

## **2011-12 NJ Firearm Hunter Harvest, Recreational and Economic Survey**

### **Summary**

Firearm license sales in 2011 (69,971) have declined to their lowest point since 1912. Resident firearm hunters live in every county of the state, and 80.3 percent of non-resident firearm hunters reside in the neighboring states of Delaware, New York and Pennsylvania. Although firearm hunters are nearly all male, the number of female hunters (2.4 percent) is increasing. The mean age of licensed firearm hunters is 46.8 years of age. Mail questionnaires were sent to 4,052 firearm hunters licensed during the 2011 calendar year (5.8 percent of all known firearm license holders) requesting harvest, recreational and economic information for the 2011-12 hunting season. Survey results estimated 22,559 firearm hunters actively pursued the 14 small game species and spent in excess of 9.3 million dollars (US, excluding license, permit and stamp fees) during the 2011-12 season. Active firearm hunters harvested an estimated 64,981 northern bobwhite, 21,948 chukar partridge, 35,780 crows, 837 ruffed grouse, 234,748 pheasants, 4,630 woodcock, 387 eastern coyotes, 1,527 red fox, 34,011 gray squirrels, 44,451 rabbits and hares, 1,588 raccoons, 517 opossums, and 16,447 woodchucks while enjoying 286,694 recreation-days afield during 2011-12.

This survey was conducted as part of **Job III-B. Hunter and Trapper Harvest, Recreational and Economic Survey**. This job is included within **Grant Number W-68-R-15, New Jersey Wildlife Research and Management: Project III. Upland Wildlife and Furbearers**.

### **Remarks**

Harvest, recreational and economic data has been collected through mail surveys of 4,500 to 6,500 resident and non-resident, firearm license buyers. The survey has been conducted biennially since fiscal year 2000 (1 July 1999-30 June 2000). The 2009-10 Hunter Harvest Survey mailing database was compiled from a random sample of 2009 firearm hunting license buyers.

### **Methods**

A questionnaire designed to elicit demographic, hunter retention and participation, harvest, effort and economic data was mailed to 5.8 percent of the known firearm hunting population (4,052 resident and non-resident firearm licensees). The survey database was randomly developed from a list of license buyers supplied by the NJ Division of Fish and Wildlife's licensing section. The completed database was reviewed for errors before mailing labels were prepared. Return data were entered into a MS Access database and analyzed using MS Excel.

The total small-game hunter population estimate was based on all survey respondents and is not additive in relation to the 14 game species for which harvest information was requested.

Northern bobwhite hunters were asked where they hunted for released, pen-reared birds (on Division stocked wildlife management areas, semi-wild properties, commercial preserves) as the statewide quail season was closed in 2011-12. Ring-necked pheasant hunters were asked whether they hunted for released, pen-reared birds (on Division stocked wildlife management areas, semi-wild properties, commercial preserves, or individually purchased), or for presumed wild birds on non-stocked public or private lands. All efforts expended toward hunting chukar partridge were presumed a result of released, pen-reared. American woodcock and ruffed grouse hunters were asked whether they hunted in the North or South Zone. Canine hunters were asked whether they hunted during the regular small game season or during the special permit season. Rabbit and hare hunters were asked whether they hunted during the new early season or during the traditional small game season. Gray

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squirrel and woodchuck hunters were asked whether they hunted with a rifle or shotgun. The estimated number of hunters, mean hunter harvest and harvest for these species was based on all respondents who pursued these species, regardless of location or method of harvest.

Survey analyses were combined where target species were similar, such as canines (eastern coyote, gray fox and red fox) and rabbits or hares, or where hunting occurred only at night (opossum or raccoon).

### Discussion

#### Firearm License Sales

New Jersey firearm license sales reached its historical apex in 1930 when 199,234 licenses were issued. Following the Depression-era low of 80,484 (1933), sales increased to its post-World War II peak of 190,418 (1971). Eligible National Guard personnel have been entitled to free licenses, permits and stamps since 1994. Disabled Veterans have been similarly entitled since 2000. Youth hunters in the 10 through 15-year old age class have received a firearm license upon completion of a hunter safety course since 2000. Youth licenses are valid through the calendar year in which the holder reaches the age of 16 years. The Jr./Sr. Firearm License was discontinued in 2000 and replaced by the Senior Firearm License (2000). A summary of New Jersey firearm hunting license sales for the last ten years is provided in Table 1. Firearm license sales have declined 13.0 percent during the period 2002-2011, inclusive.

