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**September, 2012**
**Introduction**

In July 2011, we conducted a statewide hunter attitudes survey to examine a variety of topics related to waterfowl hunting and management. Although a National Duck Hunter Survey conducted in 2005 included Pennsylvania license buyers, the 2011 Pennsylvania survey represents the first statewide survey specific to waterfowl hunters conducted by the Pennsylvania Game Commission (PGC) and provides more detailed results than the 2005 national survey.

**Methods**

We surveyed a random sample of 5,000 hunters that were registered in the Harvest Information Program (HIP) in either the 2009-10 or 2010-11 hunting seasons and indicated on the HIP questionnaire completed at the time of license purchase that they hunted waterfowl. The survey methodology was intended to proceed as follows: 1. postcard announcement mailed to alert the hunter to a survey packet being delivered within a week, 2. the survey packet delivered via USPS to each hunter, and 3. a reminder postcard delivered to all hunters to complete and return their survey in provided prepaid envelope. However, clerical errors were encountered; the initial postcard mailed by the PGC was the reminder to complete and return the survey instead of the announcement postcard. This resulted in generating approximately 500 hunter phone calls to the PGC Harrisburg office requesting the survey. Second, some survey instruments that were initially mailed were incomplete (1 or more pages not included). Therefore, a second complete survey instrument was mailed to all hunters. Thankfully, survey recipients were forgiving and 3,599 completed surveys were returned for a survey response rate of 72%.

Returned surveys were compiled by the PGC Bureau of Automated Technology Services and entered into a Microsoft Access database. Data were imported into Excel for calculation of survey response rates.

The survey instrument and response frequencies are provided in Appendix A.

**Results**

*General Participation*

- 97% of respondents were PA residents while 3% were non-residents.
- Average respondent age was 45.5 years with an age distribution of 12 to 93 years old.
- 98% of respondents were male while 2% were female. By comparison, among all license buyers in the 2011-12 season about 92% were males and 8% were females.
- 60% of respondents hunted waterfowl in at least 1 of the previous 2 hunting seasons while 40% did not. This indicates a problem with the HIP framework as surveys were sent to HIP registrants who were listed in the database as having hunted waterfowl. One potential source of error is failure of license vendors to follow specified procedures for asking questions about species hunted when individuals purchase migratory game bird licenses. We receive occasional reports of vendors recording answers for license buyers without actually asking them the questions, which presumably can result in individuals who purchase the migratory game bird license to hunt “webless” species (doves, woodcock, etc.) being improperly recorded as waterfowl hunters in the database.
- Of those who hunted waterfowl, 64% hunted both ducks and geese, 11% only hunted ducks, and 25% only hunted geese.
Duck Hunting Participation

- 28% of duck hunting respondents indicated they’ve hunted for more than 25 years, 15% hunted between 16 and 25 years, 31% between 5 and 15 years and 25% have hunted fewer than 5 years.
- 78% of duck hunting respondents indicated they typically hunt within a 1-hour drive of their residence whereas 22% typically travel more than 1-hour.
- 32% of duck hunting respondents indicated they hunt primarily on private land, 32% on public land, 32% hunt both private and public land about the same amount, 3% hunt on regulated hunting grounds and 1% was unsure of land type.
- 9% of duck hunting respondents indicated in the past 2-seasons they hunted ducks at Pymatuning WMA, 4% at Middle Creek WMA whereas 86% of respondents indicated they did not hunt ducks at either WMA.
- Major reasons respondents hunted ducks: 29% indicated duck hunting was very important to them, 23% had time to hunt, 18% hunted ducks when not hunting another species and 16% were invited by someone to hunt ducks.
- Respondents indicated their most important duck hunting zones were: South – 61%, Northwest – 20%, North – 17% and Lake Erie 3%.
- Most important duck hunting periods by duck hunting zone (top 3 periods highlighted in yellow):

<table>
<thead>
<tr>
<th>Period</th>
<th>LEZ %</th>
<th>NWZ %</th>
<th>NZ %</th>
<th>SZ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 1-15</td>
<td>5%</td>
<td>24%</td>
<td>26%</td>
<td>19%</td>
</tr>
<tr>
<td>Oct 16-31</td>
<td>11%</td>
<td>24%</td>
<td>25%</td>
<td>18%</td>
</tr>
<tr>
<td>Nov 1-15</td>
<td>16%</td>
<td>13%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Nov 16-30</td>
<td>23%</td>
<td>16%</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>Dec 1-15</td>
<td>11%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Dec 16-31</td>
<td>15%</td>
<td>10%</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>Jan 1-15</td>
<td>11%</td>
<td>4%</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>Jan 16-31</td>
<td>7%</td>
<td>3%</td>
<td>6%</td>
<td>13%</td>
</tr>
</tbody>
</table>

