Hunting-Related Shooting Incident (HRSI) Annual Report 2019



Research & Education Division

Table of Contents

2019 Hunting-Related Shooting Incident Summary	5
Hunting-Related Shooting Incidents in Pennsylvania (2000 – 2019)	7
Statewide Totals	8
Charts and Graphs	
Number of Incidents & Injury Type	10
Sporting Arm Used & Species Hunted	11
Offender Age & Offender Experience	12
Weather Conditions & Place of Incident	13
Cover Density & Light Conditions	14
Victim's Position & Victim's Activity	15
Cause of Incidents	16
Incidents Involving Hunter Education Graduates	17
Incident Summaries by Species Hunted	
Deer	19
Small Game	20
Furbearer	21
Waterfowl	22
Bear	23

2019 Hunting-Related Shooting Incidents Summary

Introduction

A hunting-related shooting incident (HRSI) is defined as any occurrence when a person is injured as the result of the discharge of a firearm or bow and arrow during actual hunting or furtaking activities. Often these incidents result from failing to follow some very basic safety rules. While one incident is one too many, the marked decline of shooting incidents can be attributed to the success of hunter education training and mandatory use of fluorescent orange clothing.

Records dating back to 1915 have been kept by the Pennsylvania Game Commission in order to track these incidents. For comparative purposes, the Game Commission tracks trends in hunting-related shooting incidents by measuring the accident rate per 100,000 participants. In Pennsylvania, hunting-related shooting incidents have declined by nearly 80% since hunter education training began in 1959.

Included in this report are a series of charts, graphs, and related data that summarize records for incidents that were investigated by Pennsylvania Game Commission Wildlife Conservation Officers for this reporting year. Refer to these items for specific information. Overall, a look at these records will show that **hunting is safe and getting safer.**

Analysis

During 2019, there were a total of **26 HRSIs** recorded, **four of which were fatal**. This number represents a decrease in the total number of incidents reported during 2018 (27), but an increase in the number of fatalities (1). The **incident rate** (expressed as the number of incidents per 100,000 participants based on general license sales) was **3.06**, which was a slight **decrease** from the 2018 incident rate of **3.16**. **More than half** of incidents reported in 2019 were **inflicted by others (58%)**.

An analysis of offenders' ages revealed that individuals ages 16 and younger had an incident rate of 0.47 per 100,000 participants, a rate level to that reported for 2018. Hunters in the age range of 17 to 50 had an incident rate of 1.29 per 100,000 participants, while those over 50 years of age had an incident rate of 0.82. A total of 6 incidents, or 23% of all 2019 incidents with an identified offender, resulted from individuals with 10 or fewer years of hunting experience. This represents an decrease from 35% in 2018.

A look at reported weather conditions shows that 14 (54%) of incidents took place on days with clear conditions, while 5 (19%) of the remaining incidents occurred during overcast conditions. 4 (15%) occurred during inclement weather, including foggy, rainy, and snowy conditions.

Additional environmental factors, such as time of day and cover density, show the majority (81%) of incidents occurred during daylight hours. Dense cover was involved in 19% of incidents, while cover considered light accounted for 42%, and no cover

accounted for **38%.** HRSIs occurring in locations identified as **field (50%)** and **wooded (31%)**, accounted for the majority of recorded incidents for 2019.

In 2019, the primary cause of hunting-related shooting incidents was **Victim in Line of Fire (42%)**, with 11 incidents reported. This represents an increase from the 5 incidents cause by Victim in Line of Fire that were reported in 2018. The second most common cause in 2019, **Unintended Discharge (31%)**, fell significantly, with 8 incidents reported (18 were reported in 2018). An important note is that no incidents were identified by the cause **"Shot for Game"**, the **only time in Pennsylvania no incidents were recorded** for this category.

In terms of species being hunted when incidents occurred, deer (12 incidents) and small game (8 incidents) led the way, followed by furbearer (3 incidents) and waterfowl (2 incidents). The deer incidents represent nearly half (46%) of the 2019 incident total, an increase from 44% in 2018, while small game incidents represent 31%, a decrease from 37% in 2018. Spring turkey saw the most significant success, with zero incidents occurring for the first time since records have been kept by the PA Game Commission.

