

PERFORMANCE REPORT

State: Louisiana Project Number: W-55

Project Title: Upland Survey

Period Covered: Final Report

Study Number and Title: V-2 - Bobwhite Wing Survey

Study Objective: To determine bobwhite sex and age ratios in Louisiana and approximate hatching dates and bobwhite hunt characteristics.

Study Abstract

A total of 8,403 wings from hunter-bagged bobwhites and one disease study was collected. Males comprised 53.3% of the total and 58.0% of adults. Juveniles comprised 71.7% of the sample. The weighted juveniles per adult hen ratio was 6.2:1 while the weighted juveniles per adult ratio was 2.6:1.

Hunters were provided hunt survey cards for the 1994-2000 seasons and data from 1,140 statewide hunts were collected. The means for quail hunt length, party size, bag per hunt, coveys per hunt, and crippling rate 3.5 hours, 1.7 hunters, 2.6 quail, 1.2 coveys, and 13.0%, respectively.

- A. Activity: 8,403 wings were collected from 1984-2001. Data on age, sex, hatching dates, and hunting characteristics are summarized. Hunt data from wing survey cooperators are summarized.
- B. Target Date of Achievement: June 2003
- C. Date Accomplished: June 2003
- D. Significant Deviations: None
- E. Remarks: none
- F. Recommendations: This survey has been discontinued. The report serves as the final report.

Prepared by:

Frederick G. Kimmel, Upland Game Study Leader

Appendix A

Louisiana Statewide Bobwhite Wing and Hunt Surveys
1984-2000

During the 1984-2000 hunting season, 8,403 bobwhite wings primarily from about 15 parishes were collected from wing survey participants. The greatest number of wings was collected during December (3,309-44%). January, February, and November ranked second, third and fourth with 2,256 (27%), 1,325 (16%), and 930 (11%) wings respectively. (Another 470 wings either had no specific date associated with them or were collected during other studies.) Males comprised 53.2% of all sexed wings collected and 51.4% of the juveniles. Females comprised 42.0% of the adults (Tables 1-3), which is within the range reported in the literature.

The some of the production indices were similar to the literature while others appeared somewhat high. Juveniles comprised 73.9% of the sample. The juvenile per adult hen ratio (6.2:1) appeared somewhat high, but was extremely variable (range: 4.3-10.6:1). The juvenile per adult ratio was 2.6:1 and less variable than the per adult female ratio. Nonetheless, the magnitude of the range was similar (1.9-4.6:1).

Using immature birds and subadults harvested during the November portion of Louisiana's season, a production chronology graph was made (Figure 1). The importance of July and August to quail production is clearly illustrated. Only 19% of almost 2,000 quail hatched prior to July 4th while over 75% hatch after July 17th. Hunters usually report better hunting seasons when "late" hatches occur.

Although no good correlation has been made specifically between summer rainfall and production, most quail managers believe that higher production indices are usually associated with wetter and cooler than normal summer weather. During the 17 years when wings were collected, all extremes of weather conditions have occurred. Production "appeared" high even in some drought years. It is not known whether this was real or a function of lower adult hen survival.

Hunt questionnaires were supplied to wing cooperators from 1994-2000. Party size varied from 1-4 with a mean of 1.7 hunters per party (Table 4). The mean bag per hunt was 2.6 quail with a range of 0-19. Crippling loss ranged from 0-4 birds, with a mean of 0.40 birds per hunt. This equates to a crippling rate of 13.0%, which is within the normal range. Hunts lasted from 0.5 to 12.0 hours, with a mean of 3.5 hours. Hunters averaged finding 1.3 coveys per hunt (range 0-8). December and January accounted for 66.5% of the hunting efforts. Little difference in effort was recorded during November and February even though the season is only open about 2 weeks during November. Mean bag was lowest during February ($P \geq 0.5$) (Table 5). No quail were bagged on 28.9% of the hunts.

