%$ | $3.0 \pm 277 \%$ | $5.0 \pm 277 \%$ |
| Ohio | 1,000 $\pm 106 \%$ | 5,200 $\pm 117 \%$ | $200 \pm 104 \%$ | 2,300 $\pm 129 \%$ | $3,100 \pm 130 \%$ | $4,000 \pm 121 \%$ | $5.3 \pm 149 \%$ | $2.2 \pm 174 \%$ |
| Tennessee | $4,600 \pm 142 \%$ | 0 | $3,100 \pm 188 \%$ | 0 | 6,300 $\pm 185 \%$ | 0 | $1.5 \pm 236 \%$ | 0.0 |
| Wisconsin | $500 \pm 107 \%$ | 8,700 $\pm 90 \%$ | 1,200 $\pm 168 \%$ | 1,600 $\pm 155 \%$ | 21,600 $\pm 188 \%$ | 12,600 $\pm 154 \%$ | $0.4 \pm 199 \%$ | $5.5 \pm 179 \%$ |
| Mississippi Flyway Total | 150,500 $\pm 57 \%$ | 186,500 $\pm 55 \%$ | 21,600 | 16,000 | 81,200 $\pm 61 \%$ | 66,900 $\pm 54 \%$ |  |  |

[^6]${ }^{2}$ 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 (continued). Preliminary estimates of coot harvest and hunter activity during the 2012 and 2013 hunting seasons ${ }^{1}$.