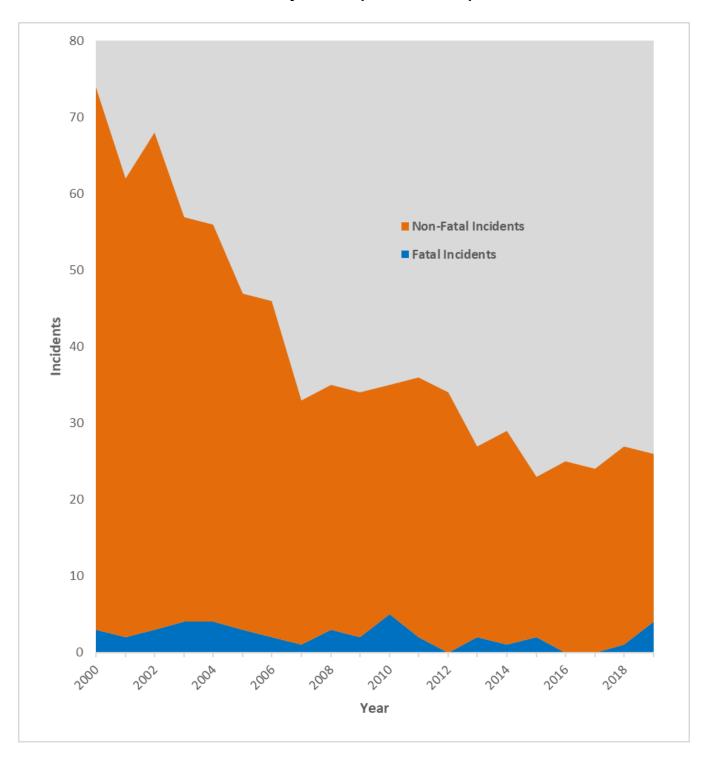
A total of **30,821 students** (22,526 traditional course students and 8,295 online HTE students) were certified through a Basic Hunter-Trapper Education course conducted during 2019. This educational effort is spearheaded by a dedicated corps of 1,828 volunteer instructors teaching Pennsylvania's hunters basic hunting safety and advanced hunting skills. The 2019 student total represents a decrease of 2,494 in the total number of students certified compared to the totals for 2018.

Conclusion

The year 2019 was the **seventh successive year that fewer than 30 HRSI's** were reported. This accomplishment may be attributed to the institution of mandatory hunter education in Pennsylvania and the effort that continues to improve the safety of our sport. Volunteer hunter education instructors, student graduates, and the entire hunting public should be congratulated for continuing to make hunting an enjoyable and safe activity.

Research & Education Division May 2020

Hunting-Related Shooting Incidents in Pennsylvania (2000 – 2019)



Statewide Totals

Bureau of Information & Education

Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 STATEWIDE TOTALS

Hunting Related Shooting Inci	шен кероп		en en	III.	SIS Rep		
	Fatal	Non- Fatal	Total		Fatal	Non- Fatal	Tota
Number of Incidents				Cause of Incident			
TOTALS	4	22	26	UNINTENTIONAL DISCHARGE	2	6	8
Injury Type				ST RAY SHOT		1	- 1
SELF-INFLICTED	3	8	11	VICTIM IN LINE OF FIRE	1	10	11
INFLICTED BY OTHERS	1	11	12	HUNTER SLIPPED &/OR FELL	1	1	2
UNKNOWN		3	3	HUNTER DROPPED SPORT ARM		2	2
				SPORT ARM DEFECTIVE		1	1
Sporting Arm Used				OTHER		_1	
SHOTGUN	1	10	11	Place of Incident			
RIFLE	2	6	8	FIELD		3	3
HANDGUN		_1_	1	WOODLAND	2	2	4
MUZZLELOADER		-1		MARSH/BOG	1		1
LONG BOW COMPOUND BOW		1	1	ROAD/HIGHWAY		3	3
CROSSBOW	1	2	3	OPENWATER		1	1
			3	FIELD- FLAT		6	6
Species Hunted				FIELD- ROLLING		4	4
DEER	3	9	12	WOODLAND - FLAT		1	1
BEAR		1	1	WOODLAND - ROLLING		2	2
SMALL GAME		8	8	WOODLAND - STEEP	1		1
WATERFOWL	1	1	2	Cover			
FURBEARER		3	3	DENSE		5	5
Victim Age				LIGHT	3	8	11
UNDER 12 YEARS		1	1	NONE	1	9	10
12 - 15 YEARS		1	1	Victim Experience			
16 - 20 YEARS	1	1	2		-	_	_
21 - 50 YEARS	2	13	15	UNDER 2 YEARS	1	2	3 2
OVER 50 YEARS	1	6	7	2-5 YEARS 6-10 YEARS	1	2	3
Offender Age				OVER 10 YEARS	2	16	18
					- 4	10	10
12 - 15 YEARS		4	4	Offender Experience			
16 - 20 YEARS	1	1	2	UNDER 2 YEARS	1	1	2
21 - 50 YEARS	1 2	8 5	9 7	2-5YEARS		4	4
OVER 50 YEARS NOT REPORTED	2	4	4	6 - 10 YEARS	1	1	2
		4	-	OVER 10 YEARS	2	12	14
Light Conditions				NOT REPORTED		4	4
DAWN		2	2	Offender Experience Hunting Spec	ie		
DAYLIGHT	4	17	21	UNDER 2 YEARS		1	- 1
DUSK		_1	1	2-5 YEARS	1	4	5
DARK		2	2	6 - 10 YEARS	1	2	3
Weather Conditions				NOT REPORTED		5	5
CLEAR	2	12	14	OVER 10 YEARS	2	10	12
OVERCAST	1	4	5				
FOG		1	1				
RAIN		3	3				
		-	-				

