The 2004 Bird Shooting Season Report

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Bird Shooting Season
Report

Prepared by the

National Environment and Planning Agency
Biodiversity Branch

APRIL 2005

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2004 Bird Shooting Season Report

1.0 Introduction

1.1 Regulations

The 2004 Bird Shooting Season was declared open on August 21, 2004 and closed on September 19, 2004 under the Wild Life (Shooting Season) Order, 2004. The Order specified the days and times of each shooting session and the game birds to be hunted. The season was prematurely closed as a result of the effects of Hurricane Ivan that affected the Island on September 10, 2004, thus reducing the hunting season to five weeks.

2.0 Budget

2.1 Expenditure

The projected expenditure for the 2004 Bird Shooting Season was $2,330,000.00. This included expenses for printing of licences and receipt books, a public education programme, delivery and collection of licences to and from vendors, and boat rental, travelling and accommodation for monitoring teams. The actual amount expended was $3,038,381.20. The increase in expenditure was due to three enforcement workshops held, rental of four all-wheel-drive vehicles and motor vehicle repairs.

2.2 Income

Sixteen vendors sold licences on behalf of the Natural Resources Conservation Authority (NRCA) in addition to the National Environment and Planning Agency (NEPA). A total of 1,444 licences were sold. Total income inclusive of late processing fees collected for the period April 2004 to April 2005 was $6,166,532.00.

3.0 Monitoring

Seventeen monitoring teams, comprising officers from NEPA, the Island Special Constabulary Force (ISCF), Environmental NGO's and Game Wardens monitored the shooting activities in all parishes. During monitoring, bag limits, Hunters' and Firearms' Licences were checked and the relevant information recorded on a data sheet. This was submitted weekly as an addendum to the monitoring report, to NEPA. An analysis of these reports indicated that eighty-two (82) shooting locations across the island were visited and 1,152 checks were made on hunters. The total number of birds recorded as shot during monitoring was 11,808.

4.0 Returns

In accordance with the Wild Life Protection (Hunters Return) Regulations, 1999, all hunters should submit their Hunting Returns to the Natural Resources Conservation Authority by December 31 of each year. On December 31 2004, 1,211 returns were received and by the end of March 2005, an additional 99, bringing the total to 1,300. The following data analysis is based upon these returns.

5.0 Data Analysis

5.1 Shooting Activities

Shooting activities for the 2004 Bird Shooting Season were reported for all parishes (Figure 1). St. Elizabeth (23%) accounted for the highest percentage, followed by Clarendon (15%), St. James and St. Catherine (12%), and Manchester (9%). The other parishes accounted for the remaining 41%.