DEFINITIONS

Immature: less than 150 days old
Subadult: greater than 150 days old but less than 1 year old
Hatch Year: could not age to immature or subadult because of wing condition
Juvenile: immatures, subadults, and hatch year collectively
Adult: greater than 1 year old

Table 1. Age characteristics of 8,400 bobwhite wings collected statewide during the 1984-2000 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	2,336	27.8	2,336	27.8
Hatch Year	47	0.6	2,383	28.4
Immature	1,605	19.1	3,988	47.5
Subadult	4,372	52.0	8,360	99.5
Unknown	40	0.5	8,400	100.0

Table 2. Age and sex characteristics of 8,157 bobwhite wings collected statewide during the 1984-2000 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	3,006 (69.1%)	1,343 (30.9%)		
	Female	2,837 (74.5%)	971 (25.5%)		
	Juvenile			3,006 (51.4%)	2,837 (48.6%)
	Adult			1,343 (58.0%)	971 (42.0%)

Table 3. Production indices from 8,341 bobwhite wings collected statewide during the 1984-2000 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	1,343	<i>Per Adult</i>
Adult Female	971	2.6
Juvenile Males	3,006	<i>Per Adult Hen</i>
Juvenile Females	2,837	6.2
Juveniles Unknown Sex	184	

Table 4. Hunt characteristics from 1140 hunters during the 1994-2000 hunting seasons.

Variable	N	Min.	Max.	Mean	SE
Bag	1056	0	19	2.6	0.091
Coveys	1035	0	8	1.3	0.035
Cripples	989	0	4	0.4	0.023
CripRate	731	0	1	0.13	0.006
Hours	1046	0.5	12	3.5	0.060
Hunters	1047	1	4	1.7	0.021

Table 5. Mean bag per month for hunting seasons 1994-2000.

Month	N	Mean	Duncan Grouping	
December	386	2.80	A	
November	162	2.73	A	
January	323	2.45	A	B
February	185	2.09		B