These 26 incidents represent 100% of the 26 incidents reported during the period.

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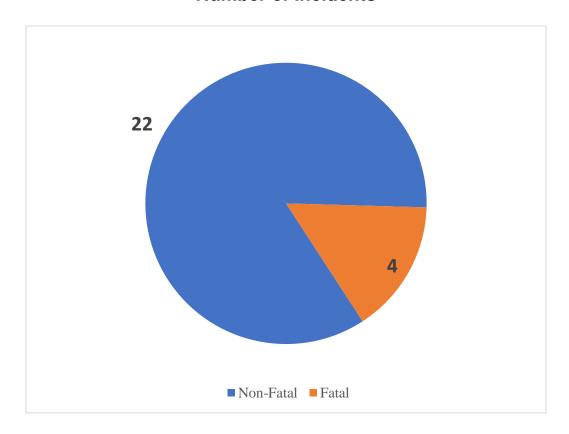
7.5

UNKNOWN

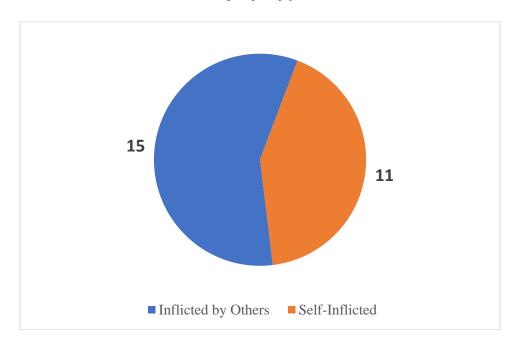
Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 STATEWIDE TOTALS

Hunting Related Shooting Incident Reporting System				HRSIS Report	t		
	Non-				Non-		
	Fatal	Fatal	Total	Fatal I	Fate		
ictim Position							
STANDING	1	10	11				
WALKING/RUNNING	1	5	6				
SITTING	1	1	2				
ENTER/EXIT VEHICLE		1	1				
OTHER/UNKNOWN		2	2				
IN TREE STAND		2	2				
BLIND		1	1				
TREESTAND	1		1				
ictim Was							
HUNTING	4	20	24				
OTHER		2	2				
Offender Was							
HUNTING	4	19	23				
NOT REPORTED		3	3				
Caliber							
CENTERFIRE	1	1	2				
BLACK POWDER		1	1				
UNKNOWN	1	6	7				
Gauge							
12	1	8	9				
UNKNOWN		2	2				
Shot Size							