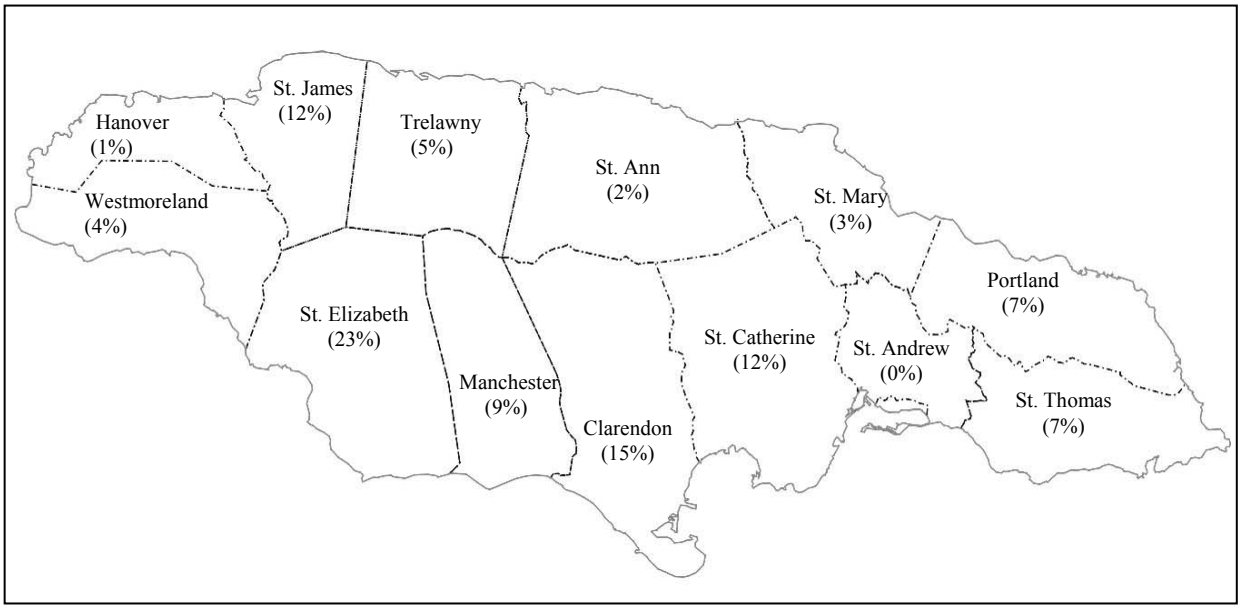

Figure 1. Map of Jamaica showing the percentage distribution of shooting activities by parish across the

The weekly trend (Figure 2) for the island showed a sharp decline in shooting activities for the first three weeks, decreasing from 2,194 reported sessions on the first weekend to 1,132 on the third weekend; then a sudden decrease to 32 in the fourth week. It was at this point that Hurricane Ivan passed the island. Only 79 hunters participated in hunting on the fifth weekend.

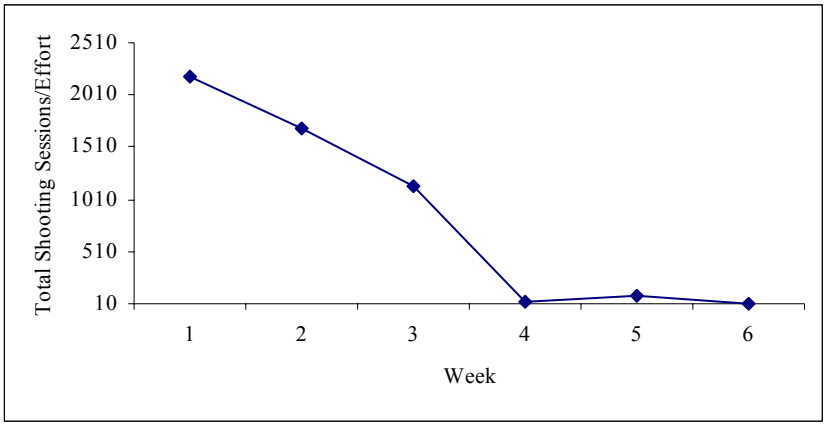

Figure 2. Line graph illustrating the weekly trend in shooting activities (reported shooting sessions) for the island during the 2004 Bird Shooting Season

Tables 1a and 1b illustrates how shooting effort relates to the prescribed periods. Hunters showed a preference for Saturday morning shoots (Table 1a) when compared to Saturday afternoons and Sunday mornings. At the parish level (Table 1b) with the exception of St. Ann and Hanover, where most hunters participated on Sunday mornings, and Clarendon, Manchester and Westmoreland where most hunters participated on Saturday afternoons, all other parishes had Saturday mornings to be the dominant shooting period.

Table 1a. Shooting sessions reported for all three prescribe shooting periods during the 2004 Bird Shooting Season.

Shooting times	Reported Sessions
Saturday AM	1,919
Saturday PM	1,696
Sunday AM	1,523
Total	**5,138**

Table 1b. Distribution of shooting effort/sessions reported for all three prescribe shooting periods for all parishes during the 2004 Bird Shooting Season.

PARISH	SAM	SPM	SUN	Grand Total
ST. ANDREW	8	6	6	20
ST. ANN	29	38	42	109
ST. CATHERINE	242	222	175	639
CLARENDON	247	252	223	722
ST. ELIZABETH	435	364	338	1137
HANOVER	13	6	17	36
ST. JAMES	250	189	196	635
MANCHESTER	172	179	124	475
ST. MARY	65	57	55	177
PORTLAND	150	117	117	384
ST. THOMAS	144	100	99	343
TRELAWNY	101	100	80	281
WESTMORELAND	63	66	51	180
Grand Total	***1919***	***1696***	***1523***	***5138***

5.2 Game Birds Shot

A total of 68,777 game birds was recorded as being shot during the 2004 Bird Shooting Season (Table 2).