| State and | Coot Harvest |  | Active Hunters ${ }^{2}$ |  | Coot Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Unit | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Colorado | 2,200 $\pm 146 \%$ | 2,800 $\pm 137 \%$ | $700 \pm 125 \%$ | 1,300 $\pm 91 \%$ | 1,700 $\pm 126 \%$ | 6,500 $\pm 126 \%$ | $3.2 \pm 192 \%$ | $2.1 \pm 165 \%$ |
| Kansas | $1,200 \pm 130 \%$ | $1,000 \pm 196 \%$ | $700 \pm 137 \%$ | $500 \pm 196 \%$ | $800 \pm 130 \%$ | $500 \pm 196 \%$ | $1.7 \pm 188 \%$ | $2.0 \pm 277 \%$ |
| Nebraska | $1,600 \pm 196 \%$ | $1,400 \pm 196 \%$ | $400 \pm 196 \%$ | $500 \pm 196 \%$ | $800 \pm 196 \%$ | $500 \pm 196 \%$ | $4.0 \pm 277 \%$ | $3.0 \pm 277 \%$ |
| New Mexico | $200 \pm 196 \%$ | $100 \pm 110 \%$ | $200 \pm 196 \%$ | $<50 \pm 67 \%$ | $200 \pm 196 \%$ | <50 $\pm 84 \%$ | $1.0 \pm 277 \%$ | $2.8 \pm 129 \%$ |
| North Dakota | $3,600 \pm 132 \%$ | $1,900 \pm 106 \%$ | 1,000 $\pm 116 \%$ | $700 \pm 148 \%$ | $2,100 \pm 117 \%$ | 1,600 $\pm 129 \%$ | $3.8 \pm 176 \%$ | $2.9 \pm 182 \%$ |
| Oklahoma | $600 \pm 133 \%$ | $3,800 \pm 102 \%$ | $600 \pm 185 \%$ | 2,500 $\pm 109 \%$ | $1,000 \pm 114 \%$ | 5,000 $\pm 133 \%$ | $1.0 \pm 228 \%$ | $1.6 \pm 149 \%$ |
| South Dakota | $200 \pm 66 \%$ | $1,300 \pm 120 \%$ | $<50 \pm 48 \%$ | $700 \pm 133 \%$ | $200 \pm 89 \%$ | $1,100 \pm 138 \%$ | $5.6 \pm 81 \%$ | $1.8 \pm 179 \%$ |
| Texas | $100 \pm 193 \%$ | $600 \pm 133 \%$ | $<50 \pm 193 \%$ | $100 \pm 89 \%$ | $200 \pm 193 \%$ | $300 \pm 117 \%$ | $3.0 \pm 274 \%$ | $6.0 \pm 160 \%$ |
| Wyoming | 3,200 $\pm 134 \%$ | $600 \pm 120 \%$ | $400 \pm 65 \%$ | $100 \pm 108 \%$ | 1,800 $\pm 87 \%$ | $300 \pm 98 \%$ | $9.2 \pm 149 \%$ | $4.0 \pm 161 \%$ |
| Central Flyway Total | $12,900 \pm 62 \%$ | $13,500 \pm 52 \%$ | 3,900 | 6,400 | 8,800 $\pm 49 \%$ | $15,800 \pm 70 \%$ |  |  |
| Arizona | $<50 \pm 141 \%$ | $300 \pm 136 \%$ | $<50 \pm 133 \%$ | $100 \pm 94 \%$ | $100 \pm 149 \%$ | $500 \pm 160 \%$ | $1.5 \pm 194 \%$ | $5.0 \pm 165 \%$ |
| California | 12,700 $\pm 69 \%$ | $13,200 \pm 58 \%$ | $3,100 \pm 64 \%$ | 2,500 $\pm 77 \%$ | $6,800 \pm 62 \%$ | $4,600 \pm 49 \%$ | $4.1 \pm 94 \%$ | $5.3 \pm 97 \%$ |
| Idaho | $4,400 \pm 106 \%$ | 6,100 $\pm 194 \%$ | 1,700 $\pm 85 \%$ | $800 \pm 185 \%$ | $4,700 \pm 119 \%$ | $4,700 \pm 144 \%$ | $2.6 \pm 136 \%$ | $7.6 \pm 268 \%$ |
| Montana | $100 \pm 99 \%$ | $100 \pm 148 \%$ | $<50 \pm 88 \%$ | $<50 \pm 106 \%$ | $100 \pm 104 \%$ | $200 \pm 115 \%$ | $1.8 \pm 132 \%$ | $2.7 \pm 182 \%$ |
| Nevada | $900 \pm 73 \%$ | $700 \pm 80 \%$ | $300 \pm 93 \%$ | $200 \pm 106 \%$ | 1,800 $\pm 102 \%$ | $400 \pm 98 \%$ | $3.2 \pm 118 \%$ | $3.2 \pm 132 \%$ |
| Oregon | $1,600 \pm 108 \%$ | $800 \pm 117 \%$ | 1,600 $\pm 88 \%$ | $500 \pm 144 \%$ | 3,200 $\pm 118 \%$ | $800 \pm 108 \%$ | $1.0 \pm 139 \%$ | $1.6 \pm 185 \%$ |
| Utah | $7,800 \pm 61 \%$ | $6,400 \pm 80 \%$ | $1,800 \pm 49 \%$ | $1,500 \pm 61 \%$ | $5,600 \pm 52 \%$ | $2,600 \pm 63 \%$ | $4.2 \pm 78 \%$ | $4.4 \pm 100 \%$ |
| Washington | $4,900 \pm 162 \%$ | $3,700 \pm 76 \%$ | 1,800 $\pm 96 \%$ | $600 \pm 122 \%$ | 7,600 $\pm 113 \%$ | 2,100 $\pm 78 \%$ | $2.8 \pm 188 \%$ | $6.2 \pm 144 \%$ |
| Pacific Flyway Total | $32,500 \pm 42 \%$ | $31,300 \pm 49 \%$ | 10,400 | 6,200 | 29,800 $\pm 41 \%$ | 15,800 $\pm 48 \%$ |  |  |
| U.S. Total | $208,700 \pm 42 \%$ | $254,900 \pm 41 \%$ | 40,500 | 34,800 | 135,600 $\pm 39 \%$ | 116,700 $\pm 34 \%$ |  |  |

Variance estimates presented as $95 \%$ conficence interval as percent of the point estimate.
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 2012 and 2013 hunting seasons ${ }^{1}$.