- 65% of duck hunters were satisfied overall with recent duck hunting experience (10% very satisfied, 55% satisfied) whereas 17% were dissatisfied and 3% were very dissatisfied. 15% of duck hunters had no opinion.
- However when asked how the quality of their duck hunting experience has changed since they began duck hunting, 32% indicated it has gotten worse (21% a little worse, 11% much worse) while 19% indicated it has gotten better (5% much better & 14% a little better). Almost half of respondents indicated it has remained the same (38%) or had no opinion (11%).
- Duck hunters were asked a series of 10 questions regarding how their level of duck hunting satisfaction would change under various regulatory scenarios. The questions that contained a majority of duck hunters indicating changes in satisfaction were: concurrent duck and Canada goose seasons as much as possible (84% satisfied) and legalize use of a motorized spinning wing decoy (56% satisfied). Nearly half (49%) of respondents were satisfied with the youth hunting day while only 9% indicated they were dissatisfied. Highest rates of dissatisfaction were closed duck season during rifle deer season (42% dissatisfied, 21% satisfied & 33% neutral) and weekday instead of Saturday opening days (36% dissatisfied, 26% satisfied & 34% neutral).
Hunters were asked a hypothetical question about tradeoffs between season length and structure, overall bag limit size, and complexity of regulations for individual species. Hunters appeared to place high importance on maintaining as many hunting days as possible (only 14% would sacrifice 10-15 days of hunting to maintain current overall bag limit and reduce the number of species restrictions), with 38% preferring a 60-day season with a smaller overall bag limit and fewer species restrictions, and 32% of hunters favoring the current structure of a 6-bird bag limit with numerous species restrictions. It is important to note that the PGC cannot unilaterally make such a change because state level regulations (e.g. species-specific bag limits) may not be more liberal than federal regulations. However, this result will be shared with flyway councils and other organizations who are currently researching the human dimensions of waterfowl management, for possible consideration in development of future flyway-level regulations packages.

Hunters were also asked a hypothetical question about Sunday hunting for ducks. Opening Sundays to duck hunting would require shortening the overall season by 1-2 weeks to remain at 60 total hunting days, but 52% of respondents would be in favor of making this tradeoff compared to 39% who prefer the (current) longer season with no Sunday hunting, and 10% who did not state a preference. As with the previous question, at the present time the PGC cannot offer this option unilaterally. Additional Sunday hunting opportunities would need to be approved by the Pennsylvania legislature.

**Goose Hunting Participation**

- 95% of respondents indicated they were either only (72%) or primarily (23%) Canada goose hunters while 3% hunted Canada goose and snow goose about equally and 2% were either primarily or only snow goose hunters.
- 24% of goose hunting respondents indicated they’ve hunted geese for more than 25 years, 15% hunted between 16 and 25 years, 33% between 5 and 15 years and 28% have hunted geese fewer than 5 years.
- 77% of goose hunting respondents indicated they typically hunt within a 1-hour drive of their residence whereas 23% typically travel more than 1-hour to hunt. This was nearly identical to the distance pattern for duck hunters.
- 51% of goose hunting respondents indicated they hunt primarily on private land, 21% on public land and 27% hunt both private and public land about the same. The weighting of goose hunting effort toward private land was a notable difference from duck hunting, which appears to be nearly equally distributed between public and private land. Differences may reflect a combination of habitats preferentially hunted (agricultural fields for geese and wetlands for ducks) and the relative distribution of wetland and upland habitats between public and private ownerships.
- 15% of goose hunting respondents indicated they hunted goose permit areas at Pymatuning WMA in the past 2-seasons while 7% hunted at Middle Creek WMA. 78% of respondents indicated they’ve not hunted geese at either WMA in the past 2-seasons. It’s likely a significant proportion of PA goose hunters utilize these WMAs over a period of time, presenting opportunities to contact hunters on an individual level.
- Major reasons respondents hunted geese: 24% indicated goose hunting was very important to them, 22% had time to hunt geese, 17% hunted geese when not hunting another species and 17% were invited by someone to hunt geese. High goose numbers, access to a new place to hunt, and personal / economic reasons were not commonly cited as motivations by hunters (fewer than 10% identified any of these as major reasons for goose hunting). All patterns among reasons for hunting were very similar between goose and duck hunters.
- Respondents indicated their most important goose hunting zones were: Resident Population – 42%, Atlantic Population – 39% and Southern James Bay Population – 19%.
• Satisfaction ratings for goose hunters were even higher than those of duck hunters: 77% of goose hunters were satisfied overall with their recent goose hunting experience (17% very satisfied, 60% satisfied) whereas 9% were dissatisfied and 1% was very dissatisfied. 13% of goose hunters had no opinion.