Table 2. Number of Birds Shot for the 2004 Shooting Season.

Game Birds	Total	% of Total
White-winged Doves	29,246	43
Paloma[1]	7,200	11
Bald-pates	28,253	41
Pea Dove	4.078	5
Grand Total	**68,777**	

With respect to the total number of birds shot, the parish of St. Elizabeth (Table 3) accounted for 23%, followed by St. Catherine (15%), Clarendon (15%) and St. James (13%) .

[1] Paloma = Long-tailed Pea Dove = Mourning Dove

Table 3. Distribution totals, percentages and average birds shoot per session for the various parishes.
NB: AV/SS – average birds per shooting session. *Parishes where White-winged doves dominated the

PARISH	*White-winged Dove*	*Long-tailed Pea Dove*	*Bald-pate*	*Pea Dove*	*Total*	*AV/SS*	*% of Total*
ST. ANDREW *	322	0	22	0	344	17	1
ST. ANN *	712	129	671	70	1582	15	2
ST. CATHERINE *	6624	1189	2053	401	10267	16	15
CLARENDON *	4376	1266	3977	401	10020	14	15
ST. ELIZABETH *	7362	2643	3754	1798	15557	14	23
HANOVER *	195	13	82	26	316	9	0
ST. JAMES	2653	185	5844	331	9013	14	13
MANCHESTER	685	383	3800	313	5181	11	8
ST. MARY	676	27	970	61	1734	10	3
PORTLAND	897	62	2856	94	3909	10	6
ST. THOMAS *	2700	294	1351	154	4499	13	7
TRELAWNY	1008	279	2524	128	3939	14	6
WESTMORELAND	1036	730	349	301	2416	13	4
Grand Total	***29246***	***7200***	***28253***	***4078***	***68777***		

At the species level (Table 3), White-winged doves dominated the shoot in eight parishes; all located along the south coast. Bald-pates dominated the shoot in the remaining parishes. Palomas were significant in Westmoreland where it was the second highest. An examination of the parish totals indicated that St. Elizabeth accounted for the highest total (7,362) in White-winged Doves, Long-tailed Pea Doves (2,643) and Pea Doves (1,798). St. James accounted for the highest total in Bald-pates (5,844). In Manchester and Portland the dominance of Bald-pates was very high as they accounted for more than 73 % of the total birds shot.

St. Andrew accounted for the highest number of birds shot per session. However, of the more traditional shooting parishes, St. Catherine had the highest average (16 birds per session), while Portland had the lowest average (10 birds per shooting session).

Table 3b. Distribution total for game birds shot per session during the 2004 Bird Shooting Season.
NB: WW-White-winged Dove, LPD – Long-tailed Pea Dove, BP – Bald-pate, PD – Pea Dove, AV/SS – average birds shot per session. SAM – Saturday Morning, SPM – Saturday afternoon, SUN – Sunday morning.

	WW		**LPD**		**BP**		**PD**			
TIME	**TOTAL**	**AV/SS**	**TOTAL**	**AV/SS**	**TOTAL**	**AV/SS**	**TOTAL**	**AV/SS**	**TOTAL**	**AV/SS**
SAM	11073	5.8	2223	1.2	11661	6.1	1355	0.7	26312	13.7
SPM	10046	5.9	2880	1.7	8386	4.9	1456	0.9	22768	13.4
SUN	8127	5.3	2097	1.4	8206	5.4	1267	0.8	19697	12.9
TOTAL	***29246***		***7200***		***28253***		***4078***		***68777***	

Table 3b shows that despite the fact that 3,544 and 6,615 less birds being shot on Saturday afternoons and Sunday mornings respectively, when compared to the figure for Saturday mornings there is no significant difference in the average number of birds per session. At the

species level, only Bald-pates showed a significant difference in the average numbers where the figure for Saturday morning was 6.1 compared to the afternoon which was 4.9

The general trend for the season showed a dramatic decline in the total number of birds shot as the season progressed (Table 4 and Figure 3). This trend was reflected by the Bald-pate and White-winged Dove. However, there was a gentle decline in the trends shown by the Pea Dove and the Paloma.