Louisiana Quail Hatch By Week

Summers of 1984 - 2000

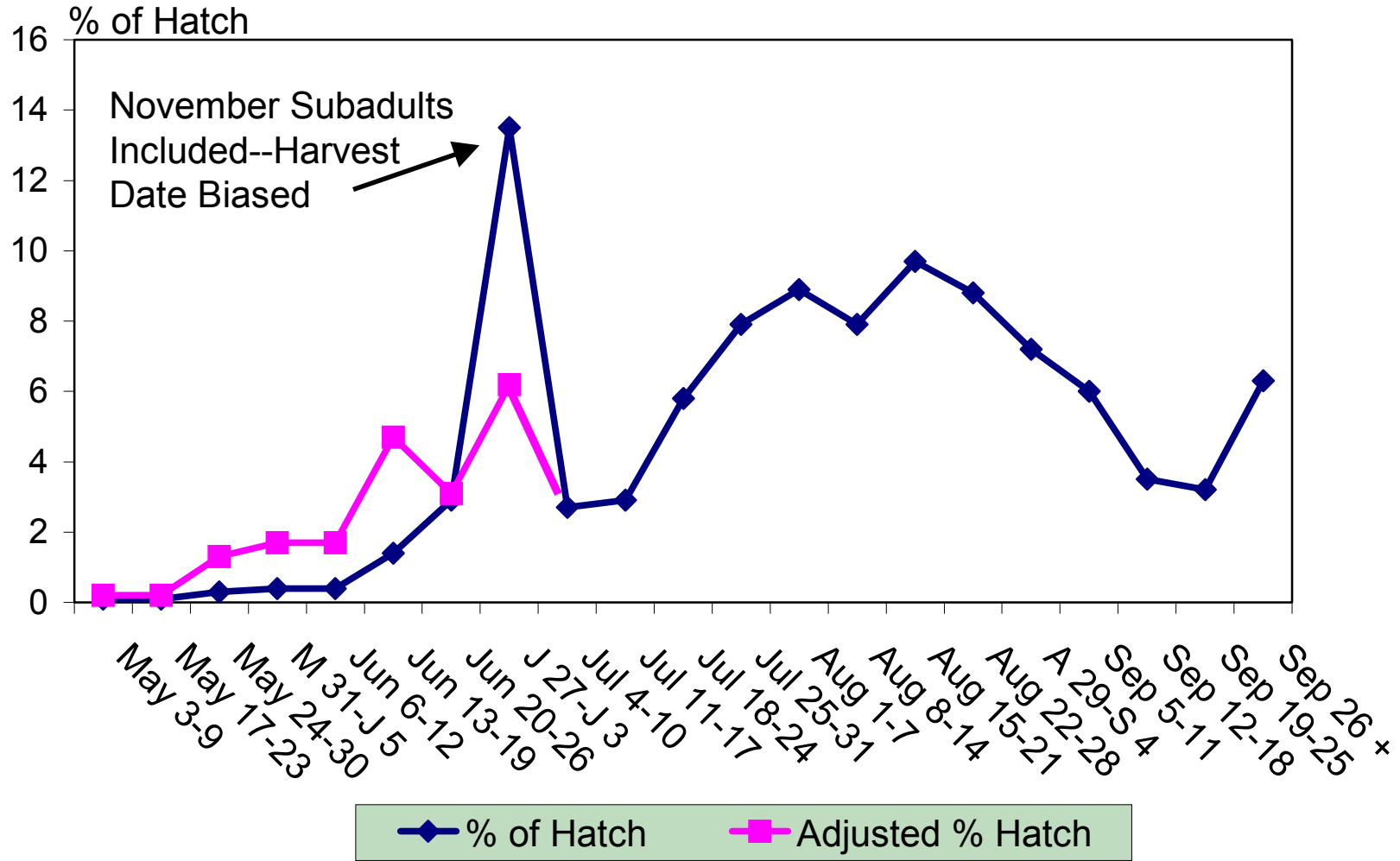


Figure 1

Appendix B

1984-85 Season Summary Statistics

Table 1. Age characteristics of 969 bobwhite wings collected statewide during the 1984 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	272	28.1	272	28.1
Hatch Year	5	0.5	277	28.6
Immature	110	11.4	387	39.9
Subadult	575	59.3	962	99.3
Unknown	7	0.7	969	100.0

Table 2. Age and sex characteristics of 961 bobwhite wings collected statewide during the 1984 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	357 (70.3%)	151 (29.7%)		
	Female	332 (74.0%)	121 (26.0%)		
	Juvenile			357 (51.8%)	332 (48.2%)
	Adult			151 (55.5%)	121 (44.5%)

Table 3. Production indices from 962 bobwhite wings collected statewide during the 1984 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	151	<i>Per Adult</i>
Adult Female	121	2.5
Adults Unknown Sex	0	
Juvenile Males	357	<i>Per Adult Hen</i>
Juvenile Females	332	5.7
Juveniles Unknown Sex	1	

1985-86 Season Summary Statistics

Table 1. Age characteristics of 778 bobwhite wings collected statewide during the 1985 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	259	33.3	259	33.3
Hatch Year	1	0.1	260	33.4
Immature	84	10.8	344	44.2
Subadult	418	53.7	762	97.9
Unknown	16	2.1	778	100.0

Table 2. Age and sex characteristics of 762 bobwhite wings collected statewide during the 1985 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	250 (63.1%)	146 (36.9%)		
	Female	253 (69.1%)	113 (28.9%)		
	Juvenile			250 (49.7%)	253 (50.3%)
	Adult			146 (56.4%)	113 (43.6%)

Table 3. Production indices from 762 bobwhite wings collected statewide during the 1985 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	146	<i>Per Adult</i>
Adult Female	113	1.9
Adults Unknown Sex	0	
Juvenile Males	250	<i>Per Adult Hen</i>
Juvenile Females	253	4.5
Juveniles Unknown Sex	0	

1986-87 Season Summary Statistics

Table 1. Age characteristics of 1,299 bobwhite wings collected statewide during the 1986 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	369	28.4	369	28.4
Hatch Year	4	0.3	373	28.7
Immature	162	12.5	535	41.2
Subadult	755	58.1	1,290	99.3
Unknown	9	0.7	1,299	100.0

Table 2. Age and sex characteristics of 1,280 bobwhite wings collected statewide during the 1986 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	467 (69.1%)	219 (31.9%)		
	Female	446 (75.1%)	148 (24.9%)		
	Juvenile			467 (51.2%)	446 (48.8%)
	Adult			219 (59.7%)	148 (40.3%)

Table 3. Production indices from 1,290 bobwhite wings collected statewide during the 1986 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	219	<i>Per Adult</i>
Adult Female	148	2.5
Adults Unknown Sex	2	
Juvenile Males	467	<i>Per Adult Hen</i>
Juvenile Females	446	6.2
Juveniles Unknown Sex	8	

1987-88 Season Summary Statistics

Table 1. Age characteristics of 549 bobwhite wings collected statewide during the 1987 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	146	26.6	146	26.6
Hatch Year	1	0.2	147	26.8
Immature	120	21.9	267	48.6
Subadult	282	51.4	549	100.0
Unknown	0	0.0	549	100.0

Table 2. Age and sex characteristics of 549 bobwhite wings collected statewide during the 1987 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	217 (70.9%)	86 (29.1%)		
	Female	186 (75.6%)	60 (24.4%)		
	Juvenile			217 (53.8%)	186 (46.2%)
	Adult			86 (58.9%)	60 (41.1%)