• When asked how the quality of their goose hunting experience has changed since they began goose hunting, 37% indicated it had gotten better (24% a little better, 13% much better) while only 19% indicated it has gotten worse (5% much worse & 14% a little worse). This was the reverse of the trend expressed by duck hunters, who were more likely to say the quality of their experience had gotten worse over time. 43% of respondents indicated the quality of their goose hunting experience has remained the same (32%) or had no opinion (11%).

• Goose hunters were asked a series of 10 questions regarding how their level of goose hunting satisfaction would change under various regulatory scenarios. The questions that had a majority of respondents indicating positive changes in satisfaction were: concurrent goose and duck seasons as much as possible (81% satisfied), and could hunt geese in October when duck season was open (72%). 49% of respective respondents indicated satisfaction with legalized use of motorized spinning wing decoys and with the youth hunting day, while 7% and 6% respectively indicated dissatisfaction.

Barriers to Participation

• Among those who have not recently hunted waterfowl, the factors respondents indicated would be important in increasing their interest in hunting waterfowl were: 68% if they had more waterfowl hunting locations, 64% if they had more time and fewer obligations, 50% if waterfowl hunting regulations were less complex, 48% if waterfowl populations were higher, 46% if they had somebody to hunt with and 44% if they could identify duck species.

Miscellaneous Questions

• All respondents were asked their opinion of the idea of a hunting season for tundra swans, a common migrant and wintering species that is currently hunted in 2 Atlantic Flyway states (Virginia and North Carolina) where it occurs. The percentages of respondents indicating no opinion and supporting the idea of a tundra swan season were nearly identical, with about half of those in support indicating an interest in personally participating in swan hunting. 14% of respondents were opposed to the idea of a tundra swan season.

• Respondents were asked for their opinion on an increased fee for migratory game bird hunting privileges if a conservation stamp were included. In essence, this concept would make the current voluntary Pennsylvania Waterfowl Stamp mandatory, with the goal of providing additional funding for habitat and population management activities benefiting migratory game birds. However, only 29% of respondents supported this idea, with 41% opposed and 30% not sure.

Management Considerations

• A majority of Pennsylvania waterfowl hunters are satisfied or very satisfied with their recent hunting experiences for ducks and geese. This suggests that major changes to current management programs are unwarranted. Also, when considering opportunities to further increase satisfaction through minor adjustments in season structure and other regulations, policy makers should proceed cautiously. Many of the potential changes investigated in this survey were rated as “neutral” or “don’t know” by a high percentage of respondents, even where there appeared to be differences between the percentages of respondents suggesting these changes would increase or decrease their satisfaction. For example, while 33% of hunters indicated that a single statewide duck zone would increase their satisfaction vs. 13% indicating decreased satisfaction, the majority (54%) of
respondents to this question were neutral or didn’t know. In such cases, changes might be received negatively by many respondents who did not indicate a strong opinion, resulting in an unintended reduction in overall satisfaction. To avoid this potential pitfall, the implications for the satisfaction of undecideds should be examined in detail prior to making changes in response to relatively small segments of the waterfowling public.

- Concurrent duck and Canada goose seasons where possible were highly favored. Managers should educate hunters on the potential tradeoffs and respond to this opportunity to increase satisfaction where frameworks allow. One caveat is avid Canada goose hunters who prefer late (January & February) seasons could react negatively if traditional days are shifted away from these months.

- Similar to survey results for many other types of hunters, lack of available time (a factor that wildlife agencies have limited ability to address) is a major deterrent to participation in waterfowl hunting. However, Pennsylvania hunters identified lack of places to hunt ducks and geese as an even more significant barrier. To some extent, this likely reflects limitations imposed by the Commonwealth’s geographic location and natural topography. However, the PGC and its partners should pursue opportunities to acquire, restore, and manage wetland and upland habitats to enhance availability, accessibility, and quality of waterfowl hunting areas. Developing internet based waterfowl hunting applications, brochures or guides that identify areas (SGL’s, NWR’s, State Parks and other lands) providing waterfowl hunting could increase awareness of existing opportunities. It may be beneficial to explore methods for linking hunters with private landowners experiencing nuisance and damage issues with overabundant waterfowl species such as resident Canada geese and snow geese.