Table 4. Weekly totals for game birds shot during the 2004 Bird Shooting Season.

	WEEKS						
Game Birds	**1**	**2**	**3**	**4**	**5**	**6**	**Grand Total**
White-winged Doves	13,493	9,350	5,819	193	385	6	29,246
Long-tailed Pea Doves	2,898	2,429	1,612	75	186	0	7,200
Bald-pates	12,942	9,136	5,536	229	405	5	28,253
Pea Doves	1,629	1,377	968	56	48	0	4,078
Grand Total	**30,962**	**22,292**	**13,935**	**553**	**1,024**	**11**	**68,777**

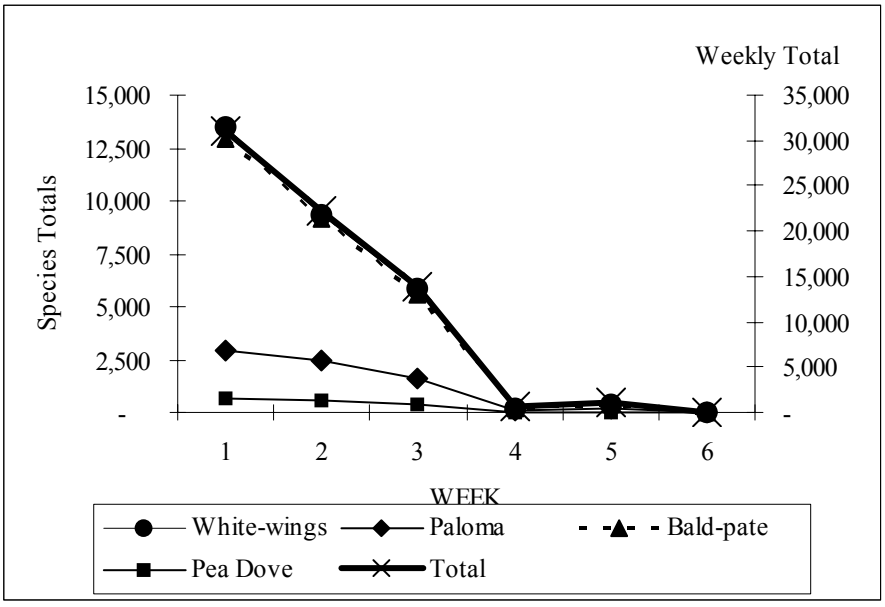

Figure 3. Line graphs illustrating the weekly trend for birds shot and accounted for during the 2004 Bird Shooting Season.

5.3 Vegetation Trend

The majority of shooting activities occurred in inland woodland areas (Figure 4) while only 5% of the shooting activities was reported in mangroves. A similar trend was observed for the number of birds reported for these areas (Figure 5). Fifty percent was shot in inland woodland while mangroves accounted for 6%.

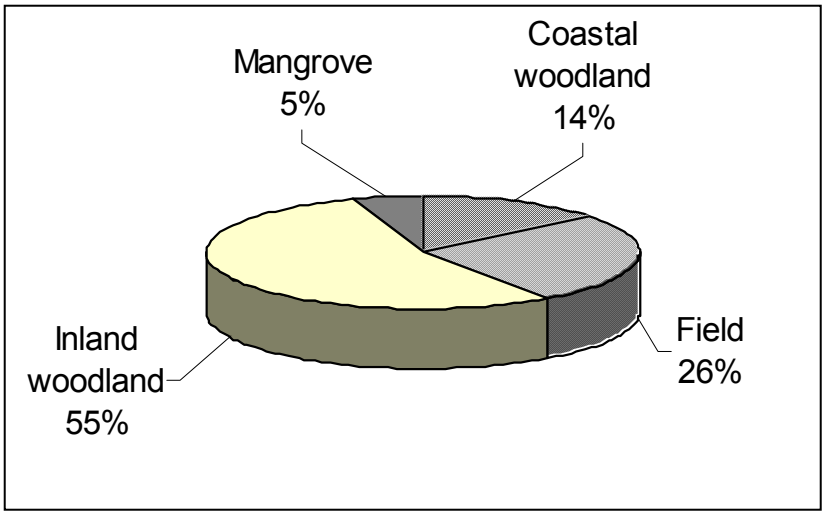

Figure 4. Pie chart illustrating the percentage distribution of shooting activities in vegetation types during the 2004 Bird Shooting Season.

