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EVALUATION OF THE 2019 MICHIGAN STOCKED PHEASANT PROGRAM

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ABSTRACT

Pheasant hunters were contacted after the 2019 hunting season to estimate hunter participation on the 13 Michigan game areas where pheasants had been released and to determine hunter's satisfaction with the program. An estimated 2,851 hunters spent about 11,902 days afield hunting pheasant and harvested 4,887 pheasants. About 53% of hunters harvested at least one pheasant. About 45% of pheasant hunters on all areas combined were satisfied (i.e., either very satisfied or somewhat satisfied) with the number of pheasants seen, and 41% were satisfied with the number of pheasants harvested. About 58% of pheasant hunters were satisfied with their overall hunting experience. Overall, only 21% of pheasant hunters indicated that crowding among hunters was a serious problem where they had hunted. About 33% of the people that hunted pheasants (928 hunters) reported that they also had hunted other small game species on the game areas in 2019. About 97% of the people that hunted pheasants (2,763) reported that they have hunted small game previously during their lifetime. In contrast, 3% of the pheasant hunters indicated that they had never hunted small game (i.e., 88 new small game hunters). Excluding the new small game hunters, 98% of the pheasant hunters had hunted small game at least one year during the previous five years (2,700). Conversely, about 2% of the pheasant hunters had not hunted small game during the previous five years (i.e., 63 reactivated small game hunters). About 38% of the pheasant hunters reported that they still would have hunted pheasants (either wild or stocked birds) during 2019 even if pheasants hadn't been released on the 13 game areas (1,079). By contrast, 50% of the pheasant hunters on the game areas indicated they would not have hunted pheasants in 2019 without the release program (1,421) and 12% were uncertain if they would have hunted without the release program (351). About 70% of the pheasant hunters reported

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that they still would have hunted other small game species during 2019 even if pheasants hadn't been released on the 13 game areas (1,982). In contrast, 22% of the pheasant hunters on the game areas indicated they would not have hunted any small game species in 2019 without the pheasant release program (620) and 9% were uncertain if they would have hunted small game without the pheasant release program (249).

INTRODUCTION

The Michigan Legislature passed Public Act 618 of 2018 which created a pheasant (*Phasianus colchicus*) release program. The Michigan Department of Natural Resources (DNR) was provided $260,000 from the general fund to administer the program. This funding included $180,000 for purchasing about 11,800 male pheasants (5,800 birds per year) that would be released on selected Southern Lower Peninsula (SLP) state game areas during the fall of 2019 and winter of 2020. The purpose of the release program was to improve hunting opportunities and to recruit, retain, and reactivate small game hunters in Michigan.

Pheasants could be hunted from October 20 through November 14 on 13 game areas across the SLP. In addition, pheasants could be hunted from December 1 through January 1 on a subset of nine SLP game areas located east of the lake effect snow zone (i.e., December Pheasant Management Unit).

Male pheasants (roosters) were released on 13 game areas across the LP (Figure 1) between October 20 and November 19. In addition, roosters were released on the nine games areas in the December Pheasant Management Unit between and December 1, 2019, and January 1, 2020 (Table 1 and Figure 2). Allegan, Cornish, Crane Pond, and Pinconning Township state game areas were not open to pheasant hunting in December because they were located outside the December Pheasant Management Unit.

Pheasants were released outside legal shooting hours beginning on October 19, 2019, and ending November 10, 2019, for the October/November release period. For the December release period, birds were released outside the legal shooting hours between November 30 and December 27. The pheasants were released in partnership with the Michigan Association of Game Breeders and Hunting Preserves. Association members released the birds on a weekly basis at the game areas.

Two game areas (Allegan and Shiawassee River) also hosted a one-day special hunter recruitment event geared towards recruitment and retention of hunters. The hunt at the Allegan State Game Area was held for new or novice hunters ages 12 and up, while the hunt at Shiawassee River State Game Area was held for youth ages 12-17 and new or novice adult hunters.

In order to hunt pheasants in Michigan, hunters were required to obtain a base hunting license (i.e., small game) and a free pheasant and sharp-tailed grouse hunting endorsement. Hunters could harvest up to two birds per day with a possession limit of four birds. There were no daily quotas placed on the number of hunters that could pursue pheasants on any of the release sites, except during the special one-day hunts at Allegan and Shiawassee River.

The DNR was responsible for evaluating the pheasant release program. This evaluation included estimating (1) the number of pheasant hunters pursuing small game on the 13 state game areas, (2) the number of new hunters pursuing small game, (3), hunter satisfaction with the program, and (4) the level of hunter conflicts (i.e., crowding) resulting from the release of pheasants.

METHODS

In 2019, 216,935 people were eligible to hunt pheasants because they obtained a pheasant/sharp-tailed grouse endorsement. However, excessive distribution of these free endorsements (Frawley 2019a) meant that few of the people that obtained endorsements actually hunted pheasants (see Results). This complicated estimation of the number of people that hunted pheasants using common sampling designs (Cochran 1977); thus, a modified approach was used to develop estimates of participation.