| State and <br> Management Unit | Gallinule Harvest |  | Active Hunters ${ }^{2}$ |  | Gallinule Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Delaware | 0 | 0 | 0 | $<50 \pm 105 \%$ | 0 | $200 \pm 121 \%$ | 0.0 | 0.0 |
| Florida | $400 \pm 193 \%$ | 2,100 $\pm 195 \%$ | $<50 \pm 193 \%$ | $100 \pm 195 \%$ | $200 \pm 193 \%$ | $100 \pm 195 \%$ | $12.0 \pm 273 \%$ | $30.0 \pm 275 \%$ |
| Georgia | 0 | 0 | $<50 \pm 191 \%$ | 0 | $<50 \pm 191 \%$ | 0 | 0.0 | 0.0 |
| New Jersey | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| New York | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| North Carolina | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| South Carolina | $100 \pm 192 \%$ | $600 \pm 191 \%$ | $<50 \pm 192 \%$ | $<50 \pm 191 \%$ | <50 $\pm 192 \%$ | $200 \pm 191 \%$ | $3.0 \pm 271 \%$ | $30.0 \pm 270 \%$ |
| Virginia | $100 \pm 180 \%$ | $100 \pm 183 \%$ | $<50 \pm 180 \%$ | $<50 \pm 183 \%$ | $200 \pm 180 \%$ | $100 \pm 183 \%$ | $10.0 \pm 254 \%$ | $11.0 \pm 258 \%$ |
| West Virginia | 0 | 0 | 0 | $<50 \pm 186 \%$ | 0 | $<50 \pm 186 \%$ | 0.0 | 0.0 |
| Atlantic Flyway Total | $600 \pm 150 \%$ | $2,800 \pm 153 \%$ | 100 | 100 | $500 \pm 111 \%$ | $700 \pm 84 \%$ |  |  |
| Alabama | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Arkansas | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Kentucky | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Louisana | 14,300 $\pm 141 \%$ | 13,200 $\pm 110 \%$ | $900 \pm 125 \%$ | 1,300 $\pm 104 \%$ | $5,300 \pm 145 \%$ | $4,600 \pm 77 \%$ | $15.9 \pm 188 \%$ | $10.2 \pm 151 \%$ |
| Michigan | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Minnesota | 0 | $100 \pm 195 \%$ | 0 | $100 \pm 195 \%$ | 0 | $100 \pm 195 \%$ | 0.0 | $1.0 \pm 275 \%$ |
| Mississippi | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Ohio | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Tennessee | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Wisconsin | 0 | 2,100 $\pm 196 \%$ | < $50 \pm 192 \%$ | 1,100 $\pm 191 \%$ | $100 \pm 192 \%$ | 1,200 $\pm 179 \%$ | 0.0 | $2.0 \pm 274 \%$ |
| Mississippi Flyway Total | $14,300 \pm 141 \%$ | 15,400 $\pm 98 \%$ | 900 | 2,400 | $5,400 \pm 144 \%$ | $5,800 \pm 71 \%$ |  |  |
| New Mexico | 2,600 $\pm 196 \%$ | 0 | $200 \pm 196 \%$ | 0 | 1,200 $\pm 196 \%$ | 0 | $13.0 \pm 277 \%$ | 0.0 |
| Oklahoma | $200 \pm 184 \%$ | 0 | $400 \pm 192 \%$ | $800 \pm 196 \%$ | $500 \pm 148 \%$ | $800 \pm 196 \%$ | $0.4 \pm 266 \%$ | 0.0 |
| Texas | 0 | 2,800 $\pm 196 \%$ | 0 | 2,800 $\pm 196 \%$ | 0 | 2,800 $\pm 196 \%$ | 0.0 | $1.0 \pm 277 \%$ |
| Central Flyway Total | 2,800 $\pm 184 \%$ | $2,800 \pm 196 \%$ | 600 | 3,600 | 1,800 $\pm 142 \%$ | $3,600 \pm 160 \%$ | 0 |  |
| Arizona | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| California | 3,500 $\pm 193 \%$ | $200 \pm 121 \%$ | $300 \pm 186 \%$ | $<50 \pm 105 \%$ | 1,800 $\pm 191 \%$ | $200 \pm 123 \%$ | $11.5 \pm 268 \%$ | $8.3 \pm 161 \%$ |
| Nevada | $100 \pm 194 \%$ | $100 \pm 194 \%$ | $100 \pm 185 \%$ | $100 \pm 137 \%$ | $100 \pm 185 \%$ | $100 \pm 137 \%$ | $1.9 \pm 269 \%$ | $0.5 \pm 238 \%$ |
| Pacific Flyway Total | 5,200 $\pm 143 \%$ | $300 \pm 104 \%$ | 700 | 200 | $2,500 \pm 142 \%$ | $300 \pm 92 \%$ |  |  |
| U.S. Total | 22,900 $\pm 97 \%$ | 21,300 $\pm 78 \%$ | 2,300 | 6,300 | 10,200 $\pm 88 \%$ | 10,300 $\pm 68 \%$ |  |  |