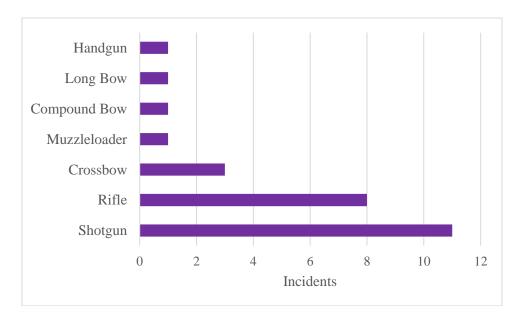
Number of Incidents



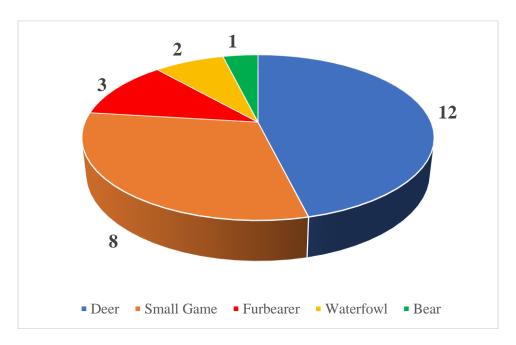
Injury Type



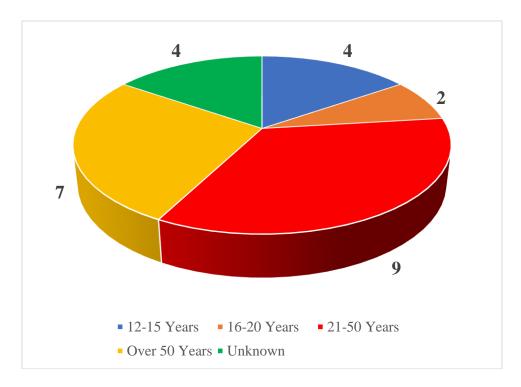
Sporting Arm Used



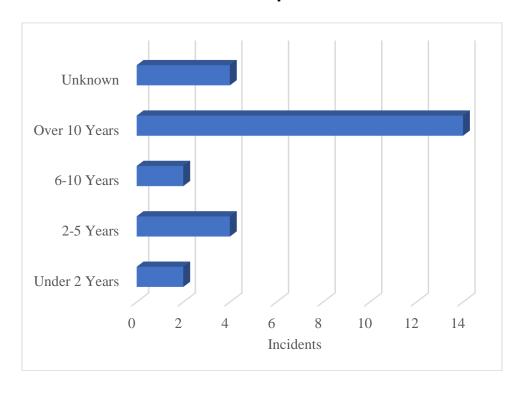
Species Hunted



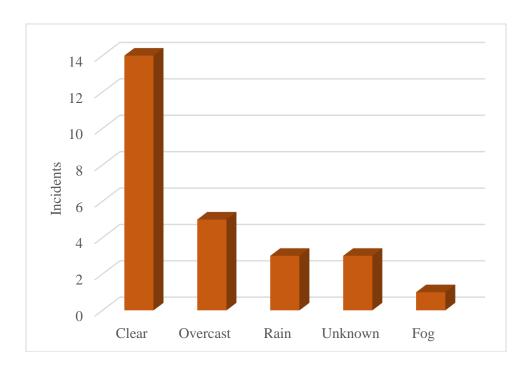
Offender Age



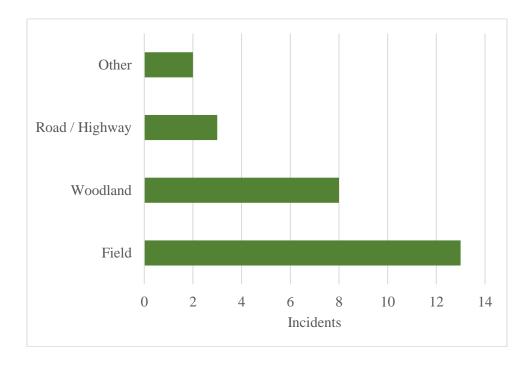
Offender Experience



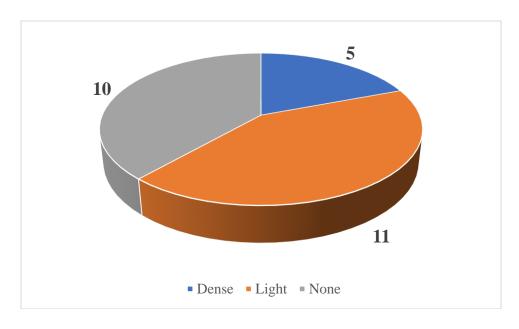
Weather Conditions



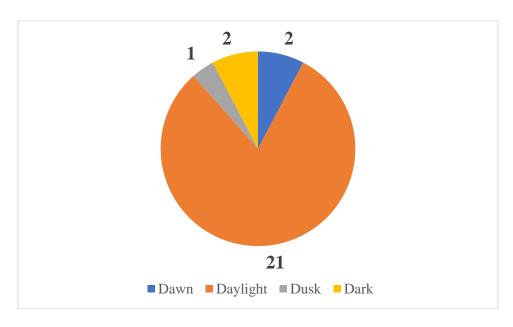