An estimate of the overall number of people hunting pheasants on the 13 game areas was accomplished using methods frequently used in sight-resight (e.g., mark-recapture) studies. These types of studies collect at least two samples from the population and then tally the number of individuals observed in each of the samples. The first sample for our study consisted of the hunters participating during the special one-day hunts at Allegan and Shiawassee River game areas. After the season ended, all hunters that had obtained a pheasant endorsement and had provided an email address (i.e., second sample) were invited via email to complete an online questionnaire (Appendix A) to report their hunting activity at the 13 game areas. The number of hunters in the first sample that reported their hunting activity online was counted. Because the number of hunters in the first sample that also was part of the second sample should be proportional to the number of hunters in the first sample in the whole population, an estimate of the total population size was obtained by dividing the number of hunters in the first sample by the proportion of hunters in the first sample that were also in the second sample (i.e., modified Lincoln-Petersen estimator, Chapman 1951).

The assumption behind mark-recapture methods is that the proportion of marked individuals recaptured in the second sample represents the proportion of marked individuals in the entire population. This assumption could be violated if the individuals in the first sample are either more or less likely to be in the second sample than unmarked individuals. In addition, recapture rates need to be high enough to support an accurate estimate. The estimate of the population size tends to be overestimated if the number of recaptures is small.

Hunters completing the online questionnaire were asked to report whether they hunted pheasants or other small game species (e.g., grouse, woodcock, rabbit, squirrel, and waterfowl), the game area hunted, the number of days spent afield hunting pheasants, and the number of pheasants harvested. Hunters described how crowded their hunt area was with other hunters. Hunters also reported how satisfied they were with the availability of parking, the number of pheasants seen, the number of pheasants harvested, and their overall pheasant hunting experience.

The answers provided by the hunters that completed the online questionnaire were extrapolated to the estimated overall number of pheasant hunters on the 13 areas using a simple random sampling design (Cochran 1977). These estimates were conditional on our ability to correctly estimate the overall number of pheasant hunters on the 13 areas. A 95% confidence limit (CL) was calculated for each estimate. The CL can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies that the true value would be within this interval 95 times out of 100. Unfortunately, there are several other possible sources of error in surveys that are probably more serious than theoretical calculations of sampling error. They include the failure of participants to provide answers (nonresponse bias), question-wording, and question order. It is very difficult to measure these biases; thus, estimates were not adjusted for these possible biases.

Statistical tests are used routinely to determine the likelihood that the differences among estimates are larger than expected by chance alone. The overlap of the 95% confidence intervals was used to determine whether estimates differed significantly. Non-overlapping 95% confidence intervals were equivalent to stating that the difference between the means was larger than would be expected 95 out of 100 times if the study had been repeated (Payton et al. 2003).

RESULTS AND DISCUSSION

An email invitation to complete the online questionnaire was sent on January 13, 2020, to hunters eligible to hunt pheasants. Of the 60,664 email invitations sent to hunters, 721 were undeliverable, resulting in an adjusted sample size of 59,943. Completed online questionnaires were received from 1,471 people, and 1,457 of these responses were from people that had received an email invitation (2.4% adjusted response rate [1,457/59,943]). This response rate was lower than the response rate for the most recently completed small game harvest survey (43% response rate, Frawley 2019b).

Seventy-seven people hunted pheasants during the special one-day hunts at Allegan and Shiawassee River game areas (i.e., first sample for the mark-recapture study). Online questionnaires were completed by 584 people that had hunted pheasants on one of the 13 game areas (i.e., second sample), and 15 of the hunters in the first sample completed the questionnaire. Using this information, an estimated 2,851 ± 1,192 people hunted pheasants on the 13 game areas in 2019. For comparison, an estimated 16,443 people hunted wild pheasants statewide in 2017 (Frawley 2019b).

About 1.3% of the people that were eligible to hunt pheasants (i.e., obtained the pheasant endorsement) hunted pheasants on one of the game areas (i.e., 2,851/216,935). Thus, identifying potential pheasant hunters that may hunt stocked pheasants by requiring them to obtain a free endorsement was not very efficient.

Most of the people hunting stocked pheasants were male (97 ± 1%), and the average age of hunters was 48 years (± 1 year). Less than 1% (±0.5%) of the hunters were younger than 17 years old. In comparison, 93% of the active small game hunters in 2017 were males, and the average age of active small game hunters was 48 years. Also, about 11% of the active small game hunters were less than 17 years old.

Pheasant hunters spent 11,902 days afield ($\bar{x}$ = 4.2 days/hunter) on the 13 game areas (Table 2). Hunters harvested an estimated 4,887 pheasants. Thus, about 84% of the released roosters were harvested (i.e., 4,887/5,800). The estimated harvest rate was higher than the 54-62% harvest rate reported for roosters released on game areas in Pennsylvania (Diefenbach et al. 2000, Johnson and Boyd 2017). Because the pheasant harvest rate in Michigan was substantially greater than estimates from Pennsylvania, the harvest of pheasants was likely overestimated in Michigan. This overestimate likely occurred because unsuccessful hunters were less likely to complete the online survey than successful hunters (i.e., nonresponse bias) and hunting partners may have reported taking the same bird (Frawley 2013, 2014). In contrast, the studies (i.e., banding studies) done in Pennsylvania were less susceptible to non-response bias.

Most pheasant hunters (76% ± 3%) hunted at a single small game area, while 18% ± 3% hunted at two areas, 4% ± 2% hunted at three areas, and 2% ± 1% hunted at more than three areas. Rose Lake and Lapeer game areas had the highest number of pheasant hunters and pheasant harvested during 2019 (Figure 3, Table 2). About 752 people (26% ± 3%) pursued pheasants on the Rose Lake Game Area and harvested 1,762 birds, while 610 people (21% ± 3%) pursued pheasants on the Lapeer Game Area and harvested 532 birds. About 53% of hunters took at least one pheasant on one of the 13 game areas. Hunter's success ranged from 34-67% among the game areas (Table 2).