Table 3. Production indices from 549 bobwhite wings collected statewide during the 1987 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	86	<i>Per Adult</i>
Adult Female	60	2.8
Adults Unknown Sex	0	
Juvenile Males	217	<i>Per Adult Hen</i>
Juvenile Females	186	6.7
Juveniles Unknown Sex	0	

1988-89 Season Summary Statistics

Table 1. Age characteristics of 270 bobwhite wings collected statewide during the 1988 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	94	34.8	94	34.8
Hatch Year	2	0.8	96	35.6
Immature	60	22.2	156	57.8
Subadult	114	42.2	270	100.0
Unknown	0	0.0	270	100.0

Table 2. Age and sex characteristics of 267 bobwhite wings collected statewide during the 1988 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	78 (55.7%)	62 (44.3%)		
	Female	95 (60.5%)	62 (39.5%)		
	Juvenile			78 (45.1%)	95 (54.9%)
	Adult			62 (66.0%)	32 (34.0%)

Table 3. Production indices from 270 bobwhite wings collected statewide during the 1988 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	62	<i>Per Adult</i>
Adult Female	32	1.9
Adults Unknown Sex	0	
Juvenile Males	78	<i>Per Adult Hen</i>
Juvenile Females	95	5.5
Juveniles Unknown Sex	3	

1989-90 Season Summary Statistics

Table 1. Age characteristics of 197 bobwhite wings collected statewide during the 1989 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	51	25.9	51	25.9
Hatch Year	0	0.0	51	25.9
Immature	47	23.9	98	49.8
Subadult	99	50.2	197	100.0
Unknown	0	0.0	197	100.0

Table 2. Age and sex characteristics of 193 bobwhite wings collected statewide during the 1989 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	73 (71.6%)	29 (28.4%)		
	Female	69 (75.8%)	22 (24.2%)		
	Juvenile			73 (51.4%)	69 (48.6%)
	Adult			29 (56.9%)	22 (33.1%)

Table 3. Production indices from 197 bobwhite wings collected statewide during the 1989 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	29	<i>Per Adult</i>
Adult Female	22	2.9
Adults Unknown Sex	0	
Juvenile Males	73	<i>Per Adult Hen</i>
Juvenile Females	69	6.6
Juveniles Unknown Sex	4	

1990-91 Season Summary Statistics

Table 1. Age characteristics of 468 bobwhite wings collected statewide during the 1990 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	114	24.4	114	24.4
Hatch Year	3	0.6	117	25.0
Immature	92	19.7	209	44.7
Subadult	257	54.9	466	99.6
Unknown	2	0.4	468	100.0

Table 2. Age and sex characteristics of 442 bobwhite wings collected statewide during the 1990 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	186 (72.1%)	72 (27.9%)		
	Female	143 (78.6%)	39 (21.4%)		
	Juvenile			186 (56.5%)	143 (43.5%)
	Adult			72 (64.9%)	39 (35.1%)

Table 3. Production indices from 466 bobwhite wings collected statewide during the 1990 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	72	<i>Per Adult</i>
Adult Female	39	3.1
Adults Unknown Sex	3	
Juvenile Males	186	<i>Per Adult Hen</i>
Juvenile Females	143	9.0
Juveniles Unknown Sex	23	

1991-92 Season Summary Statistics

Table 1. Age characteristics of 657 bobwhite wings collected statewide during the 1991 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	118	18.0	118	18.0
Hatch Year	4	0.6	122	18.6
Immature	209	31.8	331	50.4
Subadult	326	49.6	657	100.0
Unknown	0	0.0	657	100.0

Table 2. Age and sex characteristics of 617 bobwhite wings collected statewide during the 1991 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	245 (79.0%)	65 (21.0%)		
	Female	256 (83.4%)	51 (16.6%)		
	Juvenile			245 (48.9%)	256 (51.1%)
	Adult			65 (56.0%)	51 (44.0%)

Table 3. Production indices from 657 bobwhite wings collected statewide during the 1991 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	65	<i>Per Adult</i>
Adult Female	51	4.6
Adults Unknown Sex	2	
Juvenile Males	245	<i>Per Adult Hen</i>
Juvenile Females	256	10.6
Juveniles Unknown Sex	38	