Place of Incident



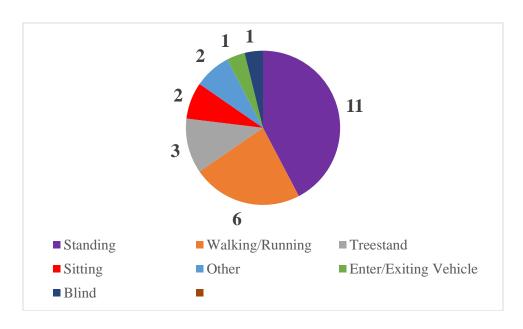
Cover Density



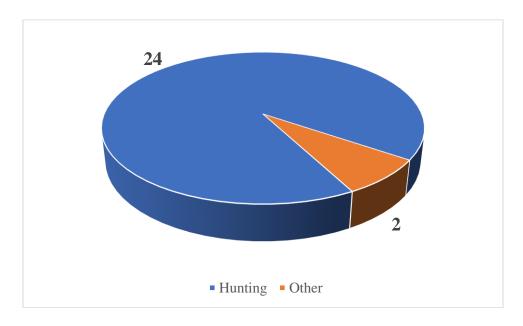
Light Conditions



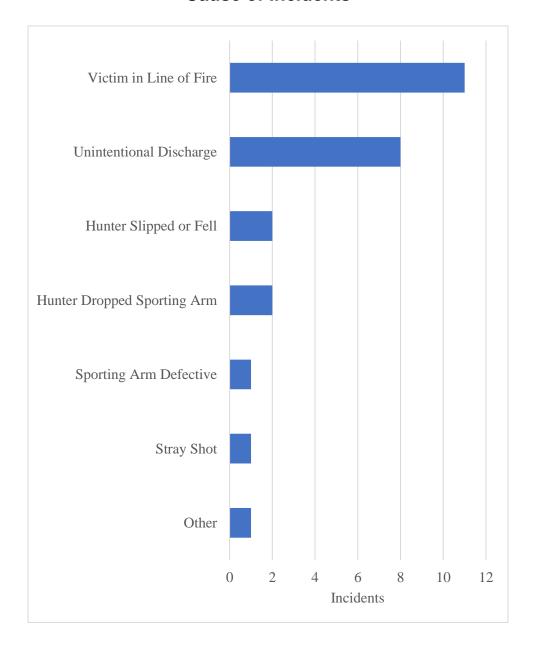
Victim's Position



Victim's Activity



Cause of Incidents



Incidents Involving Hunter Education Graduates

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Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 HUNTER SAFETY EDUCATION GRADUATE REPORT