[^7]${ }^{2}$ 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 2012 and 2013 hunting seasons ${ }^{1}$.

| State and | Rail Harvest |  | Active Hunters ${ }^{2}$ |  | Rail Days Afield |  | Seasonal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Unit | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Connecticut | 0 | <50 $\pm 173 \%$ | $<50 \pm 193 \%$ | $100 \pm 182 \%$ | $200 \pm 193 \%$ | $100 \pm 188 \%$ | 0.0 | $0.1 \pm 251 \%$ |
| Delaware | $<50 \pm 176 \%$ | 0 | $<50 \pm 176 \%$ | $<50 \pm 105 \%$ | $<50 \pm 176 \%$ | $200 \pm 121 \%$ | $4.0 \pm 249 \%$ | 0.0 |
| Florida | $600 \pm 193 \%$ | 1,100 $\pm 148 \%$ | $<50 \pm 193 \%$ | $200 \pm 108 \%$ | $200 \pm 193 \%$ | $500 \pm 142 \%$ | $17.0 \pm 273 \%$ | $5.3 \pm 183 \%$ |
| Georgia | 1,400 $\pm 137 \%$ | 0 | $100 \pm 110 \%$ | 0 | $100 \pm 135 \%$ | 0 | $23.7 \pm 176 \%$ | 0.0 |
| Maine | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Maryland | $100 \pm 171 \%$ | 1,900 $\pm 194 \%$ | $100 \pm 125 \%$ | $500 \pm 187 \%$ | $300 \pm 136 \%$ | 1,200 $\pm 164 \%$ | $1.6 \pm 212 \%$ | $3.9 \pm 269 \%$ |
| Massachusetts | $<50 \pm 161 \%$ | $<50 \pm 120 \%$ | $<50 \pm 153 \%$ | $<50 \pm 152 \%$ | $100 \pm 153 \%$ | $100 \pm 137 \%$ | $0.4 \pm 222 \%$ | $0.5 \pm 194 \%$ |
| New Jersey | 3,500 $\pm 91 \%$ | 1,500 $\pm 87 \%$ | $300 \pm 84 \%$ | $200 \pm 115 \%$ | $600 \pm 91 \%$ | $400 \pm 113 \%$ | $11.0 \pm 124 \%$ | $7.3 \pm 144 \%$ |
| New York | 0 | 0 | $<50 \pm 190 \%$ | $200 \pm 196 \%$ | $<50 \pm 190 \%$ | $900 \pm 196 \%$ | 0.0 | 0.0 |
| North Carolina | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Rhode Island | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| South Carolina | 5,400 $\pm 73 \%$ | 3,000 $\pm 70 \%$ | $200 \pm 62 \%$ | $800 \pm 155 \%$ | $500 \pm 71 \%$ | 1,000 $\pm 125 \%$ | $31.7 \pm 96 \%$ | $3.9 \pm 170 \%$ |
| Virginia | 3,700 $\pm 82 \%$ | 2,000 $\pm 79 \%$ | $100 \pm 43 \%$ | $300 \pm 131 \%$ | $500 \pm 85 \%$ | $400 \pm 105 \%$ | $39.5 \pm 93 \%$ | $6.9 \pm 153 \%$ |
| West Virginia | $<50 \pm 172 \%$ | 0 | $<50 \pm 172 \%$ | $<50 \pm 186 \%$ | $<50 \pm 172 \%$ | $<50 \pm 186 \%$ | $4.0 \pm 244 \%$ | 0.0 |
| Atlantic Flyway Total | $14,800 \pm 43 \%$ | 9,600 $\pm 53 \%$ | 800 | 2,300 | $2,600 \pm 41 \%$ | $4,800 \pm 63 \%$ |  |  |
| Alabama | $200 \pm 192 \%$ | 0 | $<50 \pm 192 \%$ | 0 | $200 \pm 192 \%$ | 0 | $10.0 \pm 271 \%$ | 0.0 |
