

UNITED STATES BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
 DEPARTMENT OF AGRICULTURE

By H. Thomas L. Cutler and George S. Blaha, Jr.  
 (With 10 Figures)

CONTENTS

Field Service KVMA (M...)  
 P. Manag... Area (Og...)

TABLES OF FIELD DATA

- 1. KVMA April 2 - May 10
- 2. KVMA May 16 - July 5
- 3. KVMA
- 4. General

GENERAL FIELDING TABLES

- 5. KVMA
- 6. KVMA
- 7. KVMA
- 8. General

DETAILS OF FIELD CONTENTS

- 9. KV Nest, Eggs and Young (No. CB Control)
- 10. KV Nest and Eggs, with CB Control
- 11. KV Young
- 12. KV Nest and Eggs ( " " )
- 13. KV Young ( " " )

OSMAN TABLES OF SUMMARIES OF KV NESTS

- 14. 956
- 15. 957
- 16. 958

OSMAN TABLES OF SPECIES OTHER THAN KV AT OSMAN

- 17. 956
- 18. 957 and 1968

SUMMARY OF CB CONTROL AND KV PARASITISM 1963-1971

# U.S. FOREST SERVICE KIRTLAND'S WARBLER MANAGEMENT AREA

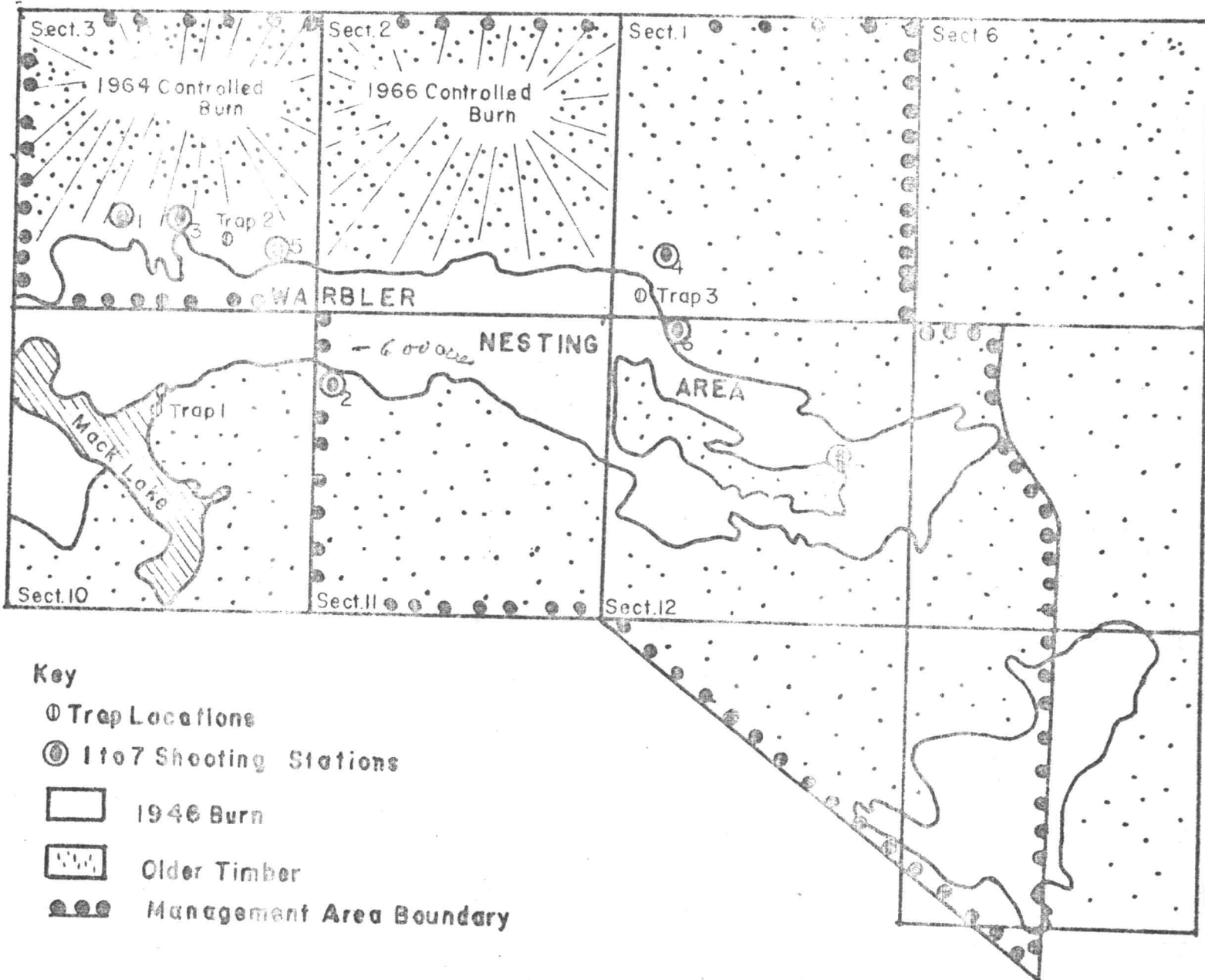
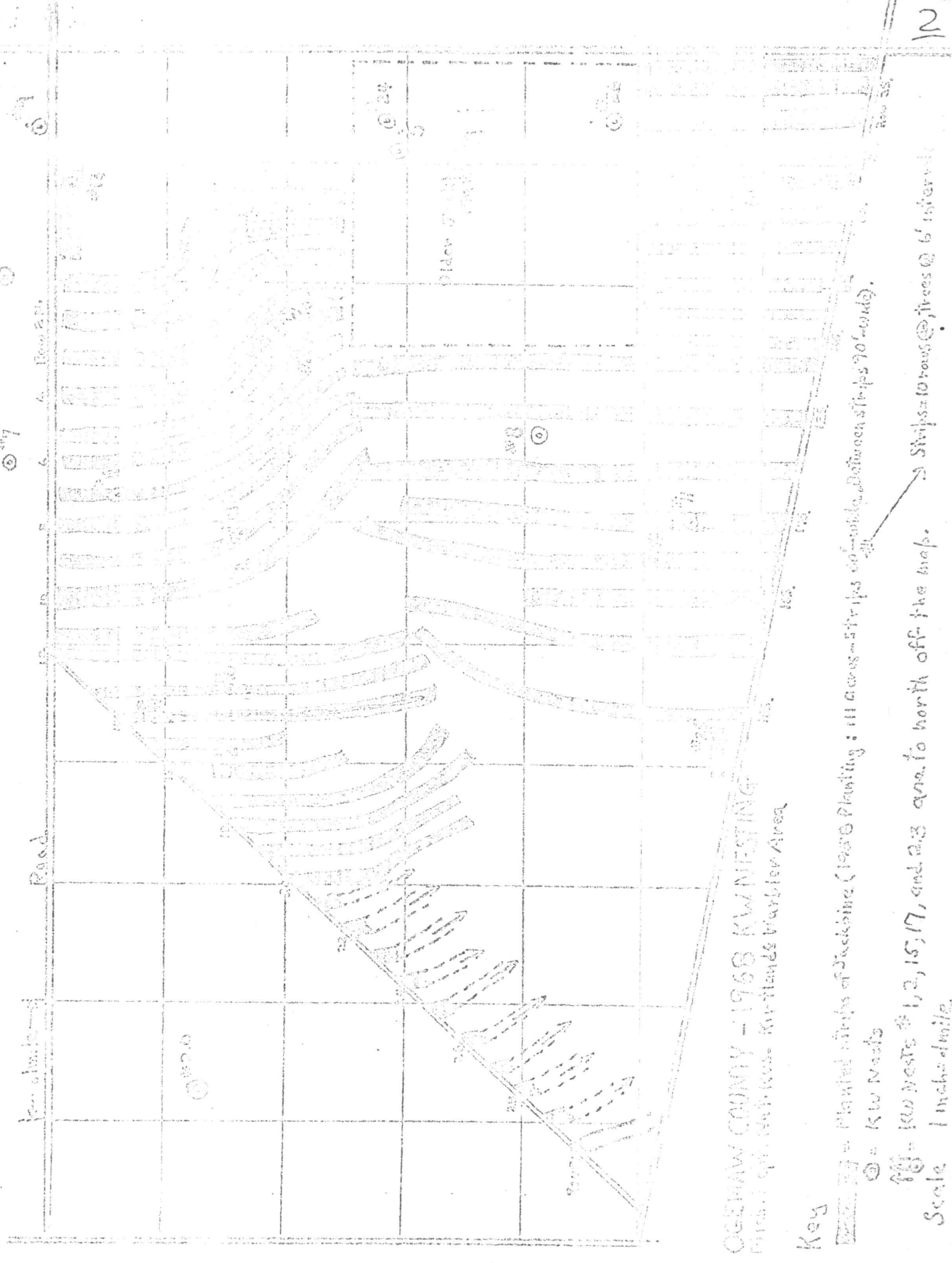