- Knowing more about how to hunt waterfowl and knowing how to identify duck species were identified as somewhat important or very important barriers by 38-44% of those who don’t hunt waterfowl. Development and distribution of waterfowl hunting primers (how to, ID guides, waterfowl hunting ethics, hunting regulations applications, etc.) would appear to be of great benefit to potential waterfowl hunters. Also, support should be provided to waterfowl hunting groups that mentor interested youth and novice waterfowlers. This is a proven method to increase recruitment and retention to waterfowl hunting. PGC managed waterfowl hunting opportunities at Pymatuning & Middle Creek WMA could serve as avenues for this to occur.
Appendix A: Survey Instrument/Frequencies
Pennsylvania Game Commission

2011 Pennsylvania Waterfowl Hunter Survey 5,000 surveys sent.

1. Are you a PA resident or nonresident hunter (Circle one):  1. Resident   2. Nonresident

<table>
<thead>
<tr>
<th># PA Resident</th>
<th>% PA</th>
<th># non-Resident</th>
<th>% NR</th>
<th># total response</th>
<th>% respond</th>
<th># non-respond</th>
<th>% non-respond</th>
<th>total</th>
<th>% return</th>
</tr>
</thead>
<tbody>
<tr>
<td>3163</td>
<td>97%</td>
<td>108</td>
<td>3%</td>
<td>3271</td>
<td>91%</td>
<td>328</td>
<td>9%</td>
<td>3599</td>
<td>72%</td>
</tr>
</tbody>
</table>

2. What is your age? _______YEARS

3. What is your gender (Circle one):  1. Male: 3,477 or 98%   2. Female: 54 or 2%

<table>
<thead>
<tr>
<th># male</th>
<th>% male</th>
<th># female</th>
<th>% female</th>
<th>total resp.</th>
<th>no resp.</th>
<th>% no resp.</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3477</td>
<td>98%</td>
<td>54</td>
<td>2%</td>
<td>3531</td>
<td>68</td>
<td>2%</td>
<td>3599</td>
</tr>
</tbody>
</table>

4. Did you hunt waterfowl (ducks and/or geese) in Pennsylvania in either the 2009-10 or 2010-11 seasons? Please circle the number of your response and follow the instructions for which of the remaining survey questions to answer and which questions to skip.

1. I hunted both ducks and geese. 1,301 or 64% of total indicating they hunted waterfowl.
2. I hunted ducks, but not geese. 213 or 11% of total indicating they hunted waterfowl.
3. I hunted geese, but not ducks. 510 or 25% of total indicating they hunted waterfowl.
4. I did not hunt waterfowl. 1,353 or 40% of total respondents. Sixty percent (60%) indicated they hunted waterfowl.

**Duck Hunting Questions**

5. Estimate the number of years you have hunted ducks (Circle one):

1. More than 25 years: 467 or 28%.  2. 16-25 years: 252 or 15%
3. 5-15 years: 520 or 31%  4. Less than 5 years: 441 or 25%

6. Is your typical duck hunting area within a 1-hour drive of your residence (Circle one):

1. Less than or about a 1-hour drive: 1,315 or 78%  2. More than a 1-hour drive: 364 or 22%

7. I primarily hunt ducks on (Circle one):  1. Private Lands: 542 or 32%  2. Public Lands: 536 or 32%
3. Both about the same: 544 or 32%  4. Regulated hunting grounds: 43 or 3%  5. Not sure: 12 or 1%

8. In either of the past 2 seasons, did you hunt ducks at the following Game Commission duck hunting permit areas?

1. Pymatuning WMA: 157 or 9%  2. Middle Creek WMA: 69 or 4%  3. I did not hunt either: 1,439 or 86%

9. Please circle the major reasons you hunted ducks. (Circle all numbers that apply).

1. Duck hunting is very important to me: 894 or 29%.
2. Someone invited me to hunt ducks with them: 510 or 16%.
3. There were a lot of ducks this year: 85 or 3%.
4. I had time to hunt: 715 or 23%.
5. I hunt ducks when not hunting another species: 564 or 18%.
6. I had access to a new place to hunt: 149 or 5%.
7. Personal reasons (family situation, etc.): 150 or 5%.
8. Economic reasons (employment situation, cost of food, etc.): 67 or 2%.
9. Other(s): ____________________________________________________________
10. Please indicate (circle all answers that apply) where and when you hunted ducks in the past 2 seasons. Refer to the duck hunting zone map and seasons on the back of the cover letter to determine where you hunted.