*Table 1. New Jersey hunting licenses sales by category and calendar year (2002 – 2011).*

Year	All Around Sportsman	Resident Firearm	Youth Firearm	Jr./Sr. Hunting	Total Resident Licenses	Non-Res. Small Game	Non-Resident Hunting	Total Firearm Licenses
2002	15,663	54,106		6,319	76,088	939	3,207	80,234
2003	15,628	52,315		6,418	74,361	851	3,299	78,511
2004	15,437	50,188		6,538	72,163	965	3,330	76,458
2005	14,997	48,594		6,635	70,226	944	3,359	74,529
2006	15,470	47,340		7,198	70,008	943	3,592	74,543
2007	15,688	43,232		7,441	66,361	730	3,576	70,667
2008	15,226	43,593		7,578	66,397	857	3,563	70,817
2009	15,730	42,616	1,903	7,854	68,103	838	3,651	72,592
2010	16,280	41,503		8,022	65,805	832	3,838	70,475
2011	16,418	39,225	1,653	8,145	65,441	878	3,652	69,971

#### License Sampling

Six types of firearm licenses are issued in New Jersey (Resident Firearm [RF], All-Around Sportsmen [AA], Senior Resident Firearm [SF], Non-Resident Firearm [NF], Non-Resident Two-day Small Game [NRSG] and Youth Firearm [YF]). License issuance (2011) from all firearm licenses totaled 69,833. The object was to obtain information from approximately 2 percent of the firearm hunter population. Of the 4,052 survey forms mailed, only 112 (2.8 percent) were returned as undeliverable compared to 116 (2.5 percent) of the 4,067 surveys mailed in 2009.

Non-delivery was greatly reduced through the computerization of the Division's license sale process (Point-of-Sale, POS) that was fully implemented in 2007. POS eliminated issues of handwriting legibility and insufficient address. The mailing database was available more readily, thereby saving Division personnel time and effort, and likely reduced the number of surveys returned due to

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recipient mobility. Of the 3,940 questionnaires delivered, 1,434 (36.4 percent) were completed and returned within the acceptable period.

### Age of Firearm Hunters

Firearm hunter ages were calculated based on the date of birth provided on their 2011 hunting license. Firearm hunters had a mean of 46.76 years (n = 69,834), as of 26 September 2011. Table 2 illustrates recipient age classes. New Jersey's hunters are aging, but are also continuing to hunt longer in life. Recruitment of younger hunters (less than 34 years of age) and retention of existing hunters will present future challenges to the NJ Division of Fish and Wildlife.

Table 2. Age class of New Jersey firearm license hunters, by license type (2011)

Age Class	AA	RF	SF	NF	NR2D	YF	Total	% Total
< 16	0	0	0	0	0	1,643	1,643	2.3%
16 to 24	949	5,099	0	205	89	9	6,351	9.1%
25 to 29	825	2,885	0	172	50	0	3,932	5.6%
30 to 34	1,181	2,715	0	253	61	0	4,270	6.1%
35 to 39	1,601	3,156	0	305	64	0	5,126	7.3%
40 to 44	2,410	4,529	0	420	98	0	7,457	10.7%
45 to 49	2,729	5,877	0	484	96	0	9,186	13.1%
50 to 54	2,637	5,955	0	520	90	0	9,202	13.2%
55 to 59	1,966	4,679	0	443	70	0	7,158	10.3%
60 to 64	1,710	3,702	0	358	52	0	5,822	8.3%
≥ 65	403	578	8,143	491	70	0	9,685	13.9%
Unknown	0	0	0	1	0	0	2	0.0%
<b>Total</b>	<b>16,412</b>	<b>39,235</b>	<b>8,143</b>	<b>3,652</b>	<b>740</b>	<b>1,652</b>	<b>69,834</b>	<b>100.0%</b>
<b>Mean</b>	<b>45.7</b>	<b>43.2</b>	<b>72.0</b>	<b>48.7</b>	<b>44.4</b>	<b>12.6</b>	<b>46.8</b>	
<b>SE</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.5</b>	<b>1.1</b>	<b>0.1</b>		

### Residence

New Jersey residents constitute the majority of firearm license buyers (65,196 or 99.6 percent). Firearm hunter numbers by county range from 719 (Hudson) to 5,997 (Ocean). More firearm hunters reside in the state's northern region (39.6 percent) than its central (32.1 percent) or southern (28.3 percent) regions<sup>1</sup>. Hunters from 47 US states, one district or territory and one foreign nation purchased a 2011 New Jersey hunting license. The neighboring states of Delaware, New York and Pennsylvania totaled 3,526 (76.8 percent of the 4,593 non-resident license buyers). Over one-half of non-resident firearm hunters (2,567 or 55.9 percent) came from Pennsylvania in 2011. The information is provided in Table 3 and Table 4.

<sup>1</sup> Northern region includes counties of Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex, Union and Warren; Central region includes counties of Burlington, Mercer, Middlesex, Monmouth and Ocean; Southern region includes counties of Atlantic, Camden, Cape May, Cumberland, Gloucester and Salem.