The mean distance between the game areas where pheasants were released and hunters' residence was generally less than 40 miles (Figure 4). Responsive Management and National Shooting Sports Foundation (2010) reported 54% of Michigan hunters (all forms of hunting) traveled no more than 30 miles, 16% traveled 31-60 miles, and 30% traveled more than 60 miles to their hunt area. The distance traveled by hunters using most game areas appeared similar; except hunters using Minden City appeared to travel more miles than the typical hunter. The greater distance traveled by hunters at Minden City probably occurred because this area was located farther from urban areas than other game areas.

Overall, 21% of pheasant hunters indicated that crowding among hunters was a serious problem (i.e., extremely crowded conditions) where they had hunted. The proportion of hunters that reported that crowding among hunters was a serious problem ranged from 8% to 30% on the game areas (Table 3).

About 45% of pheasant hunters on all areas combined were satisfied (i.e., either very satisfied or somewhat satisfied) with the number of pheasants seen during the 2019 hunting season (Table 4), and 41% were satisfied with the number of pheasants harvested (Table 5). About 58% of pheasant hunters were satisfied with their overall hunting experience (Table 6). In comparison, about 46% of statewide small game hunters (all small game species combined)

were satisfied with the amount of small game seen during the 2017 hunting season, 30% were satisfied with the number of animals harvested, and 63% of small game hunters were satisfied with their overall hunting experience (Frawley 2019b).

In general, pheasant hunter satisfaction in 2019 was highest among people hunting at Crane Pond and Rose Lake game areas and lowest among hunters at Lapeer, Minden City, Pinconning, and Pointe Mouillee game areas. In comparison, about 46% of small game hunters were satisfied with the number of pheasants seen during the 2019 hunting season (Table 4), and 41% were satisfied with the number of pheasants harvested

About 70% of pheasant hunters were satisfied with the availability of parking areas on the game areas during the 2019 hunting season (Table 7). In general, satisfaction with parking areas was greater than 60% in most areas. However, 33-38% of the hunters at the Erie and Pinconning Township game areas were dissatisfied with the parking on these areas.

Hunter's satisfaction can be affected by many factors such as hunting success and whether hunting activities were completed without interference. Hunter's overall satisfaction was significantly correlated with their satisfaction with the number of pheasants seen (correlation [r]=0.89, $P<0.01$; Figure 5), satisfaction with the number of pheasants harvested (r=0.82, $P<0.01$; Figure 6), and hunting success (r=0.64, P=0.02; Figure 7). Conversely, overall satisfaction was not significantly correlated with the proportion of hunters reporting extremely crowded conditions at an area (r=-0.24, P=0.44; Figure 8).

About 33% (±3%) of the people that hunted pheasants on one of the 13 game areas in 2019 (928 ± 97) reported that they also had hunted other small game species (e.g., rabbits, squirrels, and waterfowl) on the game areas in 2019. Conversely, about 67% (±3%) of the pheasant hunters on the 13 game areas had not hunted any other small game species (1,923 ± 97).

About 97% (±1%) of the people that hunted pheasants on the 13 game areas in 2019 (2,763 ± 36) reported that they have hunted small game previously during their lifetime. By contrast, 3% (±1%) of the pheasant hunters indicated that they had never hunted small game previously (i.e., 88 ± 36 new small game hunters). Among these 88 new hunters, 44 ± 25 reported that they would not have hunted small game if pheasants had not been released on the game areas and 24 ± 19 were not sure if they would have hunted.

Excluding the new small game hunters, 98% ± 1% of the pheasant hunters had hunted small game at least one year during the previous five years (2,700 ± 46). In contrast, about 2% (±1%) of the pheasant hunters had not hunted small game during the previous five years (i.e., 63 ± 30 reactivated small game hunters). Among these 63 reactivated hunters, 59 ± 29 reported that they would not have hunted small game if pheasants had not been released on the game areas.

Most pheasant hunters on the 13 areas usually hunted alone (42% ± 4%) or with one other person (35% ± 4%). In addition, 16% ± 3% of the pheasant hunters normally hunted with two hunting partners and 7% ± 2% normally hunted with more than two hunting partners.

About 38% ± 4% of the pheasant hunters reported that they still would have hunted pheasants (either wild or stocked birds) during 2019 even if pheasants hadn't been released on the 13 game areas (1,079 ± 100). Conversely, 50% ± 4% of the pheasant hunters on the game areas indicated they would not have hunted pheasants in 2019 without the release program (1,421 ± 103) and 12% ± 2% were uncertain if they would have hunted without the release program (351 ± 68).

About 70% ± 3% of the pheasant hunters reported that they still would have hunted other small game species (e.g., rabbits, squirrels, and waterfowl) during 2019 even if pheasants hadn't been released on the 13 game areas (1,982 ± 95). Conversely, 22% ± 3% of the pheasant hunters on the game areas indicated they would not have hunted any small game species in 2019 without the pheasant release program (620 ± 85) and 9% ± 2% were uncertain if they would have hunted small game without the pheasant release program (249 ± 58).

ACKNOWLEDGEMENTS

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Figure 1. The locations of the 13 game areas where pheasants were released in Michigan during 2019.