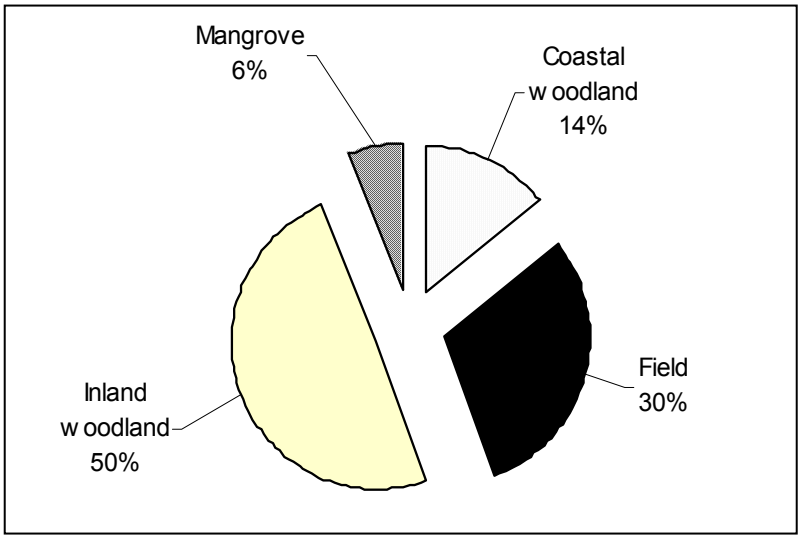

Figure 5. Pie chart illustrating what percentage of the total birds was shot in the vegetation types during the 2004 Bird Shooting Season.

Figure 6 shows the total number of birds shot for each species per vegetation type. White-winged doves were dominant in field and mangroves, while the Bald-pate showed dominance in both woodland areas. Palomas were significant in the field.