		Non-				Non-	
	Fatal		Total		Fatal	Fatal	Total
Number of Incidents				Cause of Incident			
TOTALS	1	16	17	UNINTENTIONAL DISCHARGE	1	5	6
Injury Type				VICTIM IN LINE OF FIRE		7	7
SELF-INFLICTED	1	7	8	HUNTER SLIPPED &/OR FELL		1	1
INFLICTED BY OTHERS		9	9	HUNTER DROPPED SPORT ARM		1	1
Sporting Arm Used				SPORT ARM DEFECTIVE OTHER		1	1
SHOTGUN	1	6	7	Place of Incident			_
RIFLE	_	5	5				
HANDGUN		1	1	FIELD		2	2
LONG BOW		4	1	WOODLAND		2	2
COMPOUND BOW		-1	1	MARSH/BOG	1		1_
CROSSBOW		2	2	ROAD/HIGHWAY		3	3
				OPENWATER		1	_1
Species Hunted				FIELD- FLAT		4	4
DEER		7	7	FIELD - ROLLING		3	3
BEAR		1	1	WOODLAND - ROLLING		1	1
SMALL GAME		4	4	Cover			
WATERFOWL	1	1	2	DENSE		3	3
FURBEARER		3	3	LIGHT	- 1	5	6
Victim Age				NONE	•	8	8
UNDER 12 YEARS		1	1	Victim Experience			
12 - 15 YEARS		1	1	UNDER 2 YEARS		2	2
16 - 20 YEARS	1		1	2-5 YEARS		2	2
21 - 50 YEARS		10	10	6 - 10 YEARS	1	1	2
OVER 50 YEARS		4	4	OVER 10 YEARS		11	11
Offender Age				Offender Experience		- 11	- 11
12 - 15 YEARS		4	4				
16 - 20 YEARS	1	1	2	UNDER 2 YEARS		1	1_
21 - 50 YEARS		8	8	2-5 YEARS		4	4
OVER 50 YEARS		3	3	6 - 10 YEARS	1	1	10
Light Conditions				OVER 10 YEARS		10	10
DAWN		1	1	Offender Experience Hunting Spec	16		
DAYLIGHT	1	13	14	UNDER 2 YEARS		_1_	1_
DUSK		1	1	2-5 YEARS		4	4
DARK		1	1	6 - 10 YEARS	1	2	3
Weather Conditions				OVER 10 YEARS		8	8
				NOT REPORTED			
CLEAR	1	8	9	Victim Position			
OVERCAST		3	3	STANDING	1	5	- 6
FOG		1	1	WALKING/RUNNING		4	4
RAIN		2	2	SITTING		1	1_
NOT REPORTED		2	2	ENTER/EXIT VEHICLE		1	- 1
				OTHER/UNKNOWN		2	2
				IN TREE STAND		2	2
				BLIND		1	1

These 17 incidents represent 65.38% of the 26 incidents reported during the period.

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UNKNOWN

Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 HUNTER SAFETY EDUCATION GRADUATE REPORT

Hunting Related Shooting	g Incident Report	ing Syst	HRSIS Report: 05	
		Non-		Non-
	Fatal	Fatal	Total	Fatal Fatal Tot
Victim Was				
HUNTING	1	14	15	
OTHER		2	2	
Offender Was				
HUNTING	1	16	17	
Caliber				
CENTERFIRE		1	1	
UNKNOWN		5	5	
Gauge				
12	1	6	7	
Shot Size				
5		1	1	
6		1	1	
00		1	1	
7.5		1	1	
8		1	1	
DD			4	

These 17 incidents represent 65.38% of the 26 incidents reported during the period.

Summary of Incidents Involving Deer

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Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 INCIDENTS INVOLVING DEER

		Non-				Non-	
	Fatal	Fatal	Total		Fatal		Tota
Number of Incidents				Place of Incident			
TOTALS	3	9	12	WOODLAND	2	2	4
njury Type				ROAD/HIGHWAY		2	2
SELF-INFLICTED	2	6	8	FIELD- ROLLING		2	2
INFLICTED BY OTHERS	1	2	3	WOODLAND - FLAT		1	1
UNKNOWN		1	1	WOODLAND - ROLLING		2	2
				WOODLAND - STEEP	1		1
porting Arm Used				Cover			
RIFLE	2	4	6	DENSE		3	3
HANDGUN		1	1	LIGHT	2	2	4
MUZZLELOADER		1	1	NONE	1	4	5
COMPOUND BOW		1	1	Victim Experience			
CROSSBOW	1	2	3				
pecies Hunted				UNDER 2 YEARS	1		1
DEER	3	9	12	6 - 10 YEARS		1	1
				OVER 10 YEARS	2	8	10
ictin Age				Offender Experience			
21 - 50 YEARS	2	5	7	UNDER 2 YEARS	1		1
OVER 50 YEARS	1	4	5	6 - 10 YEARS		1	1
Offender Age				OVER 10 YEARS	2	7	9
21 - 50 YEARS	1	4	5	NOT REPORTED		1	1
NOT REPORTED		1	1	Offender Experience Hunting	Specie		
OVER 50 YEARS	2	4	6	2-5 YEARS	1		- 1
ight Conditions				6 - 10 YEARS	_	1	1
DAYLIGHT	3	7	10	OVER 10 YEARS	2	7	9
DUSK	,	1	1	NOT REPORTED		1	1
DARK		1	1	Victim Position			
Veather Conditions				STANDING		4	4
		_		WALKING/RUNNING	1	1	2
CLEAR	1	3	4	SITTING	1		1
	1	3	4	ENTER/EXIT VEHICLE		1	- 1
		2	2	IN TREE STAND		2	2
	1	1	2	BLIND		1	1
Cause of Incident				TREESTAND	1	•	1
UNINTENTIONAL DISCHARGE	1	5	6	Victim Was			
STRAYSHOT		1	1				
VICTIM IN LINE OF FIRE	1	1	2	HUNTING	3	9	12
HUNTER SUPPED &/OR FELL	1	1	2	Offender Was			
SPORT ARM DEFECTIVE		1	1	HUNTING	3	8	- 11
				NOT REPORTED		1	- 1
				Caliber		_	-
							-
				CENTERFIRE	1	_1_	2
				BLACK POWDER		1	_ 1
STRAY SHOT VICTIM IN LINE OF FIRE HUNTER SLIPPED &/OR FELL				UNKNOWN	1	4	5