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Table 3. New Jersey resident firearm hunters, by license type and county (2011)

County	AA	RF	SF	NF	NRSG	YF	Total	% Total
Atlantic	672	2,342	479	0	0	92	3,585	5.48%
Bergen	528	1,624	391	0	0	53	2,596	3.97%
Burlington	1,470	2,916	599	0	0	96	5,081	7.76%
Camden	629	1,815	349	0	0	80	2,873	4.39%
Cape May	220	1,177	215	0	0	44	1,656	2.53%
Cumberland	860	2,577	442	0	0	107	3,986	6.09%
Essex	250	725	197	0	0	30	1,202	1.84%
Gloucester	913	458	359	0	0	112	3,842	5.87%
Hudson	139	481	94	0	0	5	719	1.10%
Hunterdon	926	1,711	420	0	0	63	3,120	4.77%
Mercer	612	1,261	323	0	1	37	2,233	3.41%
Middlesex	946	2,089	498	0	0	57	3,590	5.49%
Monmouth	993	2,461	477	0	0	96	4,027	6.15%
Morris	1,335	2,255	544	0	0	98	4,232	6.47%
Ocean	1,256	3,812	782	0	0	147	5,997	9.16%
Passaic	699	1,265	285	0	0	51	2,300	3.51%
Salem	580	1,572	269	0	0	68	2,489	3.80%
Somerset	509	1,059	556	0	0	42	1,866	2.85%
Sussex	1,548	2,607	539	0	1	136	4,830	7.38%
Union	313	950	213	1	0	25	1,502	2.30%
Warren	999	2,005	411	0	0	53	3,468	5.30%
Unknown NJ	2	0	0	0	0	1	2	0.00
Non-NJ	13	73	0	0		159	246	0.38
Total	16,412	39,235	8,143	1	3	1,652	65,442	100.0%
% Total	25.1%	60.0%	12.4	0.0	---	2.5%	100.0%	

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Table 4. New Jersey firearm hunters, by state (2011)

State	AA	RF	SF	NF	NRSG	YF	Total	% Total
Alabama	0	0	0	6	0	0	7	---
Alaska	0	2	0	3	0	0	11	---
Arizona	0	0	0	6	0	0	8	---
Arkansas	0	1	0	3	0	0	8	---
California	0	1	0	11	5	0	16	---
Colorado	0	0	0	6	7	0	11	---
Connecticut	0	0	0	49	56	2	83	0.1%
Delaware	0	4	0	293	9	7	330	0.5%
DC	0	0	0	2	5	0	2	---
Florida	0	1	0	129	15	5	155	0.2%
Georgia	0	1	0	14	6	0	22	---
Hawaii	0	0	0	2	0	0	2	---
Idaho	0	1	0	2	0	0	6	---
Illinois	0	3	0	3	8	0	10	---
Indiana	0	1	0	2	4	0	7	---
Iowa	0	0	0	3	1	0	4	---
Kansas	0	0	0	0	0	0	0	0.0%
Kentucky	0	0	0	4	1	0	5	---
Louisiana	0	1	0	7	3	0	17	---
Maine	1	1	0	61	15	2	75	0.1%
Maryland	1	3	0	89	40	7	141	0.2%
Massachusetts	0	0	0	53	9	2	61	0.1%
Michigan	0	1	0	5	8	0	12	---
Minnesota	0	0	0	1	3	0	4	---
Mississippi	0	0	0	4	2	0	4	---
Missouri	0	0	0	5	1	0	6	---
Montana	0	1	0	4	2	0	7	---
Nebraska	0	0	0	0	0	0	0	0.0%
Nevada	0	0	0	3	1	0	4	---
New Hampshire	0	0	0	46	6	0	52	0.1%
New Jersey	16,400	39,162	8,142	37	6	1,493	65,240	93.4%
New Mexico	0	0	0	1	1	0	2	---
New York	1	9	0	522	76	21	629	0.9%
North Carolina	0	4	0	30	27	0	61	0.1%
North Dakota	0	0	0	0	0	0	0	0.0%
Ohio	0	2	0	13	6	3	24	---
Oklahoma	0	1	0	0	0	0	1	---
Oregon	0	0	0	5	0	0	5	---
Pennsylvania	6	24	1	2,070	359	107	2,567	3.7%
Puerto Rico	0	0	0	0	0	0	0	0.0%
Rhode Island	0	0	0	19	4	0	23	---
South Carolina	0	0	0	18	5	0	23	---
South Dakota	0	0	0	3	0	0	3	---
Tennessee	0	0	0	17	4	0	21	---
Texas	1	1	0	10	5	1	18	---
Utah	0	0	0	1	0	0	1	---
Vermont	0	0	0	43	2	0	45	0.1%
Virgin Islands	0	0	0	0	0	0	0	0.0%
Virginia	2	5	0	30	30	0	69	0.1%
Washington	0	0	0	2	0	1	2	---
West Virginia	0	2	0	3	1	0	6	---
Wisconsin	0	3	0	1	5	0	9	---
Wyoming	0	0	0	1	1	0	2	---
Unknown (US)	0	0	6	0	0	0	0	0.0%
Canada	0	0	0	9	3	0	12	---

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Total	16,412	39,235	8,143	3,651	740	1,652	69,833	100.0%
	23.5%	56.2%	11.7%	5.2%	1.1%	2.4%	100.0%	

### Gender

Prior surveys have shown hunting to be a male dominated activity. According to the 2004 survey, 1.4 percent of firearm hunters were female. Gender information for 2011 is presented in Table 5 below. Outreach programs such as Becoming an Outdoor Woman (BOW) may be encouraging participation by females.