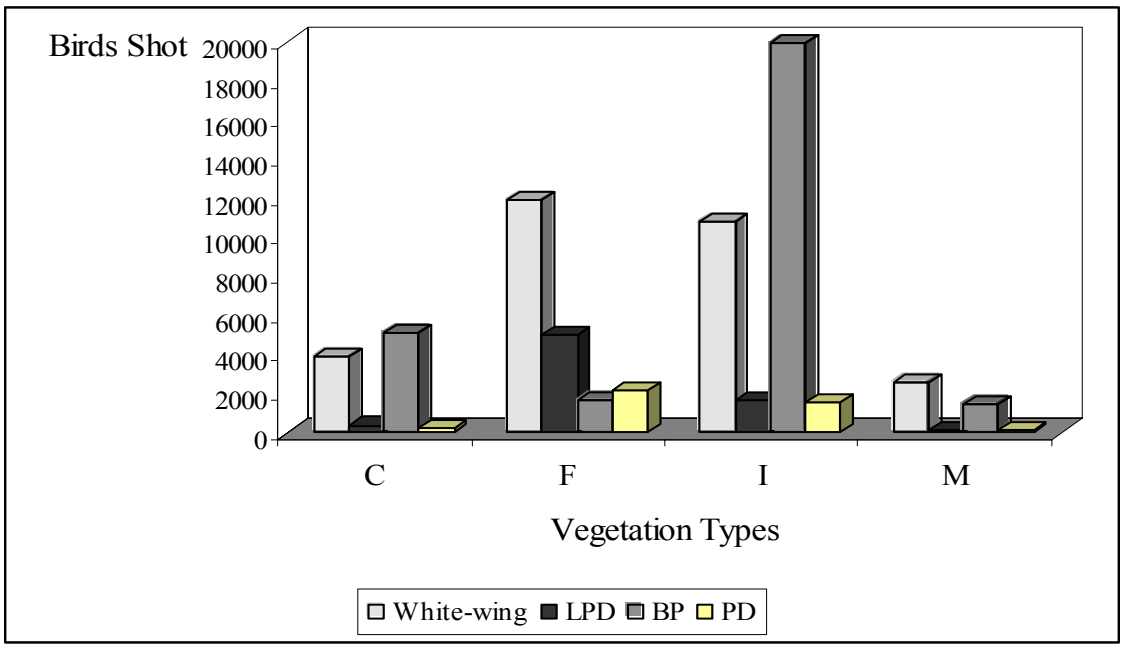

Figure 6: Histogram illustrating the distribution totals for each species of birds shot in each vegetation type during the 2004 Bird Shooting Season. NB: C – Coastal woodlands, F – Fields, I – Inland woodlands & M - Mangroves

Table 5. Distribution totals for each vegetaion type in all parishes for White-winged doves shot during the 2004 Bird Shooting Season. NB: C – Coastal woodlands, F – Fields, I – Inland woodlands & M - Mangroves

PARISH	C	F	I	M	Grand Total
ST. ANDREW	0	0	322	0	322
ST. ANN	90	155	447	20	712
ST. CATHERINE	854	3604	1284	882	6624
CLARENDON	661	2097	790	828	4376
ST. ELIZABETH	531	3934	2592	305	7362
HANOVER	22	51	11	111	195
ST. JAMES	227	166	2260	0	2653
MANCHESTER	9	341	335	0	685
ST. MARY	400	79	197	0	676
PORTLAND	507	5	385	0	897
ST. THOMAS	394	668	1282	356	2700
TRELAWNY	153	248	579	27	1007
WESTMORELAND	57	618	341	20	1036
Grand Total	***3905***	***11966***	***10503***	***2549***	***28923***

Tables 5, 6,7 & 8 show the distribution totals for each vegetation type for the parishes. White-winged doves (Table 5) were dominant in coastal woodlands for Portland and St. Mary while they were dominant in inland woodlands in St. Ann, St. Andrew, St. James, St. Thomas and Trelawny. The remaining parishes indicated that White-winged doves were dominant in the fields.

Table 6 Distribution totals for each vegetaion type in all parishes for Long-tailed pea doves shot during the 2004 Bird Shooting Season. NB: C – Coastal woodlands, F – Fields, I – Inland woodlands & M - Mangroves

PARISH	C	F	I	M	Grand Total
ST. ANDREW	0	0	0	0	0
ST. ANN	86	40	3	0	129
ST. CATHERINE	58	977	145	9	1189
CLARENDON	36	1125	84	21	1266
ST. ELIZABETH	149	1635	818	41	2643
HANOVER	0	13	0	0	13
ST. JAMES	1	107	77	0	185
MANCHESTER	0	236	147	0	383
ST. MARY	0	15	12		27
PORTLAND	5	0	57	0	62
ST. THOMAS	26	169	99	0	294
TRELAWNY	0	183	76	20	279
WESTMORELAND	19	536	156	19	730
Grand Total	***380***	***5036***	***1674***	***110***	***7200***

Table 7 Distribution totals for each vegetaion type in all parishes for Bald-pates shot during the 2004 Bird Shooting Season. NB: C – Coastal woodlands, F – Fields, I – Inland woodlands & M - Mangroves

PARISH	C	F	I	M	Grand Total
ST. ANDREW	-	-	22	-	22
ST. ANN	301	8	362	0	671
ST. CATHERINE	484	202	952	415	2053
CLARENDON	1328	244	1569	836	3977
ST. ELIZABETH	231	681	2792	50	3754
HANOVER	6	1	26	49	82
ST. JAMES	727	112	5005	-	5844
MANCHESTER	75	66	3644	15	3800
ST. MARY	80	25	865	-	970
PORTLAND	1074	23	1755	4	2856
ST. THOMAS	236	101	936	78	1351
TRELAWNY	597	49	1866	12	2524
WESTMORELAND	8	140	190	11	349
Grand Total	***5147***	***1652***	***19962***	***1470***	***28231***

With the exception of St. Ann where the Long-tailed Pea Dove was dominant in coastal woodlands and Portland where dominance was shown in inland woodland, most of the birds (Table 6) were shot and accounted for in the field shoots for the remaining parishes. Most Bald-pates (Table 7) were shot in inland woodland for all parishes, while most Pea doves (Table 8) were shot and accounted for in field shoots for St. Catherine, St. Elizabeth, Clarendon and Westmoreland and with the exception of Trelawny, all other parishes had it for inland woodland. Trelawny had equal amounts both for field and inland woodland shoots.