<table>
<thead>
<tr>
<th>Circle zone(s) hunted</th>
<th>Circle Time period(s) when you hunted ducks in Pennsylvania</th>
<th>Did you harvest ducks?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Erie: 59 or 4%</td>
<td>Not applicable (no split season)</td>
<td>Yes: 98% No</td>
</tr>
<tr>
<td>Northwest: 310 or 21%</td>
<td>Oct.: 140 or 45% Nov./Dec.: 89 or 29% Both periods: 195 or 63%</td>
<td>Yes: 90% No</td>
</tr>
<tr>
<td>North: 294 or 20%</td>
<td>Oct.: 166 or 56% Nov./Jan.: 117 or 40% Both periods: 182 or 62%</td>
<td>Yes: 97% No</td>
</tr>
<tr>
<td>South: 817 or 55%</td>
<td>Oct.: 337 or 41% Nov./Jan.: 390 or 48% Both periods: 605 or 74%</td>
<td>Yes: 100% No</td>
</tr>
</tbody>
</table>

11. Circle your most important zone (Choose one):
   - Lake Erie: 43 or 3%
   - Northwest: 315 or 20%
   - North: 263 or 17%
   - South: 956 or 61%

12. Please circle the 2 periods below when it is most important to you to have the duck season open in the most important duck zone you hunt in Pennsylvania.

<table>
<thead>
<tr>
<th>Period</th>
<th>LEZ #</th>
<th>LEZ %</th>
<th>NWZ #</th>
<th>NWZ %</th>
<th>NZ #</th>
<th>NZ %</th>
<th>SZ #</th>
<th>SZ %</th>
<th>Tot. resp</th>
<th>Tot. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 1-15</td>
<td>4</td>
<td>5%</td>
<td>140</td>
<td>24%</td>
<td>125</td>
<td>26%</td>
<td>309</td>
<td>19%</td>
<td>578</td>
<td>21%</td>
</tr>
<tr>
<td>Oct 16-31</td>
<td>8</td>
<td>11%</td>
<td>141</td>
<td>24%</td>
<td>122</td>
<td>25%</td>
<td>296</td>
<td>18%</td>
<td>567</td>
<td>20%</td>
</tr>
<tr>
<td>Nov 1-15</td>
<td>12</td>
<td>16%</td>
<td>73</td>
<td>13%</td>
<td>59</td>
<td>12%</td>
<td>16</td>
<td>1%</td>
<td>160</td>
<td>6%</td>
</tr>
<tr>
<td>Nov 16-30</td>
<td>17</td>
<td>23%</td>
<td>93</td>
<td>16%</td>
<td>43</td>
<td>9%</td>
<td>229</td>
<td>14%</td>
<td>382</td>
<td>14%</td>
</tr>
<tr>
<td>Dec 1-15</td>
<td>8</td>
<td>11%</td>
<td>31</td>
<td>5%</td>
<td>22</td>
<td>5%</td>
<td>92</td>
<td>6%</td>
<td>153</td>
<td>5%</td>
</tr>
<tr>
<td>Dec 16-31</td>
<td>11</td>
<td>15%</td>
<td>59</td>
<td>10%</td>
<td>40</td>
<td>8%</td>
<td>290</td>
<td>17%</td>
<td>400</td>
<td>14%</td>
</tr>
<tr>
<td>Jan 1-15</td>
<td>8</td>
<td>11%</td>
<td>24</td>
<td>4%</td>
<td>45</td>
<td>9%</td>
<td>225</td>
<td>13%</td>
<td>302</td>
<td>11%</td>
</tr>
<tr>
<td>Jan 16-31</td>
<td>5</td>
<td>7%</td>
<td>17</td>
<td>3%</td>
<td>31</td>
<td>6%</td>
<td>210</td>
<td>13%</td>
<td>263</td>
<td>9%</td>
</tr>
</tbody>
</table>

13. How would you rate your recent overall duck hunting experience in Pennsylvania? (Circle one. Extra space if you care to explain).
   1. Very Satisfied: 164 or 10%
   2. Satisfied: 913 or 55%
   3. No Opinion: 246 or 15%
   4. Dissatisfied: 278 or 17%
   5. Very Dissatisfied: 51 or 3%

14. Since you began duck hunting in Pennsylvania, what changes have you observed in the quality of your duck hunting experience (Circle one)?
   1. It has gotten much better: 77 or 5%
   2. It has gotten a little better: 236 or 14%
   3. It has stayed about the same: 631 or 38%
   4. It has gotten a little worse: 350 or 21%
   5. It has gotten much worse: 186 or 11%
   6. No opinion: 177 or 11%
15. Please answer all the following questions by circling the number indicating your level of satisfaction.