*Table 5. Gender of New Jersey firearm hunters, by license type (2011)*

Gender	AA	RF	SF	NF	NRSG	YF	Total	% Total
Male	16,208	38,085	8,085	3,600	724	1,419	68,121	97.6%
Female	202	1,146	57	50	15	233	1,703	2.4%
Unknown	2	4	1	1	1	0	9	0.01%
Total	16,412	39,235	8,143	3,651	740	1,652	69,833	100.0%
% Female	1.2%	2.9%	0.7%	1.4%	2.0%	14.1%	2.4%	

### Hunting Club Membership

Survey recipients were not asked if they belonged to a New Jersey hunting club in the current survey. An estimated 24,274 sportsmen belonged to a New Jersey hunting club in 2004 according to that year's survey.

### Hunting Activity and Recreation days

Survey recipients (n = 3,940) were asked if they pursued any of the 14 small game species of interest. Thirty-two percent of survey respondents (458 of 1434) indicated they hunted small game during the 2011-12 season. Therefore, an estimated 22,559 firearm hunters actively pursued small game during the 2011-12 season compared to 25,335 firearm hunters active during the 2009-10 season.

Respondents who indicated pursuing small game were asked to provide the total number of days spent hunting the 14 species for which a hunting season was authorized during 2011-12. Statewide, opening dates and season lengths varied by species. Woodcock had the shortest season (31 days in each zone [North and South], 55 days total) and woodchuck had the longest season (298 days). Sunday hunting is prohibited except on semi-wild properties and commercial shooting preserves for northern bobwhite, pheasants and chukar (124 and 245 days, respectively). The majority (53.9 percent) was active for 10 days or less. Only 10.7 percent of respondents were active for more than 25 days. Mean time afield was 12.7 days  $\pm$  1.1 per hunter. A summary small game hunting activity is presented in Table 6. Survey results estimated that small-game hunting generated 286,694 days of recreation for 22,599 sportsmen during the 2011-12 season.

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Table 6. Recreation days realized by small game hunters in New Jersey during 2011-12.

Number of days	Number of respondents	Percent response	Est. hunters	Cumulative hunters	Percent cumulative hunters
1 to 5	146	31.9%	7,191	7,191	31.9%
6 to 10	101	22.1%	4,975	12,160	53.9%
11 to 15	50	10.9%	2,463	14,629	64.8%
16 to 20	52	11.4%	2,561	17,190	76.2%
21 to 25	21	4.6%	1,034	18,225	80.8%
26 to 30	22	4.8%	1,084	19,308	85.6%
31+	27	5.9%	1,330	20,638	91.5%
Unknown	39	8.5%	1,921	22,559	100.0%
Total	458	100.0%	22,559		

### 2011-12 Harvest

Active small game hunters were asked whether they specifically pursued each of the various small game species available, the number of days spent hunting, the primary county in which they hunted and the number of each species harvested. A summary of the estimated harvest is presented in Table 7. Survey results estimated that 64,981 northern bobwhite, 21,948 chukar partridge, 35,780 crows, 837 ruffed grouse, 234,748 pheasants, 4,630 woodcock, 387 eastern coyote, 1,527 red fox, 34,011 gray squirrel, 44,451 rabbits and hares, 1,588 raccoon, 517 opossum, and 16,447 woodchuck were harvested during the 2011-12 season.

The NJ Division of Fish and Wildlife purchased 11,800 northern bobwhite for the 2011-12 hunting season (80 released pre-season at each of 10 Wildlife Management Areas [WMA] and 5,500 released in-season at each of 2 WMA). The Division's Rockport Pheasant Farm released approximately 38,310 pheasants for release on 23 WMA. These actions provided recreational sport hunting opportunities for the 11,335 sportsmen that purchased a 2011 Pheasant and Quail Stamp, and the 1,653 known Youth Firearm hunters issued a free stamp. The higher than expected harvest estimates of these species on WMA may be a function of the survey (low sample size, hunter bias), natural reproduction of holdover birds, or independent releases by individual hunters.

The U.S. Fish and Wildlife Service estimated there were  $1,000 \pm 50\%$  active woodcock hunters who expended  $2,600 \pm 50\%$  days afield and harvested  $1,900 \pm 63\%$  woodcock in New Jersey during 2011-12 ([Cooper and Rau 2012](#)). Additional information on New Jersey's woodcock resource can be found in the Federal Aid in Wildlife Restoration Report **Job III-A. Migratory Upland Game Bird Surveys**. This job is included within **Grant Number W-68-R-15, New Jersey Wildlife Research and Management: Project III. Upland Wildlife and Furbearers**.