| Arkansas | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Illinois | $100 \pm 193 \%$ | 0 | $<50 \pm 193 \%$ | 0 | $100 \pm 193 \%$ | 0 | $2.0 \pm 273 \%$ | 0.0 |
| Indiana | $300 \pm 120 \%$ | $200 \pm 160 \%$ | $200 \pm 169 \%$ | $400 \pm 131 \%$ | $300 \pm 126 \%$ | $500 \pm 116 \%$ | $1.5 \pm 207 \%$ | $0.6 \pm 207 \%$ |
| Iowa | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Kentucky | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Louisiana | $700 \pm 139 \%$ | 7,600 $\pm 145 \%$ | $100 \pm 137 \%$ | $500 \pm 76 \%$ | $600 \pm 137 \%$ | $3,000 \pm 85 \%$ | $5.0 \pm 195 \%$ | $15.8 \pm 164 \%$ |
| Michigan | 0 | $400 \pm 134 \%$ | 0 | $400 \pm 134 \%$ | 0 | 1,200 $\pm 134 \%$ | 0.0 | $1.0 \pm 189 \%$ |
| Minnesota | $100 \pm 194 \%$ | 0 | $100 \pm 194 \%$ | $100 \pm 195 \%$ | $100 \pm 194 \%$ | $100 \pm 195 \%$ | $1.0 \pm 275 \%$ | 0.0 |
| Mississippi | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Missouri | 0 | 1,100 $\pm 196 \%$ | 0 | $600 \pm 196 \%$ | 0 | $600 \pm 196 \%$ | 0.0 | $2.0 \pm 277 \%$ |
| Ohio | 0 | $900 \pm 196 \%$ | 0 | $900 \pm 196 \%$ | 0 | $900 \pm 196 \%$ | 0.0 | $1.0 \pm 277 \%$ |
| Tennessee | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 |
| Wisconsin | $100 \pm 192 \%$ | $100 \pm 192 \%$ | $<50 \pm 192 \%$ | $100 \pm 136 \%$ | $100 \pm 192 \%$ | $400 \pm 148 \%$ | $4.0 \pm 272 \%$ | $1.5 \pm 235 \%$ |
| Mississippi Flyway Total | 1,500 $\pm 79 \%$ | 10,400 $\pm 110 \%$ | 500 | 2,900 | 1,300 $\pm 76 \%$ | $6,500 \pm 57 \%$ |  |  |
| Colorado | 0 | 0 | $<50 \pm 192 \%$ | 0 | $<50 \pm 192 \%$ | 0 | 0.0 | 0.0 |
| Kansas | 0 | $200 \pm 171 \%$ | 0 | $<50 \pm 171 \%$ | 0 | $<50 \pm 171 \%$ | 0.0 | $55.0 \pm 242 \%$ |
| Nebraska | 0 | 0 | $400 \pm 196 \%$ | 0 | $400 \pm 196 \%$ | 0 | 0.0 | 0.0 |
| New Mexico | 0 | $200 \pm 195 \%$ | 0 | $200 \pm 195 \%$ | 0 | $200 \pm 195 \%$ | 0.0 | $1.0 \pm 276 \%$ |
| Oklahoma | $700 \pm 122 \%$ | $3,100 \pm 135 \%$ | $400 \pm 184 \%$ | 1,500 $\pm 136 \%$ | $600 \pm 133 \%$ | $3,000 \pm 154 \%$ | $1.6 \pm 221 \%$ | $2.0 \pm 192 \%$ |
| Texas | 0 | 0 | 0 | $<50 \pm 191 \%$ | 0 | $<50 \pm 191 \%$ | 0.0 | 0.0 |
| Wyoming | 0 | $<50 \pm 167 \%$ | $<50 \pm 150 \%$ | $<50 \pm 117 \%$ | $<50 \pm 150 \%$ | $<50 \pm 128 \%$ | 0.0 | $1.5 \pm 204 \%$ |
| Central Flyway Total | $700 \pm 122 \%$ | $3,500 \pm 119 \%$ | 800 | 1,700 | $1,000 \pm 107 \%$ | $3,300 \pm 143 \%$ |  |  |
| U.S. Total | 16,900 $\pm 38 \%$ | $23,500 \pm 56 \%$ | 2,200 | 6,900 | $4,900 \pm 37 \%$ | 14,600 $\pm 46 \%$ |  |  |