<table>
<thead>
<tr>
<th>Question: Your level of duck hunting satisfaction...</th>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Neutral</th>
<th>Somewhat Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. If October segment of duck season opened a week later in my most important zone.</td>
<td>144 9%</td>
<td>229 14%</td>
<td>694 42%</td>
<td>213 13%</td>
<td>254 16%</td>
<td>104 6%</td>
</tr>
<tr>
<td>2. If the October segment in the northwest and north zones opened one week before the south zone.</td>
<td>192 12%</td>
<td>201 12%</td>
<td>821 51%</td>
<td>77 5%</td>
<td>69 4%</td>
<td>265 16%</td>
</tr>
<tr>
<td>3. If the timing of duck seasons stayed the same as they were in 2010-11.</td>
<td>203 12%</td>
<td>463 28%</td>
<td>690 42%</td>
<td>134 8%</td>
<td>76 5%</td>
<td>68 4%</td>
</tr>
<tr>
<td>4. If the opening day of duck season occurred on a weekday as opposed to Saturday or Holiday.</td>
<td>244 15%</td>
<td>187 11%</td>
<td>564 34%</td>
<td>244 15%</td>
<td>349 21%</td>
<td>50 3%</td>
</tr>
<tr>
<td>5. If duck seasons were closed during general firearms (rifle) deer season.</td>
<td>187 11%</td>
<td>162 10%</td>
<td>548 33%</td>
<td>236 14%</td>
<td>457 28%</td>
<td>49 3%</td>
</tr>
<tr>
<td>6. If PA had a single statewide duck season with no zones, 3 open segments and 2 closed splits instead of the current 4 duck hunting zones and 2 open segments with one closed split</td>
<td>241 15%</td>
<td>293 18%</td>
<td>737 45%</td>
<td>105 6%</td>
<td>111 7%</td>
<td>152 9%</td>
</tr>
<tr>
<td>7. If duck seasons overlapped Canada goose seasons as much as possible.</td>
<td>1027 62%</td>
<td>368 22%</td>
<td>197 12%</td>
<td>14 1%</td>
<td>16 1%</td>
<td>24 1%</td>
</tr>
<tr>
<td>8. With the hunting behavior of other duck hunters.</td>
<td>145 9%</td>
<td>361 22%</td>
<td>648 40%</td>
<td>275 17%</td>
<td>153 9%</td>
<td>55 3%</td>
</tr>
<tr>
<td>9. With September youth waterfowl hunting day.</td>
<td>563 34%</td>
<td>254 15%</td>
<td>586 36%</td>
<td>71 4%</td>
<td>80 5%</td>
<td>86 5%</td>
</tr>
<tr>
<td>10. If you could use a motorized spinning wing decoy.</td>
<td>634 39%</td>
<td>274 17%</td>
<td>526 32%</td>
<td>41 2%</td>
<td>100 6%</td>
<td>70 4%</td>
</tr>
</tbody>
</table>

16. If each of the options below provided equal conservation of duck populations, please select the one choice which you would prefer. (Please check only one).

1. **523 or 32%** A 60-day duck season with a 6-bird daily bag limit and numerous restrictions for individual species (current season structure).

2. **634 or 38%** A 60-day duck season with a 3- or 4-bird daily bag limit and fewer restrictions for individual species.

3. **224 or 14%** A 45- or 50-day duck season with a 6-bird daily bag limit and fewer restrictions for individual species.

4. **272 or 16%** No preference.
17. If each of the options below provided equal conservation of duck populations, please select the one choice which you would prefer. (Please check only one).
   1. 643 or 39% A 10-week season with Sundays closed to hunting (current season structure).
   2. 852 or 52% An 8-9 week season with Sundays open to hunting.
   3. 159 or 10% No preference.

**Goose Hunting Questions**

18. Which species of geese did you hunt in Pennsylvania in either the 2009-10 or 2010-11 seasons (Circle one)?
   1. Canada geese only: 1,429 or 72%
   2. Snow geese only: 13 or 1%
   3. Both species, but primarily Canada geese: 445 or 23%
   4. Both species, but primarily snow geese: 17 or 1%
   5. Both species about equally: 68 or 3%

19. Estimate the number of years you have hunted geese (Circle one):
   1. More than 25 years: 475 or 24%
   2. 16-25 years: 303 or 15%
   3. 6-15 years: 644 or 33%
   4. Less than 5 years: 555 or 28%

20. Is your typical goose hunting area within a 1-hour drive of your residence (Circle one):
   1. Less than or about a 1-hour drive: 1,514 or 77%
   2. More than a 1-hour drive: 456 or 23%

21. I primarily hunt geese on (Circle one):
   1. Private Lands: 1,009 or 51%
   2. Public Lands: 418 or 21%
   3. Both about the same: 531 or 27%
   4. Not sure: 0

22. In the past 2 seasons, write in the number of times you hunted at the following Game Commission goose hunting permit areas?
   1. Pymatuning WMA: 285 or 15%
   2. Middle Creek WMA: 131 or 7%
   3. I did not hunt either: 1,439 or 78%

23. Please circle the major reasons you hunted geese. (Circle all numbers that apply).
   1. Goose hunting is very important to me: 974 or 24%
   2. Someone invited me to hunt geese with them: 701 or 17%
   3. There were a lot of geese this year: 335 or 8%
   4. I had time to hunt: 919 or 22%
   5. I hunt geese when not hunting another species: 713 or 17%
   6. I had access to a new place to hunt: 234 or 6%
   7. Personal reasons (family situation, etc.): 184 or 4%
   8. Economic reasons (employment situation, cost of food, etc.): 75 or 2%
   9. Other(s): ____________________________

24. Please circle if, where and when you hunted geese in the past 2 seasons. Refer to the goose hunting zone map and seasons on the back of the cover letter to determine where and when you hunted. If you only hunted snow geese, leave this question blank and go to question 26.