All successful coyote hunters were required by law to report their harvest to a Division Regional Law Enforcement Office within 24 hours. The reported hunter harvest was 80 (bow and arrow – 17; shotgun – 57; muzzleloading rifle – 13). Additional information on the New Jersey's coyote resource can be found in *Appendix 2 (2011-12 NJ Trapper Harvest, Recreational and Economic Survey)*.

Additional information on the New Jersey's opossum and raccoon resources can be found in *Appendix 2 (2011-12 NJ Trapper Harvest, Recreational and Economic Survey)*.

### Semi-wild and Commercial Shooting Preserves

A semi-wild shooting preserve is defined as an area of land, 50 acres or more, with the boundary clearly defined and posted along all boundary line at intervals of not more than 200 feet with signs

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containing the following wording: **Semi-Wild Shooting Preserve – Licensed Under N.J.S.A. 23:3-29** along with the name and address of the licensee. As of 15 August 2012, stocking and harvest reports from 118 operations were returned to the Division's Permit Section. Stocking reports received from these 118 properties (67,075 acres) totaled 41,279 pheasants, 7,291 chukar partridge and 1,945 northern bobwhite. Reported harvests totaled 24,947 pheasants (60.4 percent), 4,099 chukar partridge (56.2 percent) and 863 northern bobwhite (44.4 percent) during 2011-12.

A commercial shooting preserve is defined as an area of land, 50 acres or more, with the boundary clearly defined and posted along all boundary line at intervals of not more than 200 feet with signs containing the following wording: **Commercial Shooting Preserve – Licensed Under N.J.S.A. 23:3-29** along with the name, address and the license number. As of 15 August 2012, stocking and harvest reports from 25 operations were returned to the Division's Permit Section. Stocking reports received from these 25 operations (14,249 acres) totaled 66,409 pheasants, 22,997 chukar partridge, 19,267 northern bobwhite, and 10,250 mallards. Reported harvests totaled 37,069 pheasants (55.8 percent), 14,278 chukar partridge (62.1 percent), 9,446 northern bobwhite (49.0 percent), and 8,262 mallards (80.6 percent).



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Table 7. Estimated 2011-12 harvest by species in New Jersey, based on survey results

Small Game Species	Season length (days)	Estimated number of hunters	Mean hunter harvest	SE	Estimated harvest (low)	Estimated Harvest (high)
Bobwhite quail, Division stocked	62	1,675	21.4	5.2	27,108	44,446
Bobwhite quail, semi-wild stocked	124	788	24.2	7.4	13,232	24,959
Bobwhite quail, commercial preserve	245	739	16.6	5.3	8,328	16,223
Bobwhite quail, hunter stocked	62-79	148	7.0	2.6	643	1,425
Bobwhite quail, wild (public land)	0	99	5.5	1.5	394	690
Bobwhite quail, wild (private land)	0	296	5.8	2.6	952	2,496
<b>Bobwhite total*</b>	<b>62-245</b>	<b>3,054</b>	<b>21.3</b>	<b>3.6</b>	<b>53,903</b>	<b>76,058</b>
Chukar partridge	124-245	2,069	10.6	2.0	17,741	26,156
Crow	124	1,527	23.4	13.7	14,848	56,712
Ruffed grouse	36-56	1,281	0.7	0.5	239	1,436
Pheasant, Division stocked	79	9,654	7.5	0.7	66,111	79,409
Pheasant, semi-wild stocked	124	4,285	20.4	2.5	76,813	98,147
Pheasant, commercial preserve	245	3,251	14.9	2.9	38,855	57,857
Pheasant, hunter stocked	79	2,216	12.1	2.6	20,999	32,724
Pheasant, wild (public land)	79	1,182	2.0	0.5	1,715	3,013
Pheasant, wild (private land)	79	1,527	6.9	2.4	6,781	14,214
<b>Pheasant total*</b>	<b>79-245</b>	<b>16,451</b>	<b>14.3</b>	<b>1.2</b>	<b>215,005</b>	<b>254,492</b>
Woodcock, North Zone	31	936	2.2	1.2	911	3,248
Woodcock, South Zone	31	837	3.4	1.1	1,932	3,720
<b>Woodcock total</b>	<b>55</b>	<b>1,576</b>	<b>2.9</b>	<b>1.0</b>	<b>3,097</b>	<b>6,162</b>
Eastern coyote (including permit)	107	2,660	0.1	0.1	235	553
Gray fox (including permit)	107	1,231	0.0	0.0	0	0
Red fox (including permit)	107	1,970	0.8	0.2	1,067	1,987
<b>Canine total</b>	<b>107</b>	<b>3,152</b>	<b>0.6</b>	<b>0.2</b>	<b>1,367</b>	<b>2,358</b>
Gray squirrel – shotgun only	122	4,482	7.4	0.9	29,277	37,481
Gray squirrel – ML rifle only	86	197	11.7	2.0	1,899	2,698
<b>Squirrel total</b>	<b>122</b>	<b>4,531</b>	<b>7.5</b>	<b>0.9</b>	<b>29,720</b>	<b>38,303</b>
Rabbits and hares, Early season only	42	2,315	4.9	1.1	8,918	13,884
Rabbits and hares, Traditional season	79	4,778	6.5	1.0	26,274	35,682
Rabbits and hares, Extended only	5	1,625	3.7	0.9	4,543	7,376
<b>Rabbit and hare total*</b>	<b>126</b>	<b>5,911</b>	<b>7.5</b>	<b>1.2</b>	<b>37,285</b>	<b>51,618</b>
Opossum	167	49	10.5	9.5	49	985
Raccoon	167	148	10.8	6.4	642	2,535
Woodchuck – rifle or shotgun	182	936	14.8	4.1	10,078	17,702
Woodchuck – shotgun only	122	345	6.3	3.3	1,055	3,312
<b>Woodchuck total</b>	<b>298</b>	<b>1,182</b>	<b>13.9</b>	<b>3.5</b>	<b>12,365</b>	<b>20,528</b>
<b>Grand Total*</b>		<b>22,559</b>				<b>461,907</b>