These 12 incidents represent 46.15% of the 26 incidents reported during the period.

Summary of Incidents Involving Small Game

Bureau of Information & Education

Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 INCIDENTS INVOLVING SMALL GAME

Hunting Related Shooting Inciden	t Reporting	Syst	HRSIS Report: 02				
	_	Non- Fatal	Total	Fatal	Non- Fatal	Total	
Number of Incidents				Victim Experience			
TOTALS		8	8	UNDER 2 YEARS	1	1	
Injury Type				2 - 5 YEARS	1	- 1	
SELF-INFLICTED		2	2	6 - 10 YEARS	1	1_	
INFLICTED BY OTHERS		4	4	OVER 10 YEARS	5	5	
UNKNOWN		2	2	Offender Experience			
Sporting Arm Used				2-5 YEARS	2	2	
SHOTGUN		8	8	OVER 10 YEARS	3	3	
			-	NOT REPORTED	3	3	
Species Hunted		_		Offender Experience Hunting Specie			
SMALL GAME		8	8	2-5 YEARS	2	2	
Victim Age				6 - 10 YEARS	1	1	
12 - 15 YEARS		1	1	NOT REPORTED	3	3	
16 - 20 YEARS		1	1	OVER 10 YEARS	2	2	
21 - 50 YEARS		4	4	Victim Position			
OVER 50 YEARS		2	2	STANDING	4	4	
Offender Age				WALKING/RUNNING	3	3	
12 - 15 YEARS		2	2	OT HER/UNKNOWN	1	1	
21 - 50 YEARS		2	2	Victim Was			
OVER 50 YEARS		1	1	HUNTING	7	7	
NOT REPORTED		3	3	OTHER	1	1	
Light Conditions				Offender Was			
DAWN		2	2	HUNTING	6	6	
DAYLIGHT		6	6	NOT REPORTED	2	2	
Weather Conditions				Gauge			
CLEAR		6	6	12	6	6	
OVERCAST		1	1	UNKNOWN	2	2	
FOG		1	1	Shot Size			
Cause of Incident						_	
UNINTENTIONAL DISCHARGE		1	1	5	2	1	
VICTIM IN LINE OF FIRE		6	6	6 7.5	2	2	
HUNTER DROPPED SPORT ARM		1	1	8	1	1	
Place of Incident				UNKNOWN	2	2	
FIELD		2	2				
FIELD - FLAT		4	4				
FIELD - ROLLING		2	2				
Cover							
DENSE		1	1				
LIGHT		5	5				
NONE		2	2				

These 8 incidents represent 30.77% of the 26 incidents reported during the period.

Summary of Incidents Involving Furbearer

Bureau of Information & Education

Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 INCIDENTS INVOLVING FURBEARER