<table>
<thead>
<tr>
<th>Circle Canada goose zone(s) hunted</th>
<th>Circle Time period(s) when you hunted Canada geese in Pennsylvania</th>
<th>Did you harvest geese?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJBP: 318 or 21%</td>
<td>Sept.: 200 or 63% Fall: 316 or 99% Winter: 195 or 61%</td>
<td>Yes: 96% No</td>
</tr>
<tr>
<td>RP: 677 or 46%</td>
<td>Sept.: 551 or 81% Fall: 562 or 83% Winter: 182 or 27%</td>
<td>Yes: 95% No</td>
</tr>
<tr>
<td>AP: 542 or 37%</td>
<td>Sept.: 340 or 63% Fall: 471 or 87% Winter: 605 or 100%</td>
<td>Yes: 100% No</td>
</tr>
</tbody>
</table>
25. Circle your most important Canada goose zone (Circle one): SJBP: 324 or 19% RP: 731 or 42% AP: 681 or 39%

26. Please answer all the following questions by circling the number indicating your level of satisfaction.

<table>
<thead>
<tr>
<th>Question: Your level of goose hunting satisfaction…</th>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Neutral</th>
<th>Somewhat Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. If I could also hunt geese in October when duck season was open in my most important zone.</td>
<td>401 52%</td>
<td>154 20%</td>
<td>176 23%</td>
<td>11 1%</td>
<td>8 1%</td>
<td>18 2%</td>
</tr>
<tr>
<td>2. If goose seasons stayed the same as they were in 2010-11.</td>
<td>81 11%</td>
<td>210 27%</td>
<td>371 48%</td>
<td>70 9%</td>
<td>15 2%</td>
<td>20 3%</td>
</tr>
<tr>
<td>3. If the opening day of goose season occurred on a weekday as opposed to Saturday or Holiday.</td>
<td>114 15%</td>
<td>77 10%</td>
<td>350 46%</td>
<td>87 11%</td>
<td>124 16%</td>
<td>17 2%</td>
</tr>
<tr>
<td>4. If Canada goose seasons were open during general firearms (rifle) deer season.</td>
<td>200 26%</td>
<td>111 14%</td>
<td>302 39%</td>
<td>63 8%</td>
<td>78 10%</td>
<td>18 2%</td>
</tr>
<tr>
<td>5. If duck and Canada goose seasons were open together more often.</td>
<td>444 58%</td>
<td>177 23%</td>
<td>123 16%</td>
<td>9 1%</td>
<td>5 1%</td>
<td>10 1%</td>
</tr>
<tr>
<td>6. With the hunting behavior of other goose hunters.</td>
<td>82 11%</td>
<td>164 21%</td>
<td>304 40%</td>
<td>123 16%</td>
<td>74 10%</td>
<td>21 3%</td>
</tr>
<tr>
<td>7. If the daily bag limit during the September season was higher.</td>
<td>195 25%</td>
<td>123 16%</td>
<td>381 50%</td>
<td>35 5%</td>
<td>19 2%</td>
<td>16 2%</td>
</tr>
<tr>
<td>8. With the September youth waterfowl hunting day.</td>
<td>255 33%</td>
<td>126 16%</td>
<td>311 40%</td>
<td>19 2%</td>
<td>27 4%</td>
<td>30 4%</td>
</tr>
<tr>
<td>9. If you could use a motorized spinning wing decoy.</td>
<td>252 33%</td>
<td>121 16%</td>
<td>307 40%</td>
<td>19 2%</td>
<td>38 5%</td>
<td>31 4%</td>
</tr>
</tbody>
</table>

27. How would you rate your overall recent goose hunting experience in Pennsylvania (Circle one)? (Extra space if you care to explain).

1. Very Satisfied: 134 or 17%  
2. Satisfied: 471 or 60%  
3. No Opinion: 101 or 13%  
4. Dissatisfied: 67 or 9%  
5. Very Dissatisfied: 8 or 1%
28. Since you began goose hunting in Pennsylvania, what changes have you observed in the quality of your goose hunting experience (Circle one)?