\* Total figures for northern bobwhite and pheasant were for all respondents who pursued these two species regardless of location. Categorical breakdowns are not additive in relation to the total figure provided. The total, small-game hunter population was based on all survey respondents and is not additive in relation to each separate species.

## Appendix A: 2011-12 NJ Firearm Hunter Harvest, Recreational and Economic Survey

### Hunter Expenditures

Active, small game respondents were asked to estimate their 2011-12 expenditures for items such as food, clothing, gasoline and equipment (but excluding license, permit and stamp fees). The majority of respondents (75.6 percent) expended \$500 or less (mean = \$169). A summary of sportsmen expenditures is presented in Table 8. Survey results estimate that small-game hunting related activities provided over \$9.3 million to the State's economy during 2011-12, compared to 11.1 million in 2009-10. In addition, the NJDFW received \$3.378 million from sales of firearm licenses, pheasant/quail stamps and special coyote permits.

*Table 8. Estimated expenditures (US\$) by licensed New Jersey firearm hunters, 2011-12*

Range (US\$)	# Respondents	% Response	Average Hunter Expenditure (US\$)	Est. Number of Hunters	Total Est. Expenditure (US\$)
0	9	2.1%	\$ 0.00	443	\$ 0
1-100	109	25.8%	\$ 61.51	5827	\$ 358,410
101-200	81	19.9%	\$ 174.59	4330	\$ 755,983
201-300	64	15.2%	\$ 278.75	3241	\$ 953,679
301-400	35	7.3%	\$ 381.14	1871	\$ 713,116
401-500	45	10.7%	\$ 492.44	2406	\$ 1,184,604
501-1,000	47	11.1%	\$ 811.60	2512	\$ 2,039,141
1,001-5,000	31	7.3%	\$ 2,010.48	1657	\$ 3,331,723
> 5,001	0	0.0%	\$ 0.00	0	\$ 0
No response	37	8.8%	Unknown	1978	
<b>Total</b>	<b>422</b>	<b>100.0%</b>	<b>\$ 413.88</b>	<b>22,559</b>	<b>\$ 9,336,569</b>