${ }^{1}$ Variance estimates presented as $95 \%$ confidence interval as 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 2012 and 2013 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 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Atlantic | 2,100 | 1,700 | 100 | 100 | 12,600 | 7,800 | 0 | 0 |
| Mississippi | 1,400 | 9,500 | <50 | 100 | 100 | 800 | $<50$ | <50 |
| Central | 600 | 3,400 | <50 | 100 | 0 | 0 | 0 | 0 |
| U.S. Total | 4,100 | 14,500 | 100 | 300 | 12,700 | 8,600 | <50 | $<50$ |

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

Jim Robertson, Alabama Department of Conservation and Natural Resources

Robert Bowles, Alaska Department of Fish and Game
Anis Aoude, Arizona Game and Fish Department
Susan Porter, Arkansas Game and Fish Commission
Tony Straw, California Department of Fish and Game
Ed Gorman, Colorado Parks and Wildlife
Min Huang, Connecticut Department of Environmental Protection
Matthew DiBona, Delaware Department of Natural Resources and Environmental Control
Cindy Whittington, Florida Fish and Wildlife Conservation Commission
Michael Spencer, Georgia Department of Natural Resources
Craig Weidmeier, Idaho Department of Fish and Game
Don Bricker, Illinois Department of Natural Resources
Adam Phelps, Indiana Department of Natural Resources
Matthew VanGundy, Iowa Department of Natural Resources
Mary Becker, Kansas Department of Wildlife, Parks, and Tourism
Denise Boebinger, Kentucky Department of Fish and Wildlife Resources
Michelle Rayburn, Louisiana Department of Wildlife and Fisheries
Bill Swan, Maine Department of Inland Fisheries and Wildlife
Brent Evans, Maryland Wildlife and Heritage Service
Rick Kennedy and H Heussman, Massachusetts Division of Fisheries and Wildlife
Kristen Shuler, Michigan Department of Natural Resources
Margaret Dexter, Minnesota Department of Natural Resources
Curtis Thornhill, Mississippi Department of Wildlife, Fisheries and Parks
Julie Fleming, Missouri Department of Conservation
Hank Worsech, Montana Fish, Wildlife and Parks
Mark Vrtiska, Nebraska Game and Parks Commission
Paula Lannen, Nevada Department of Wildlife
Susan Perry, New Hampshire Fish and Game Department
Barbara Stoff, New Jersey Division of Fish and Wildlife
Kristin Madden, New Mexico Department of Game and Fish
Mary Bailey, New York Department of Environmental Conservation
Harvey White and Bobby Dunn, North Carolina Wildlife Resources Commission
Jerel Gulke, North Dakota Game and Fish Department
Andrew Burt, Ohio Department of Natural Resources
Rodney Derrick, Oklahoma Department of Wildlife Conservation
Brandon Reishus, Oregon Department of Fish and Wildlife
Terry Heckrote, Pennsylvania Game Commission
Ed Ferris, Rhode Island Division of Fish and Wildlife
Boyd Braxton, South Carolina Department of Natural Resources
Corey Huxoll, South Dakota Game, Fish, and Parks
Gary Clouse, Tennessee Wildlife Resources Agency
Kevin Kraii, Texas Parks and Wildlife Department
Blair Stringham, Utah Division of Wildlife Resources