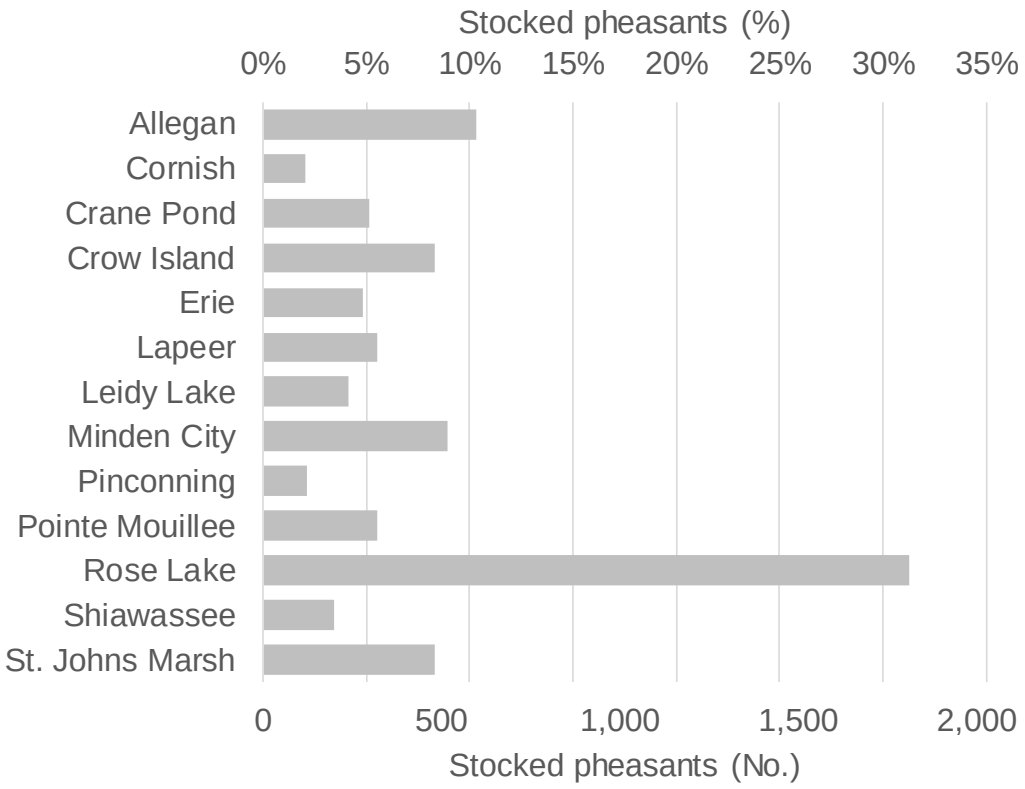

Figure 2. The number and proportion of pheasants released on each game area in Michigan during 2019. A total of 5,800 pheasants were released at the 13 game areas.

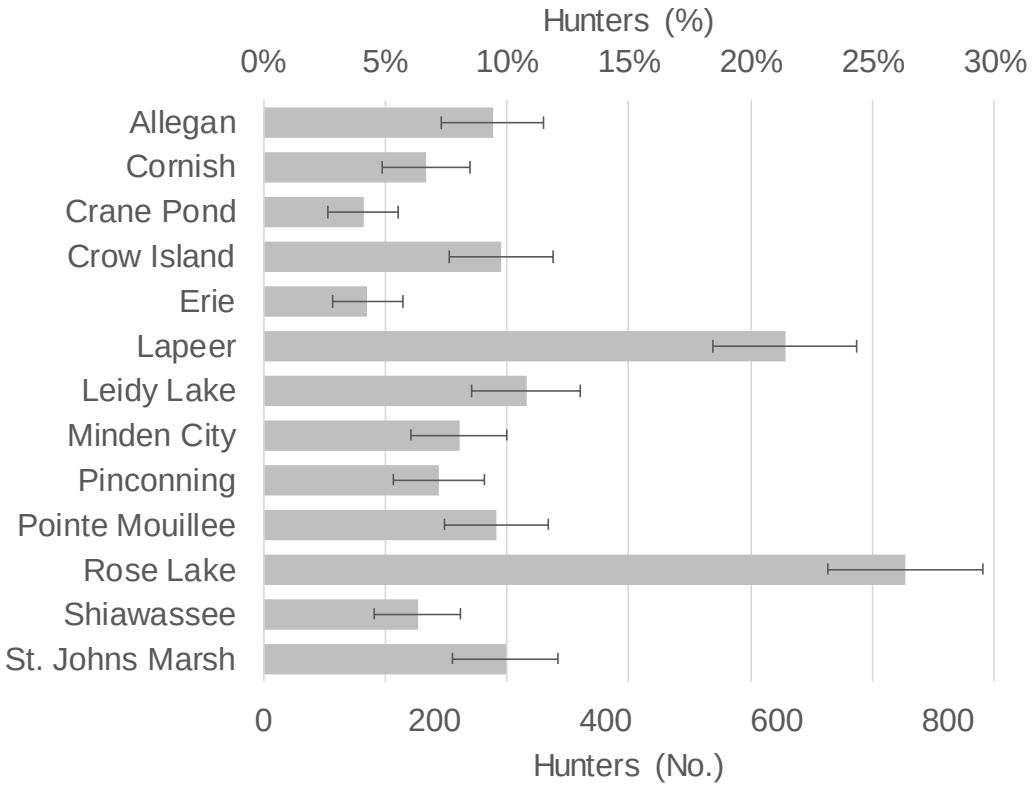

Figure 3. The number and proportion of pheasant hunters on each game area in 2019. The error bars represent the 95% confidence intervals. An estimated 2,851 people hunted pheasants at the 13 game areas combined in 2019.