Table 8 Distribution totals for each vegetaion type in all parishes for Pea doves shot during the 2004 Bird Shooting Season. NB: C – Coastal woodlands, F – Fields, I – Inland woodlands & M - Mangroves

PARISH	C	F	I	M	Grand Total
ST. ANDREW	0	0	0	0	0
ST. ANN	4	8	58	0	70
ST. CATHERINE	29	337	33	2	401
CLARENDON	23	328	47	3	401
ST. ELIZABETH	121	1072	539	66	1798
HANOVER	1	0	2	23	26
ST.JAMES	4	17	310	0	331
MANCHESTER	2	86	225	0	313
ST. MARY	6	4	51	0	61
PORTLAND	19	8	67	0	94
ST. THOMAS	13	31	102	8	154
TRELAWNY	1	63	63	1	128
WESTMORELAND	16	221	54	10	301
Grand Total	***239***	***2175***	***1551***	***113***	***4078***

6.0 Discussion

Table 2 summarizes the recorded total number of birds shot for the 2004 season (68,777). White-winged Doves accounted for 43%, Palomas 11%, Bald-pates 41% and Pea Dove 5%. During the season the average number of birds shot by each hunter was 76 and noting that 10% of the birds shot were lost in the field. Using the season's average per hunter then by extrapolation the grand total for the 2004 season was 76,490.

This gives the following the results:

# of White-winged Dove	=	31,949
# of Paloma	=	8,414
# of Bald-pate	=	31,361
# of Pea Dove	=	4,766

Table 9. Comparative figures for the 2001 to 2003 Bird Shooting Seasons. NB: WW – White-winged Dove, BP – Bald-pate and * this species was not on the prescribed list for those seasons.

YEAR	PERMITS	WW	PALOMA	BP	PEA DOVE	TOTAL	AVERAGE
2001	1,344	68,675 (41%)	33,500 (20%)	65,356 (39%)	*	167,431	124
2002	1,398	58,380 (35%)	25,020 (15%)	75,060 (45%)	8,340 (5%)	166,867	112
2003	1,400	74,336 (44%)	18,584 (11%)	67,578 (40%)	8,447 (5%)	168,945	122
2004	1,444	31,949 (43%)	8,414 (11%)	31,361 (41%)	4,766 (5%)	76,490	76

Table 9 gives summary figures for the last four seasons. The 2003 Season recorded the highest number of birds. The best average per hunter for a season was that of the 2001 Season. The 2004 Season recorded the lowest number of birds shot and also the lowest average. The low total can be attributed to Hurricane Charlie and the premature closure of the season due to Hurricane Ivan which passed to the south of the island prior to the start of and during the 2004 Shooting Season respectively. However, to have any meaningful understanding of the low average, one would have to examine the weekly figures for the first three weeks of the seasons. This is shown in table 10 and figure 7.

Table 10. Distribution of weekly totals for the 2001 to 2004 Bird Shooting Seasons

	Weeks						
Bird Shooting Seasons	**1**	**2**	**3**	**4**	**5**	**6**	**% difference between weeks 1 & 3**
2001	27,000	25,000	21,500	18,000	15,500	14,500	21%
2002	37,070	29,541	22,632	19,727	16,163	11,669	39%
2003	30,674	25,635	20,608	18,939	16,656	14,512	33%
2004	30,962	22,292	13,935	553	1,024	11	65%