1. It has gotten much better: 105 or 13%
2. It has gotten a little better: 187 or 24%
3. It has stayed about the same: 253 or 32%
4. It has gotten a little worse: 113 or 14%
5. It has gotten much worse: 43 or 5%
6. No Opinion: 87 or 11%

Questions for Those Who Did Not Hunt Waterfowl

29. If you are not a waterfowl hunter, or simply haven’t hunted waterfowl the past 2 years, please consider how the following factors likely would influence your interest to participate in waterfowl hunting (duck or goose). (Please do NOT answer if you hunted waterfowl either of the past 2 seasons).

<table>
<thead>
<tr>
<th>Question: I would have more interest in waterfowl hunting if...</th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Neither Important or Unimportant</th>
<th>Somewhat Unimportant</th>
<th>Very Unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The hunting regulations were less complicated.</td>
<td>327 24%</td>
<td>353 26%</td>
<td>469 34%</td>
<td>80 6%</td>
<td>141 10%</td>
</tr>
<tr>
<td>2. Waterfowl populations were higher.</td>
<td>282 21%</td>
<td>370 27%</td>
<td>488 36%</td>
<td>84 6%</td>
<td>129 10%</td>
</tr>
<tr>
<td>3. I had more places to hunt waterfowl.</td>
<td>601 43%</td>
<td>344 25%</td>
<td>287 21%</td>
<td>54 4%</td>
<td>98 7%</td>
</tr>
<tr>
<td>4. Waterfowl hunting was less crowded.</td>
<td>206 15%</td>
<td>269 20%</td>
<td>610 46%</td>
<td>121 9%</td>
<td>134 10%</td>
</tr>
<tr>
<td>5. I had someone to hunt waterfowl with.</td>
<td>308 23%</td>
<td>308 23%</td>
<td>449 33%</td>
<td>119 9%</td>
<td>167 12%</td>
</tr>
<tr>
<td>6. Waterfowl season didn’t overlap with other seasons.</td>
<td>233 17%</td>
<td>321 24%</td>
<td>529 39%</td>
<td>106 8%</td>
<td>155 12%</td>
</tr>
<tr>
<td>7. I had fewer obligations and more time to hunt.</td>
<td>558 41%</td>
<td>314 23%</td>
<td>338 25%</td>
<td>65 5%</td>
<td>102 7%</td>
</tr>
<tr>
<td>8. Duck season was earlier.</td>
<td>106 8%</td>
<td>182 14%</td>
<td>772 58%</td>
<td>94 7%</td>
<td>178 13%</td>
</tr>
<tr>
<td>9. Duck season was later.</td>
<td>76 6%</td>
<td>144 11%</td>
<td>794 60%</td>
<td>108 8%</td>
<td>206 16%</td>
</tr>
<tr>
<td>10. I knew more about how to hunt waterfowl.</td>
<td>200 15%</td>
<td>314 23%</td>
<td>531 39%</td>
<td>105 8%</td>
<td>201 15%</td>
</tr>
<tr>
<td>11. I could identify duck species.</td>
<td>290 22%</td>
<td>298 22%</td>
<td>475 35%</td>
<td>98 7%</td>
<td>184 14%</td>
</tr>
<tr>
<td>12. Waterfowl hunting was less expensive.</td>
<td>244 18%</td>
<td>281 21%</td>
<td>550 41%</td>
<td>105 8%</td>
<td>170 13%</td>
</tr>
<tr>
<td>13. I was physically able to hunt waterfowl.</td>
<td>109 8%</td>
<td>89 7%</td>
<td>603 45%</td>
<td>79 6%</td>
<td>460 34%</td>
</tr>
</tbody>
</table>
Questions for All Respondents

30. Some Eastern states currently have open hunting seasons for Tundra Swans, however there is currently no season on tundra swans in Pennsylvania. Which of the choices below best describes your opinion about the idea of a hunting season for this species in Pennsylvania (Circle one)?

1. **760 or 22%** I support the idea of a tundra swan hunting season, and I would be likely to personally participate in swan hunting.

2. **689 or 20%** I support the idea of a tundra swan hunting season, but I would not be likely to personally participate in swan hunting.

3. **487 or 14%** I oppose the idea of a tundra swan hunting season.

4. **1,476 or 43%** I neither support nor oppose the idea of a tundra swan hunting season.

31. Would you support changing the Pennsylvania migratory game bird license to a migratory game bird stamp if you received a conservation stamp (similar to the non-mandatory Pennsylvania Waterfowl Stamp) in addition to the migratory game bird hunting privileges? This will require an increased fee above the current fee of $3.70.

1. **1,011 or 29%** Yes
2. **1,406 or 41%** No
3. **1,023 or 30%** Not Sure