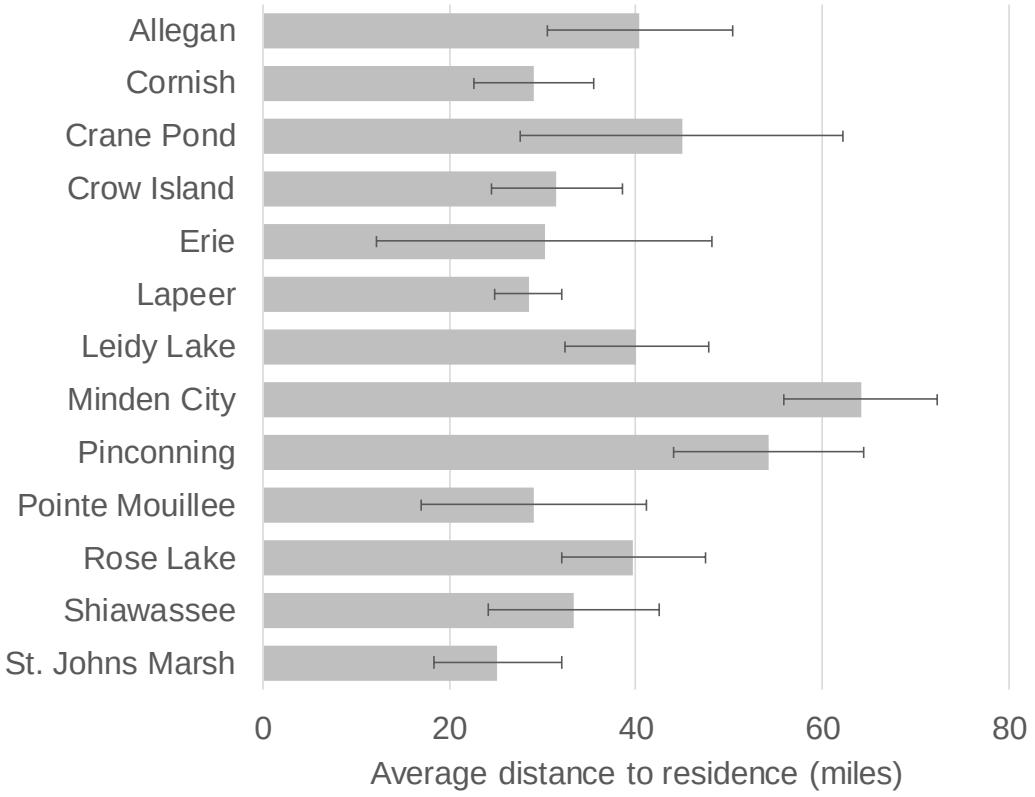

Figure 4 The mean distance between hunters' residence and game area where the person hunted stocked pheasants, summarized separately by hunting area where hunting occurred in 2019.

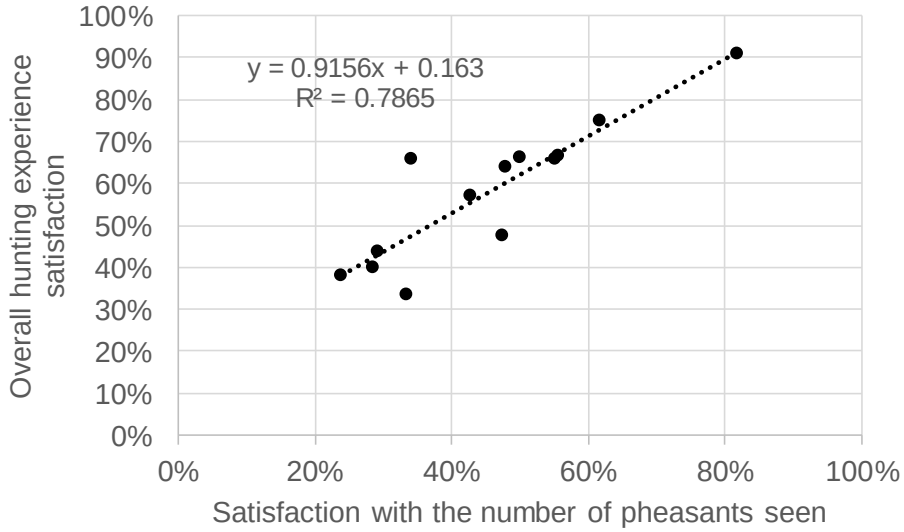

Figure 5. The relationship between the hunter's satisfaction with their overall hunting experience and satisfaction with the number of pheasants seen on the 13 game areas in 2019 (correlation [r]=0.89, P<0.01).