1992-93 Season Summary Statistics

Table 1. Age characteristics of 528 bobwhite wings collected statewide during the 1992 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	177	33.5	177	33.5
Hatch Year	6	1.1	183	34.7
Immature	139	26.3	322	61.0
Subadult	204	38.6	526	99.6
Unknown	2	0.4	528	100.0

Table 2. Age and sex characteristics of 518 bobwhite wings collected statewide during the 1992 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	169 (71.5%)	106 (38.5%)		
	Female	170 (70.8%)	70 (29.2%)		
	Juvenile			169 (50.0%)	170 (50.0%)
	Adult			106 (59.8%)	70 (40.2%)

Table 3. Production indices from 425 bobwhite wings collected statewide during the 1992 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	106	<i>Per Adult</i>
Adult Female	70	2.0
Adults Unknown Sex	1	
Juvenile Males	169	<i>Per Adult Hen</i>
Juvenile Females	170	5.0
Juveniles Unknown Sex	9	

1993-94 Season Summary Statistics

Table 1. Age characteristics of 425 bobwhite wings collected statewide during the 1993 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	120	28.2	120	28.2
Hatch Year	1	0.2	121	28.5
Immature	93	21.9	214	50.4
Subadult	208	48.9	422	99.3
Unknown	3	0.7	425	100.0

Table 2. Age and sex characteristics of 442 bobwhite wings collected statewide during the 1993 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	144 (66.1%)	74 (33.9%)		
	Female	152 (66.8%)	46 (23.2%)		
	Juvenile			144 (49.6%)	152 (51.4%)
	Adult			74 (61.7%)	46 (38.3%)

Table 3. Production indices from 422 bobwhite wings collected statewide during the 1993 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	74	<i>Per Adult</i>
Adult Female	46	2.5
Adults Unknown Sex	0	
Juvenile Males	144	<i>Per Adult Hen</i>
Juvenile Females	152	6.6
Juveniles Unknown Sex	6	

1994-95 Season Summary Statistics

Table 1. Age characteristics of 599 bobwhite wings collected statewide during the 1994 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	138	23.0	138	23.0
Hatch Year	1	0.2	139	23.2
Immature	152	25.4	291	48.6
Subadult	308	51.4	599	100.0
Unknown	0	0.0	599	100.0

Table 2. Age and sex characteristics of 570 bobwhite wings collected statewide during the 1994 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	233 (74.0%)	82 (26.0%)		
	Female	203 (79.6%)	52 (20.4%)		
	Juvenile			233 (53.1%)	203 (46.9%)
	Adult			82 (61.2%)	52 (38.8%)

Table 3. Production indices from 599 bobwhite wings collected statewide during the 1994 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	82	<i>Per Adult</i>
Adult Female	52	3.3
Adults Unknown Sex	4	
Juvenile Males	233	<i>Per Adult Hen</i>
Juvenile Females	203	8.9
Juveniles Unknown Sex	25	

1995-96 Season Summary Statistics

Table 1. Age characteristics of 350 bobwhite wings collected statewide during the 1995 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	115	32.9	115	32.9
Hatch Year	1	0.3	116	33.1
Immature	52	14.9	168	48.0
Subadult	182	52.0	350	100.0
Unknown	0	0.0	350	100.0

Table 2. Age and sex characteristics of 314 bobwhite wings collected statewide during the 1995 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	105 (63.6%)	60 (36.4%)		
	Female	94 (63.1%)	55 (36.9%)		
	Juvenile			105 (52.8%)	94 (47.2%)
	Adult			60 (52.2%)	55 (47.8%)

Table 3. Production indices from 350 bobwhite wings collected statewide during the 1995 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	60	<i>Per Adult</i>
Adult Female	55	2.0
Adults Unknown Sex	0	
Juvenile Males	105	<i>Per Adult Hen</i>
Juvenile Females	94	4.3
Juveniles Unknown Sex	36	

1996-97 Season Summary Statistics

Table 1. Age characteristics of 419 bobwhite wings collected statewide during the 1996 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	106	25.3	106	25.3
Hatch Year	13	3.1	119	28.4
Immature	117	27.9	236	56.3
Subadult	182	43.4	418	99.8
Unknown	1	0.2	419	100.0

Table 2. Age and sex characteristics of 403 bobwhite wings collected statewide during the 1996 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	155 (77.5%)	45 (22.5%)		
	Female	143 (70.4%)	60 (29.6%)		
	Juvenile			155 (52.0%)	143 (48.0%)
	Adult			45 (46.9%)	60 (57.1%)