## Appendix A: 2011-12 NJ Firearm Hunter Harvest, Recreational and Economic Survey

### 2011-12 Hunting season dates, bag limits and regulations

Species	Inclusive Dates	Hunting Hours	Daily Limits	Notes
Bobwhite quail	Closed statewide: except at Peaslee & Greenwood WMA (See Notes)  At Peaslee & Greenwood WMAs Only: Nov. 12-Dec. 3, Dec. 12, 13, 15-31, 2011 and Jan. 2-31, 2012.	Sunrise to ½ hour after sunset	4	8:00 AM start on Nov. 12, 2011.  Quail may be hunted ONLY at Peaslee and Greenwood Forest WMAs. Pheasant and Quail Stamp required.  Season closed in remainder of the state.
Coyote* and Fox, General  All coyote must be reported within 24 hrs.	<b>Bow and Arrow only:</b> Sep. 10 to Nov. 11, 2011 in DMZ Regulation Sets 3A-8. Oct. 1-Nov. 11 in DMZ Regulation Sets 0-3. <b>Firearm or Bow and Arrow:</b> Nov. 12, 2011- March 15, 2012.	½ hour before sunrise to ½ hour after sunset	No limit	8:00 AM start on Nov. 12, 2011. Open Dec. 5-10 and Dec. 14 with restrictions as specified under Small Game Hunting.  Rifle permit required in possession when hunting with muzzleloading rifle (allowed only incidental to deer hunting).
Coyote* and Fox, <b>Special Permit Season</b>  All coyote must be reported within 24 hrs.	<b>Firearm or Bow and Arrow:</b> Jan. 2 to March 15, 2012 (permit required).	Permit holders may hunt day and night with certain restrictions, see <i>Notes</i> at right.	No limit	Calling and standing hunting only. Predator calling device must be in possession. <b>Rifle permit required if hunting with muzzleloading rifle.</b> Between the hours of ½ hour after sunset to ½ hour before sunrise, only 10 or 12 gauge shotguns with #4 to “T” size shot may be used. Coyote/Fox permit required.
Crow	Aug. 8, 2011- Dec. 3, 2011 & Dec. 12 –Mar. 17, 2012. ** on <b>Mon., Thurs., Fri., &amp; Sat. only.</b>	Sunrise to ½ hour after sunset	No limit	Closed Dec. 4-11, 2011.
Gray Squirrel	Sept. 24 to Dec. 3** and Dec. 12, 13, 15-31, 2011 and Jan.2 to Feb. 20, 2012	Sunrise to ½ hour after sunset	5	8:00 AM start on Nov. 12, 2011.

## Appendix A: 2011-12 NJ Firearm Hunter Harvest, Recreational and Economic Survey

Species	Inclusive Dates	Hunting Hours	Daily Limits	Notes
Opossum & Raccoon	Oct. 1, 2011 to Mar. 1, 2012	1 hour after sunset to 1 hour before sunrise	No limit	<b>Rifle permit required if hunting with rifle.</b> 7:41 PM start on Oct. 1 Closed Dec. 5-10 and Dec. 14, 2011.
Pheasant & Chukar	Nov. 12 to Dec. 3 and Dec. 12, 13, 15-31, 2011 and Jan. 2 to Feb. 20, 2012.	Sunrise to ½ hour after sunset	Chukar – 7 Pheasant - 2	8:00 AM start on Nov. 10, 2007. A Pheasant and Quail Stamp is required on designated areas for hunters over age 16.
Rabbit, Hare and Jackrabbit	Sept. 24 to Dec. 3 and Dec. 12, 13, 15-31, 2011 and Jan. 2 to Feb. 20, 2012.	Sunrise to ½ hour after sunset	Cottontail – 4 Hare – 1 Jackrabbit - 1	8:00 AM start on Nov. 12, 2011.
Ruffed Grouse	<b>North of Rt. 70:</b> Oct. 20 to Dec. 3** and Dec. 12, 13, 15-31. <b>South of Rt. 70:</b> Nov. 12 to Dec. 3** and Dec. 12, 13, 15-31.	Sunrise to ½ hour after sunset	2	8:00 AM start on Nov. 12, 2011.
Woodchuck - <b>Bow, Rifle or Shotgun</b>	Mar. 1 to Sept. 28, 2011. Mar. 1 to Sept 26, 2012.	Sunrise to ½ hour after sunset	No limit	Rifle permit required if hunting with rifle. Rifle hunting prohibited on State properties (see Small Game Regulations page XX).
Woodchuck – <b>Bow or Shotgun</b>	Sept. 24 to Dec. 3** and Dec. 12, 13, 15-31, 2007 and Jan. 2 to Feb. 20, 2012	Sunrise to ½ hour after sunset	No limit	8:00 AM start on Nov. 12, 2011.
Woodcock	See Migratory Bird Regulations**	Sunrise to sunset	3 daily; 6 possession.	HIP number required. 8:00 AM start on Nov. 12, 2011.

\* **All harvested coyote must be reported to a regional Division Law Enforcement Office within 24 hours. Callers must identify themselves by name and daytime telephone number.**

\*\* No firearm hunting is permitted on **November 5, 2011** on those WMAs designated as Pheasant and Quail Stamp Areas.

# NJ Division of Fish and Wildlife

## 2011-12 FIREARM HUNTER SURVEY

Dear Fellow Hunter:

This is a copy of the 2011-12 season Firearm Hunter Survey. This survey contains questions about your hunting activities in New Jersey this past (2011-12) season. Kindly take a moment now to complete this survey and return it in the self-addressed envelope provided. Thank you in advance for providing the postage needed. The Division recognizes this inconvenience, but this small act will save us both time and money best directed elsewhere to your benefit.

The information you provide is anonymous. The information we receive in this survey will be used in evaluating, planning and improving hunting seasons in New Jersey and for determining harvest levels and trends for several species. Your reply is important to us even if you **did not** hunt or even if you were not successful harvesting any game this year.

Thank you for completing this questionnaire and for promptly returning it in the envelope provided.