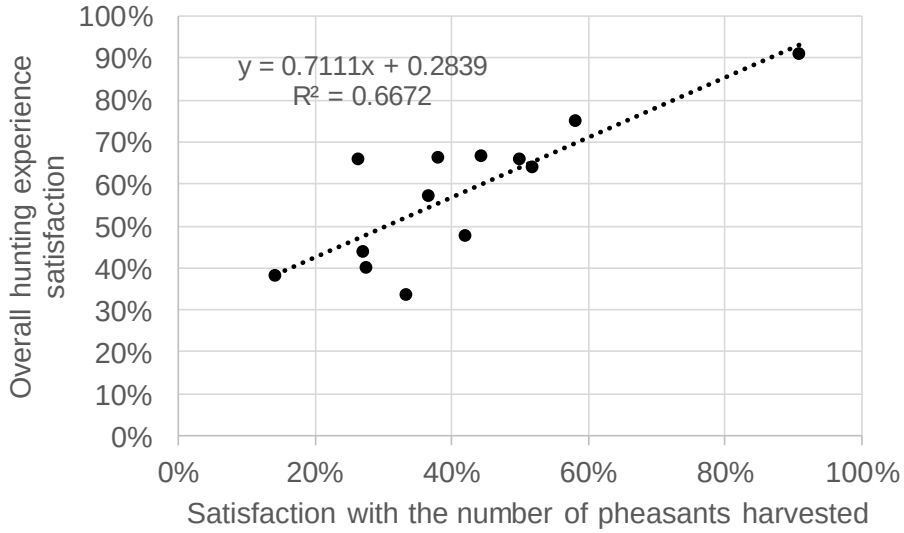

Figure 6. The relationship between the hunter overall hunting experience satisfaction and satisfaction with the number of pheasants harvested on each area in 2019 (r=0.82, P<0.01).

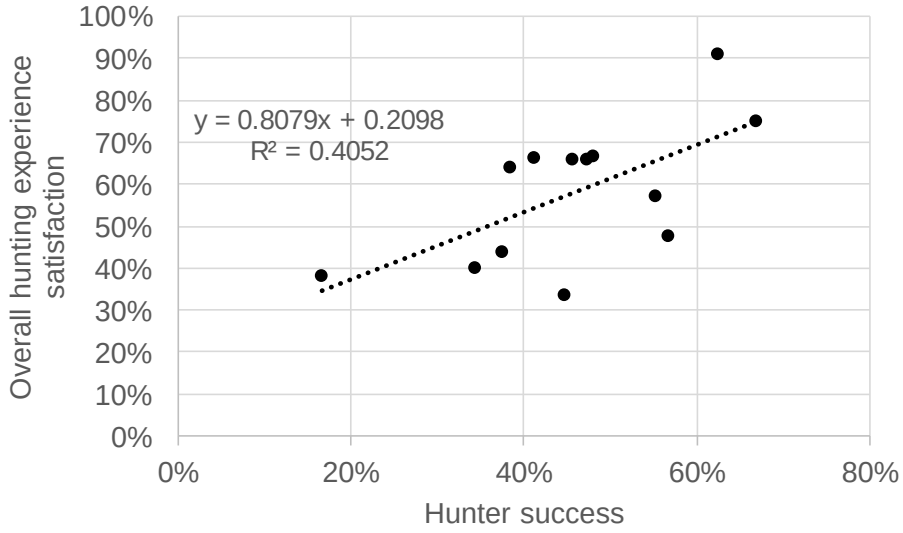

Figure 7. The relationship between the hunter overall hunting experience satisfaction and hunting success on each game area in 2019 (r=0.64, P=0.02).

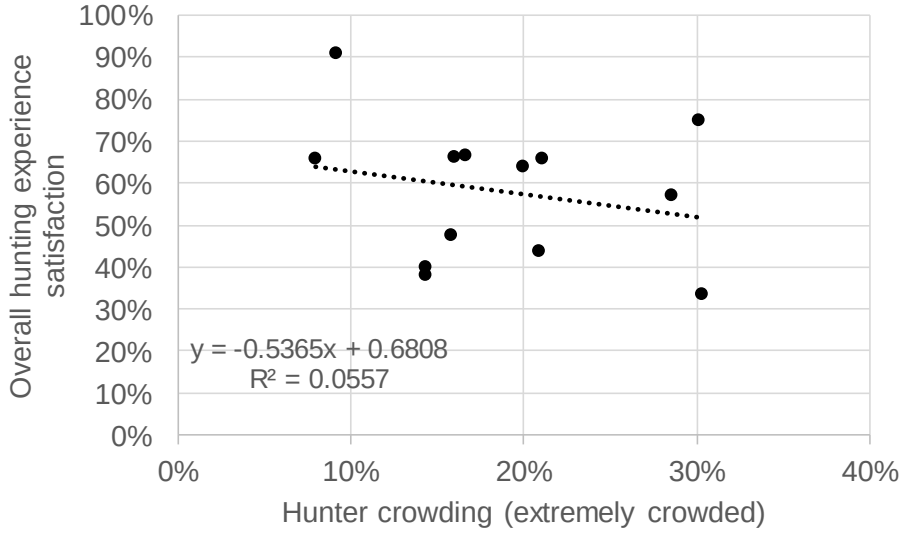

Figure 8. The relationship between the hunter overall hunting experience satisfaction and the proportion of hunters that reported extreme crowding among hunters on each of the game areas in 2019 (r=-0.24, P=0.44).

Table 1. The number of pheasants released on state game areas in 2019.

Game area	Pheasants released in October-November	Pheasants released in December[a]	Pheasants released per release	Total number of pheasants released
Allegan	600	0	600	600
Cornish	120	0	30	120
Crane Pond	300	0	75	300
Crow Island	240	240	60	480
Erie	140	140	35	280
Lapeer	160	160	40	320
Leidy Lake	120	120	30	240
Minden City	260	260	65	520
Pinconning Twp.	124	0	31	124
Pointe Mouillee	160	160	40	320
Rose Lake	908	908	227	1,816
Shiawassee	0	200	200	200
St. Johns Marsh	240	240	60	480
Total	3,372	2,428	NA	5,800

[a]Pheasants were not released in December at Allegan, Cornish, Crane Pond, and Pinconning Township game areas because they were outside the December Pheasant Management Area.