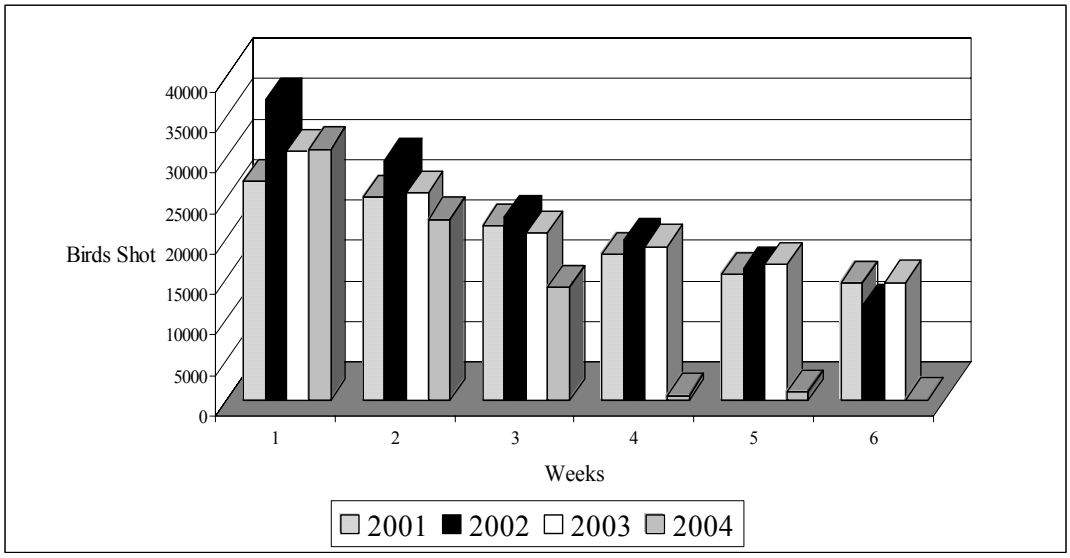

Figure 7. Histogram illustrating comparative distribution of weekly totals for the 2001 to 2004 Bird Shooting Seasons

In all seasons, week one recorded the highest number of birds shot. The 2002 Season recorded the highest total followed by 2004. In fact for the last three seasons, the first weekend recorded in excess of thirty thousand birds. With the exception of the 2004 Season, there is a gradual decline in the numbers shot from week one to week three. This is clearly indicated by the percentage difference for those years, ranging from 21% to 39% decline between those weeks. However, in the 2004 Season the decline was very dramatic, a stunning 65%. An analysis for the remainder of the season with that of past years would not be meaningful since Hurricane Ivan had a severe impact from week 4 onwards.

7.0 Violation

The 2004 Season showed considerable improvement in the violations compared to previous years. However, there was one incident that led to a court case.

7.1 Court Case

On Saturday, August 28, 2004 a monitoring team comprising police personnel and a representative from the National Environment and Planning Agency (NEPA), caught a thirteen year old boy shooting birds without a Hunter's Licence or a Firearms Licence. Further investigation led the monitoring team to the father of the minor. They were arrested and charged for illegal possession of a firearm and ammunition, and shooting without a Hunter's Licence. The father pleaded guilty to the charges in the St. Mary Resident Magistrate's court, where he was fined $100,000 under the Wild Life Protection Act for aiding and abetting hunting without a Hunter's Licence. His son was also fined $50,000.00 for hunting without a Hunter's Licence.

7.2 Warnings

General warnings given to hunters in the field by enforcement officers were:-

- Where persons had one bird above the bag limit; and
- Failure to have Hunter's Licence in their possession.

8.0 Recommendations

1. For a more reliable and timely annual report, monitoring officers will be asked to collect additional data while in the field (the method of collection will be similar to that used by the Fisheries Division, Ministry of Agriculture which is used to provide reports on fish catch). This should start in the 2005 Season where the information collected will be compared with that made by the hunters up to December 31.

2. Criteria for the declaration of Game Reserves must be developed.

3. Amendment of "Form A - Hunter's Bird Shooting Report Form" to include the following:

   "There shall be payable a late processing fee of $5000 in respect of any returns after December 31 of the same year. No subsequent Hunter's Licence shall be granted until the requisite late processing fee is paid and the returns submitted for the last hunting year."