Sincerely,

Larry Herrighty,  
Assistant Director  
NJ Division of Fish and Wildlife

### HOW TO COMPLETE THIS SURVEY

1. Please answer all applicable questions. Answer this questionnaire even if you did not hunt or if you did not harvest any game during the past season.
2. Estimate the number of days hunted or game killed if you don't recall the exact number. Please list specific numbers where they're asked for in days; please don't write in "week" or "month".
3. Please report **only** the game taken by **you**, not the entire hunting party. For example, if you were hunting with a friend who shot two pheasants while you shot only one, you would report 1 pheasant.
4. Record your answers in the space provided after each question.
5. After completing the questionnaire, return it in the envelope provided.

## Appendix A: 2011-12 NJ Firearm Hunter Harvest, Recreational and Economic Survey

### 2011-12 New Jersey Firearm Hunter Harvest Survey

1. Between July 1, 2011 and Feb. 18, 2012, did you hunt upland game in NJ? (Yes / No) \_\_\_\_\_

If you answered **NO** to Question #1, STOP HERE and return the survey. Otherwise please continue.

2. How many *total* days did you spend hunting upland game in NJ during this time? \_\_\_\_\_ Days

3. How much would you estimate you spent while hunting upland game in NJ during this time on food, clothing, gasoline, equipment, etc., (but excluding license, permit & stamp fees)? \$ \_\_\_\_\_ Total spent

Please provide the harvest information requested for each species taken **by you** on the following table. There are several parts to each question, so please take your time completing this portion of the survey.

Upland Small Game Species	A. Hunted specifically for species? (Yes/No)	B. Number of days hunted	D. Number of animals harvested	E. Primary county hunted
4. <b>Bobwhite quail – Division stocked</b> on <i>Public</i> lands (e.g., Greenwood or Peaslee WMA only)				
5. <b>Bobwhite quail – Commercially stocked</b> (e.g., on licensed, COMMERCIAL property only)				
6. <b>Bobwhite quail – Hunt Club stocked</b> (e.g., on licensed SEMI-WILD preserve only)				
7. <b>Bobwhite quail – Privately stocked</b> (e.g., purchased and released for the gun by YOU)				
8. <b>Bobwhite quail - wild</b> birds on <i>Public</i> lands (e.g., not stocked by Div. Fish & Wildlife)				
9. <b>Bobwhite quail - wild</b> birds on PRIVATE lands only (e.g., not Semi-wild, Commercial or self-stocked)				
10. <b>Chukar partridge</b>				
11. <b>Crow</b>				
12. <b>Grouse – North of Rt. 70</b>				
13. <b>Grouse – South of Rt. 70</b>				
14. <b>Woodcock – North of Rt. 70</b>				
15. <b>Woodcock – South of Rt. 70</b>				
16. <b>Pheasant – Division stocked</b> on <i>Public</i> lands (e.g., any of the 23 WMA where Stamp required)				
17. <b>Pheasant – Commercially stocked</b> (e.g., on licensed, COMMERCIAL property only)				
18. <b>Pheasant – Hunt Club stocked</b> (e.g., on licensed SEMI-WILD preserve only)				
19. <b>Pheasant – Privately stocked</b> (e.g., purchased and released for the gun by YOU)				
20. <b>Pheasant - wild</b> birds on <i>Public</i> lands only (e.g., not stocked by Div. Fish & Wildlife)				
21. <b>Pheasant - wild</b> birds on PRIVATE lands only (e.g., not Semi-Wild, Commercial or self-stocked)				
22. <b>Coyote – Regular small game season</b>				
23. <b>Coyote – Special Permit Season only</b>				

## Appendix A: 2011-12 NJ Firearm Hunter Harvest, Recreational and Economic Survey

Upland Small Game Species	A. Hunted specifically for species? (Yes/No)	B. Number of days hunted	D. Number of animals harvested	E. Primary county hunted
24. Gray fox – Regular small game season				
25. Gray fox – Special Permit Season only				
26. Red fox – Regular small game season				
27. Red fox – Special Permit Season only				
28. Rabbits & Hares – Sept. 24 to Nov. 11				
29. Rabbits & Hares – Nov. 12 to Feb. 20				
30. Rabbits & Hares – Feb. 21 to Feb. 25				
31. Opossum				
32. Raccoon				
33. Gray squirrel – Regular small game season				
34. Gray squirrel – Muzzleloader rifle season				
35. Woodchuck – July 1 to Sept. 28 (Rifle)				
36. Woodchuck – Sept. 24 – Feb. 20 (Shotgun)				

The survey is now **complete**. Kindly return the survey in the self-addressed envelope provided, or mail to *NJ Division of Fish and Wildlife, Northern Region Office, 26 Rt. 173 West, Hampton, NJ 08827, Attn: Joseph Garris*. Thank you for participating in this year's Firearm Hunter Survey. Survey results will be posted during Summer 2012 on the Division's website (<http://www.njfishandwildlife.com>). The NJ Division of Fish and Wildlife values your input and the information you provided.