Table 2. Estimated number of hunters, harvest, mean harvest per hunter, hunter success, hunting effort, and mean days hunted during the 2019 Michigan stocked pheasant hunts, summarized by state game area.

	Hunters		Harvest		Harvest per hunter ($\bar{x}$)		Hunter success		Hunting effort (days)		Days hunted per hunter ($\bar{x}$)	
Game area	No.	95% CL[a]	No.	95% CL[a]	No.	95% CL[a]	%	95% CL[a]	Days	95% CL[a]	Days	95% CL[a]
Allegan	269	60	303	121	1.1	0.4	47	12	625	198	2.3	0.5
Cornish	190	52	176	95	0.9	0.4	38	14	430	144	2.3	0.4
Crane Pond	117	41	122	60	1.0	0.4	63	17	215	87	1.8	0.4
Crow Island	278	61	293	129	1.1	0.4	46	12	1,025	357	3.7	1.0
Erie	122	42	308	174	2.5	1.1	48	17	434	185	3.6	0.9
Lapeer	610	85	532	169	0.9	0.2	34	7	2,031	386	3.3	0.4
Leidy Lake	308	64	254	94	0.8	0.3	41	11	840	231	2.7	0.5
Minden City	229	56	249	113	1.1	0.4	45	13	503	156	2.2	0.4
Pinconning Twp.	205	53	59	42	0.3	0.2	17	10	410	131	2.0	0.4
Pointe Mouillee	273	61	234	118	0.9	0.4	38	11	874	274	3.2	0.7
Rose Lake	752	91	1,762	349	2.3	0.4	67	7	2,958	589	3.9	0.6
Shiawassee	181	50	239	113	1.3	0.5	57	14	683	327	3.8	1.5
St. Johns Marsh	283	62	356	132	1.3	0.4	55	11	874	251	3.1	0.6
Total[b]	2,851	1,192	4,887	515	1.7	0.2	53	4	11,902	857	4.2	0.3

[a]95% confidence limits.

[b]Column totals may not equal totals for all hunts because of rounding error.

Table 3. The level of crowding among pheasant hunters on game areas in 2019.

	Not at all crowded		Slightly crowded		Moderately crowded		Extremely crowded	
Game area	%	95% CL[a]	%	95% CL[a]	%	95% CL[a]	%	95% CL[a]
Allegan	29	13	24	12	26	12	21	12
Cornish	20	14	36	17	24	15	20	14
Crane Pond	36	25	36	25	18	20	9	15
Crow Island	24	12	42	14	26	12	8	8
Erie	22	17	33	19	28	18	17	15
Lapeer	19	7	38	9	29	8	14	6
Leidy Lake	26	11	26	11	32	12	16	9
Minden City	18	12	27	14	24	13	30	14
Pinconning Twp.	43	19	19	15	24	16	14	13
Pointe Mouillee	25	11	25	11	29	11	21	10
Rose Lake	12	5	15	5	43	7	30	7
Shiawassee	26	18	26	18	32	19	16	15
St. Johns Marsh	18	10	24	11	29	11	29	11
Total	21	3	27	3	31	3	21	3

[a]95% confidence limits.

Table 4. The level of satisfaction with the number of pheasants seen by hunters on game areas in 2019.

	Satisfied		Neutral		Dissatisfied	
Game area	%	95% CL[a]	%	95% CL[a]	%	95% CL[a]
Allegan	55	14	24	12	21	12
Cornish	48	17	12	11	40	17
Crane Pond	82	20	9	15	9	15
Crow Island	34	13	18	11	47	14
Erie	56	20	6	9	39	20
Lapeer	29	8	9	5	62	9
Leidy Lake	50	12	10	7	40	12
Minden City	33	14	21	12	45	15
Pinconning Twp.	24	16	10	11	67	18
Pointe Mouillee	29	11	8	7	63	12
Rose Lake	62	7	13	5	26	7
Shiawassee	47	20	11	12	42	20
St. Johns Marsh	43	12	8	7	49	12
Total	45	4	12	2	43	4

[a]95% confidence limits.

Table 5. The level of satisfaction with the number of pheasants harvested by hunters on game areas in 2019.

	Satisfied		Neutral		Dissatisfied	
Game area	%	95% CL[a]	%	95% CL[a]	%	95% CL[a]
Allegan	50	14	18	11	32	13
Cornish	52	17	12	11	36	17
Crane Pond	91	15	0	0	9	15
Crow Island	26	12	26	12	47	14
Erie	44	20	11	13	44	20
Lapeer	28	8	12	6	60	9
Leidy Lake	38	12	16	9	46	12
Minden City	33	14	21	12	45	15
Pinconning Twp.	14	13	19	15	67	18
Pointe Mouillee	27	11	25	11	48	13
Rose Lake	58	7	16	6	26	7
Shiawassee	42	20	26	18	32	19
St. Johns Marsh	37	12	22	10	41	12
Total	41	4	18	3	42	4

[a]95% confidence limits.

Table 6. The level of satisfaction with the overall pheasant hunting experience by hunters on game areas in 2019.