Kris Nolan, Vermont Fish and Wildlife Department
Bob Ellis and Gary Costanzo, Virginia Department of Game and Inland Fisheries
Andrew Duff, Washington Department of Fish and Wildlife
Lisa Boggess, West Virginia Division of Natural Resources
Brian Dhuey, Wisconsin Department of Natural Resources
Matthew Barnes, Wyoming Game and Fish Department

## Appendix B. Names and affiliations of waterfowl wingbee participants.

## Atlantic Flyway Wingbee, Laurel, MD; January 27 to 31, 2014

J. Bennett, MD DNR; A. Bessler, USFWS; P. Bosco, USFWS; S. Chandler, USFWS/DMBM; R. Coup, PA GC; Z. Cravens, USFWS Patuxent Research Refuge; E. Edwards, USFWS; J. Edwards, USFWS; C. Ferguson, USFWS (Retired); P. Garrettson, USFWS/DMBM-PHAB; T. Hoppe, PA GC; T. Keller, PA GC; J. Klimstra, USFWS/DMBM; T. Lama, USFWS R5; T. Liddick, USFWS/DMBM; W. Martin, USFWS (Retired); K. McCargo, NC WRC; G. Mireles, USFWS Back Bay NWR; C. Nemes, USFWS Patuxent Research Refuge; N. North, Canadian Wildlife Service (Retired); J. O'Connor, NY DEC; P. Padding, USFWS/DMBM; M. Peters, WV DNR; B. Raftovich, USFWS/DMBM; B. Rau, USFWS/DMBM-PHAB; W. Rhodes, USFWS/DMBM; B. Rosamond, USFWS North MS National Wildlife Refuge Complex; N. Sagwitz, MD DNR; B. Sharick, NY DEC (Retired); M. Simmons, USFWS Patuxent Research Refuge; F. Simms, USFWS; C. Wicker, USFWS Patuxent Research Refuge.

## Mississippi Flyway Wingbee, Carbondale, IL; February 3 to 7, 2014

P. Brickel, MI DNR; C. Bryan, USFWS Crab Orchard NWR; G. Buckert, KY DFW; B. Burrows, IA DNR; J. Carbaugh, AR GFC; S. Chandler, USFWS/DMBM; R. Colvis, KY DFW; J. Darling, MI DNR; K. Delahunt, IL DNR; R. Eastridge, USFWS; M. Ervin, OH DOW; D. Fronczak, USFWS/DMBM-MS Flyway; D. Fuqua, TN WRC; C. Grotke, OH DOW; J. Hager, MO DOC; J. Hanks, LA DWF; J. Hartleb, USFWS; J. Hughes, LA DWF; M. Kapsch, USFWS; A. Kellner, IA DNR; G. Knutsen, USFWS-Agassiz NWR; B. Launey, LA DWF; K. Mangan, USFWS-Cypress Creek NWR; C. Netland, MN DNR; C. Plush, KY FWC; B. Raftovich, USFWS/DMBM; D. Rave, MN DNR; J. Schiering, OH DOW; R. Vinson, USDA; B. Walker, USFWS-Big Oaks NWR; R. Whitton, IL DNR.