Table 3. Production indices from 418 bobwhite wings collected statewide during the 1996 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	45	<i>Per Adult</i>
Adult Female	60	2.9
Adults Unknown Sex	1	
Juvenile Males	155	<i>Per Adult Hen</i>
Juvenile Females	143	5.2
Juveniles Unknown Sex	14	

1997-98 Season Summary Statistics

Table 1. Age characteristics of 268 bobwhite wings collected statewide during the 1997 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	72	26.9	72	26.9
Hatch Year	3	1.1	75	28.0
Immature	54	20.2	129	48.1
Subadult	139	51.9	268	100.0
Unknown	0	0.0	268	100.0

Table 2. Age and sex characteristics of 252 bobwhite wings collected statewide during the 1997 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	104 (75.9%)	33 (24.1%)		
	Female	85 (73.9%)	30 (26.1%)		
	Juvenile			104 (55.0%)	85 (45.0%)
	Adult			33 (52.4%)	30 (47.6%)

Table 3. Production indices from 268 bobwhite wings collected statewide during the 1997 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	33	<i>Per Adult</i>
Adult Female	30	2.7
Adults Unknown Sex	9	
Juvenile Males	104	<i>Per Adult Hen</i>
Juvenile Females	85	6.5
Juveniles Unknown Sex	7	

1998-99 Season Summary Statistics

Table 1. Age characteristics of 237 bobwhite wings collected statewide during the 1998 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	78	32.9	78	32.9
Hatch Year	1	0.4	79	33.3
Immature	41	17.3	120	50.6
Subadult	117	49.4	237	100.0
Unknown	0	0.0	237	100.0

Table 2. Age and sex characteristics of 237 bobwhite wings collected statewide during the 1998 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	79 (63.2%)	46 (36.8%)		
	Female	80 (71.4%)	32 (28.6%)		
	Juvenile			79 (49.7%)	80 (50.3%)
	Adult			46 (59.0%)	32 (41.0%)

Table 3. Production indices from 466 bobwhite wings collected statewide during the 1998 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	46	<i>Per Adult</i>
Adult Female	32	2.0
Adults Unknown Sex	0	
Juvenile Males	79	<i>Per Adult Hen</i>
Juvenile Females	80	5.0
Juveniles Unknown Sex	0	

1999-00 Season Summary Statistics

Table 1. Age characteristics of 208 bobwhite wings collected statewide during the 1999 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	51	24.5	51	24.5
Hatch Year	1	0.5	52	25.0
Immature	45	21.6	97	46.6
Subadult	111	53.4	208	100.0
Unknown	0	0.0	208	100.0

Table 2. Age and sex characteristics of 198 bobwhite wings collected statewide during the 1999 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	79 (72.5%)	30 (27.5%)		
	Female	68 (76.4%)	21 (23.6%)		
	Juvenile			79 (53.7%)	68 (46.3%)
	Adult			30 (58.9%)	21 (41.1%)

Table 3. Production indices from 208 bobwhite wings collected statewide during the 1999 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	30	<i>Per Adult</i>
Adult Female	21	3.1
Adults Unknown Sex	0	
Juvenile Males	79	<i>Per Adult Hen</i>
Juvenile Females	68	7.5
Juveniles Unknown Sex	10	

2000-01 Season Summary Statistics

Table 1. Age characteristics of 179 bobwhite wings collected statewide during the 2000 hunting seasons.

Age	Frequency	Percent	Cum. Freq.	Cum. Percent
Adult	56	31.3	56	31.3
Hatch Year	0	0.0	56	31.3
Immature	28	15.6	84	46.9
Subadult	95	53.1	179	100.0
Unknown	0	0.0	179	100.0

Table 2. Age and sex characteristics of 179 bobwhite wings collected statewide during the 2000 hunting seasons.

		Cohort			
		Juvenile	Adult	Male	Female
Cohort	Male	64 (63.4%)	37 (36.6%)		
	Female	59 (75.6%)	19 (24.4%)		
	Juvenile			64 (66.1%)	59 (48.0%)
	Adult			37 (64.1%)	19 (33.9%)

Table 3. Production indices from 179 bobwhite wings collected statewide during the 2000 hunting seasons.

Age and Sex	Frequency	Production Index
Adult Male	37	<i>Per Adult</i>
Adult Female	19	2.2
Adults Unknown Sex	0	
Juvenile Males	64	<i>Per Adult Hen</i>
Juvenile Females	59	6.5
Juveniles Unknown Sex	0	