	Satisfied		Neutral		Dissatisfied	
Game area	%	95% CL[a]	%	95% CL[a]	%	95% CL[a]
Allegan	66	13	18	11	16	10
Cornish	64	17	12	11	24	15
Crane Pond	91	15	9	15	0	0
Crow Island	66	13	13	10	21	12
Erie	67	19	17	15	17	15
Lapeer	40	9	20	7	40	9
Leidy Lake	66	12	8	7	26	11
Minden City	33	14	21	12	45	15
Pinconning Twp.	38	19	38	19	24	16
Pointe Mouillee	44	13	23	11	33	12
Rose Lake	75	6	12	5	13	5
Shiawassee	47	20	32	19	21	16
St. Johns Marsh	57	12	18	10	24	11
Total	58	4	17	3	25	3

[a]95% confidence limits.

Table 7. The level of satisfaction with the availability of parking areas by pheasant hunters on game areas in 2019.

	Satisfied		Neutral		Dissatisfied	
Game area	%	95% CL[a]	%	95% CL[a]	%	95% CL[a]
Allegan	79	12	16	10	5	6
Cornish	64	17	16	13	20	14
Crane Pond	82	20	9	15	9	15
Crow Island	68	13	11	9	21	12
Erie	39	20	28	18	33	19
Lapeer	64	8	26	8	10	5
Leidy Lake	60	12	20	10	20	10
Minden City	64	15	15	11	21	12
Pinconning Twp.	62	19	0	0	38	19
Pointe Mouillee	40	12	33	12	27	11
Rose Lake	88	5	8	4	4	3
Shiawassee	89	12	5	9	5	9
St. Johns Marsh	73	11	16	9	10	8
Total	70	3	16	3	14	3

[a]95% confidence limits.

Appendix A

2019 Michigan Stocked Pheasant Survey Questionnaire

MICHIGAN DEPARTMENT OF NATURAL RESOURCES - WILDLIFE DIVISION
PO BOX 30030 LANSING MI 48909-7530

2019 STOCKED PHEASANT PROGRAM SURVEY

This information is requested under the authority of Part 435, 1994 PA 451, M.C.L. 324.43539.

It is important that you complete and return this questionnaire even if you did not hunt or harvest any pheasant in Michigan during 2019.

1. In 2019, 5,800 farm-reared rooster pheasants were released on 13 state game areas (areas listed below) as part of the Michigan Pheasant Hunting Initiative. Did you attempt to hunt the stocked pheasants on any of these areas during 2019?

1 ☐ Yes 2 ☐ No, *skip the remaining questions.*

2. If you attempted to hunt stocked pheasants on the 13 game areas in 2019, please complete the following table. For each area you hunted, indicate the number of days you hunted and the number of stocked pheasants you personally harvested.

STATE GAME AREA HUNTED	NUMBER OF DAYS HUNTED	NUMBER OF PHEASANTS HARVESTED
1. Allegan State Game Area (Allegan County)		
2. Cornish State Game Area (Van Buren County)		
3. Crane Pond State Game Area (Cass County)		
4. Crow Island State Game Area (Saginaw County)		
5. Erie State Game Area (Monroe County)		
6. Lapeer State Game Area (Lapeer County)		
7. Leidy Lake State Game Area (St. Joseph County)		
8. Minden City State Game Area (Sanilac County)		
9. Pinconning Township State Game Area (Bay County)		
10. Pointe Mouillee State Game Area (Monroe County)		
11. Rose Lake State Game Area (Clinton County)		
12. Shiawassee River State Game Area (Saginaw County)		
13. St. Johns Marsh State Game Area (St. Clair County)		

Questions are continued on next page.

3. **Which of the 13 areas did you hunt for stocked pheasants <u>most frequently</u> in 2019?**

_____ Report area most frequently hunted.

4. **On the area you hunted <u>most frequently</u>, how crowded was the area with other hunters at the time of your pheasant hunt?**

1 ☐ Not at all crowded 2 ☐ Slightly crowded 3 ☐ Moderately crowded 4 ☐ Extremely crowded

5. **Please indicate how satisfied or dissatisfied you were with the following for the pheasant hunting on the area you <u>most frequently</u> hunted:** *(Select one choice per item.)*

	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Strongly Dissatisfied
a. Number of pheasants you saw.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b. Number of pheasants you harvested.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
c. Your overall pheasant hunting experience.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
d. Availability of parking areas.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

6. **Prior to 2019, have you hunted any small game species (for example, wild pheasant, rabbit, squirrel, or waterfowl)?**

1 ☐ Yes 2 ☐ No

7. **During 2014-2018, how many years did you hunt any small game species (e.g., wild pheasant, rabbit, squirrel, and waterfowl)?** _____ Years

8. **How many people did you generally hunt with when you hunted for stocked pheasants on any of the 13 areas?** _____ **<u>Report</u> the total number of people hunting together, including yourself.**

9. **Did you also hunt for other small game species (e.g., rabbit, squirrel, and waterfowl) on any of the 13 areas that you hunted for stocked pheasants?** *(Select one.)*

1 ☐ Yes 2 ☐ No

10. **Would you have hunted <u>pheasants</u> (either wild or stocked birds) during the past year if the stocked pheasants had not been released for hunting on these 13 areas?** *(Select one.)*

1 ☐ Yes 2 ☐ No 3 ☐ Not sure

11. **Would you have hunted <u>other small game species</u> during the past year if the stocked pheasants had not been released for hunting on these 13 areas?** *(Select one.)*

1 ☐ Yes 2 ☐ No 3 ☐ Not sure

Thank you for your help!