## Central Flyway Wingbee, Emporia, KS; February 18 to 21, 2014

C. August, TX PWD; T. Bidrowski, KS DWPT; L. Bischof, ND GFD; M. Brandt, NE GPC; D. Butler, TX PWD; S. Chandler, USFWS; J. Dubovsky, USFWS; J. Edwardson, USFWS; K. Ertl, USFWS; A. Friesen, KS DWPT; J. Gammonley, CO DPW; M. Grovijahn, SD GFP; R. Gurria, Tamaulipas Wildlife Commission; L. Hancock, USFWS Flint Hills nwr; K. Hartke, TX PWD; M. Haugen, University of Nebraska-Lincoln; M. Johnson, ND GFD; K. Kraai, TX PWD; K. Kruse, USFWS; J. Lange, USFWS; T. Liddick, USFWS; K. Madden, NM DGF; K. Madsen, USFWS; T. Menard, USFWS; B. Meskimen, OK DWC; R. Mize, TX PWD; R. Murano, SD GFP; J. Neal, OK DWC; B. Raftovich, USFWS; J. Richardson, OK DWC; L. Roberts, WY GFD.; J. Roesner, USFWS CLNWR; N. Saake, NV DOW (Retired); P. Schmidt, USFWS; K. Schoonover, OK DWC; R. Schultheis, KS DWPT; J. Solberg, USFWS (Retired); B. Streger, NE GPC; R. Stutheit, NE GPC; M. Szymanski, ND GFD.; P. Thorpe, USFWS; J. Tofteland, ND GFD; R. Uhrmacher, KS DWPT; J. Valentine, USFWS SKDNWR; M. Vrtiska, NE GPC; R. Warhurst, DU; B. West, USFWS.

## Pacific Flyway Wingbee, Anderson, CA; February 24 to 28, 2014

A. Anderson, USFWS R7; D. Bachman, USFWS; B. Bales, PCJV; J. Bredy, USFWS; P. Bridge, USFWS Lake Havasu NWRC; M. Carpenter, USFWS SAC NWRC; S. Chandler, USFWS/DMBM; J. Chiu, USFWS; C. Dau, USFWS R7; S. Evans-Peters, PCJV; G. Gerstenberg, CA DFW; M. Harris, CA DFW; J. Krueger, USFWS-Minidoka NWR; J. Laughlin, USDA/APHIS/WS; K. Lopez, USFWS Hart Mt. NAR; K. Neill, NV DOW; S. Olson, USFWS/DMBM; B. Patrick, Ca DFW; W. Price,; B. Raftovich, USFWS/DMBM; B. Reishus, OR DFW; W. Rhodes, USFWS/DMBM; O. Rocha, CA DFW; N. Saake, Nevada DOW (Retired); J. Sands, USFWS; J. Schultz, CA DFW; B. Sedinger; B. Shults, USFWS R7; T. Thornton, OR DFW; M. Weaver, CA DFW; E. Wehlands, WA DFW.
U.S. Fish and Wildlife Service

Division of Migratory Bird Management
Branch of Harvest Surveys
11510 American Holly Drive
Laurel, Maryland, 20708-4002
http://www.fws.gov
July 2014
For State Transfer Relay Services: TTY/Voice: 771



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[^1]:    ${ }^{\text {a }}$ Ratio not shown if based on a sample of less than 20 wings
    ${ }^{\mathrm{b}}$ 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.

[^2]:    ${ }^{\text {a }}$ Ratio not shown if based on a sample of less than 20 wings
    ${ }^{\mathrm{b}}$ 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.

[^3]:    ${ }^{1}$ Variance estimates presented as $95 \%$ confidence interval as 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.

[^4]:    ${ }^{2}$ 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.

[^5]:    Variance estimates presented as $95 \%$ confidence interval as 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.

[^6]:    Variance estimates presented as $95 \%$ confidence interval as percent of the point estimate.

[^7]:    Variance estimates presented as $95 \%$ confidence interval as percent of the point estimate.