Hunting Related Shooting Inci	dent Report	ing Syst	HRSIS Report: 02				
	Fatal	Non- Fatal	Total	Fatal	Non- Fatal	Total	
Number of Incidents				Offender Experience Hunting Specie			
TOTALS		3	3	UNDER 2 YEARS	1	1	
Injury Type				OVER 10 YEARS	1	1	
INFLICTED BY OTHERS		3	3	NOT REPORTED	1	1	
Sporting Arm Used				Victim Position			
		1	1	STANDING	1	1	
SHOTGUN RIFLE		1	1	WALKING/RUNNING	1	- 1	
LONG BOW		1	1	SITTING	1	1	
Species Hunted				Victim Was			
FURBEARER		3	3	HUNTING	3	3	
			-	Offender Was			
Victim Age				HUNTING	3	3	
UNDER 12 YEARS 21 - 50 YEARS		2	2	Caliber			
			- 4	UNKNOWN	1	1	
Offender Age				Gauge			
12 - 15 YEARS 21 - 50 YEARS		2	2	12	1	1	
		- 2	- 2			_	
Light Conditions				Shot Size			
DAYLIGHT DARK		2	1		1	1	
		-	-				
Weather Conditions				•			
CLEAR RAIN		1	1				
NOT REPORTED							
Cause of Incident				•			
		2	2	•			
VICTIM IN LINE OF FIRE OTHER		1	2				
Place of Incident		•		•			
FIELD		1	1	•			
FIELD-FLAT		2	2				
Cover				•			
DENSE		1	1	•			
LIGHT		1	1				
NONE		1	1				
Victim Experience				•			
UNDER 2 YEARS		1	1	•			
OVER 10 YEARS		2	2				
Offender Experience				•			
UNDER 2 YEARS		1	1	•			
OVER 10 YEARS		2	2				

These 3 incidents represent 11.54% of the 26 incidents reported during the period.

Summary of Incidents Involving Waterfowl

Bureau of Information & Education

Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 INCIDENTSINVOLVING WATERFOWL

Hunting Related Shooting Incident	Report	ing Syst	em		HRSIS Repo		
	F'	Non-	T'		F!	Non-	T-t-2
Number of Incidents	F atai	Fatal	1 otal	Victim Position	r arai	Fatal	1 orai
TOTALS	1	1	2	STANDING	1		1
Injury Type				OT HER/UNKNOWN		1	1
SELF-INFLICTED	1		1	Victim Was			
INFLICTED BY OTHERS	•	1	1	HUNTING	1		1
Sporting Arm Used				OTHER		1	- 1
SHOTGUN	1	1	2	Offender Was			
Species Hunted				HUNTING	1	1	2
WATERFOWL	1	1	2	Gauge			
Victim Age				12	1	1	2
16 - 20 YEARS	1		1	Shot Size			
21 - 50 YEARS	•	1	1	BB	1		1
Offender Age				UNKNOWN		1	1
12 - 15 YEARS		1	1				
16 - 20 YEARS	1		1				
Light Conditions							
DAYLIGHT	1	1	2				
Weather Conditions				'			
CLEAR	1	1	2	1			
Cause of Incident				1			
UNINTENTIONAL DISCHARGE	1		1				
VICTIM IN LINE OF FIRE		1	1				
Place of Incident							
MARSH/BOG	1		1	1			
OPEN WATER		1	1				
Cover							
LIGHT	1		1	•			
NONE		1	1				
Victim Experience				1			
2-5 YEARS		1	1				
6 - 10 YEARS	1		1				
Offender Experience				ı			
2-5 YEARS		1	1				
6 - 10 YEARS	1		1				
Offender Experience Hunting Specie	3						
2-5 YEARS		1	1				
6 - 10 YEARS	1		1				

These 2 incidents represent 7.69% of the 26 incidents reported during the period.

Summary of Incidents Involving Bear

Bureau of Information & Education

Hunting Related Shooting Incidents from 01/01/2019 to 12/31/2019 INCIDENTS INVOLVING BEAR

Hunting Related Shooting Incident	am	HRSIS Re				
	Non-				Non-	_
	Fatal Fatal	Total		Fatal	Fatal	_
Number of Incidents						
TOTALS	1	1				
Injury Type						
INFLICTED BY OTHERS	1	1				
Sporting Arm Used						
RIFLE	1	1				
Species Hunted						
BEAR	1	1				
Victim Age						
21 - 50 YEARS	1	1				
Offender Age						
16 - 20 YEARS	1	1				
Light Conditions						
DAYLIGHT	1	1				
Weather Conditions						
CLEAR	1	1				
Cause of Incident						
HUNTER DROPPED SPORT ARM	1	1				
Place of Incident						
ROAD/HIGHWAY	1	1				
Cover						
NONE	1	1				
Victim Experience						
OVER 10 YEARS	1	1				
Offender Experience						
2 - 5 YEARS	1	1				
Offender Experience Hunting Specie	e					
2 - 5 YEARS	1	1				
Victim Position						
STANDING	1	1				
Victim Was						
HUNTING	1	1				
Offender Was						
HUNTING	1	1				
Caliber						
UNKNOWN	1	1				

This 1 incident represents 3.85% of the 26 incidents reported during the period.