FIGURE 7



OGDEN COUNTY - 1968 K.W. NESTING  
 11 acres - strips 60' wide, between strips 70' wide

Key

Planted strips of Japanese Knotweed (1968) Planting: 11 acres - strips 60' wide, between strips 70' wide.

○ = K.W. Nests

Wavy line = K.W. Nests #1, 2, 15, 17, and 23 area to north off the map.

Scale 1 inch = 1 mile



Date	Year	Month	Day	Time	Location	Activity	Remarks	Notes
Shooting Station	2010	10	10	10:00	10:10	10:20	10:30	10:40
Time (AM)	10:10	10:20	10:30	10:40	10:50	11:00	11:10	11:20
No. of Hours	1	1	1	1	1	1	1	1
Sex or Age	6	7	8	9	10	11	12	13
1st Hour	2	3	4	5	6	7	8	9
2nd Hour	0	1	2	3	4	5	6	7
3rd Hour	1	2	3	4	5	6	7	8
4th Hour	0	1	2	3	4	5	6	7
5th Hour	1	2	3	4	5	6	7	8
Totals by Sex	4	5	6	7	8	9	10	11
Totals per hour	1	2	3	4	5	6	7	8

\* Males are included in the totals for each hour.  
 \* Total number of birds shot per station is 2.  
 \* Birds are shot in pairs.









Table 4

1967 Brown-headed Cowbird Trapping at the Kirtland's Warbler  
Management Area, Mio, Michigan

Dates (5-day intervals)	Trap #2 (baited May 10)			Trap #3 (baited May 10)			Totals
	♂♂	♀♀ Juveniles		♂♂	♀♀ Juveniles		
May 13-17*	53	61		31	30		175
18-22	10	18		5	4		37
23-27	17	2		15			31
28-June 1	10	2		1			13
June 2-6	13	3		8	1		25
7-11	21	1		20	3		45
12-16	19	6		6	1		32
17-21	41	3					44
22-26	45			24			69
27-July 1	33			10			48
2-6	39	6	2	19	2		68
7-11	92	3	7	25	7	1	135
12-16	49	25	10	6	7	4	101
17-21	7	31	201	2	19	70	330
22-23**		2	69	1		65	127
Totals	454	163	289	173	74	140	1295

\* Baited May 10. First count of trapped birds on May 13. Therefore, this trap period represents May 10 - 17 (8 days).

\*\* 2-day interval

200 traps needed toward trapping at the

Date	1949		1950		1951		Total
	♂	♀	♂	♀	♂	♀	
May 18			2	0	7	14	
19			14	0	1	12	
20			14	1	11	11	
June 2			8	1	1	0	
7			22	2	47	4	
14			49	0	1	0	
17			17	1	0	1	
20			0	0	1	0	
27			11	1	1	1	
July 2			14	1	2	2	
9			0	11	0	11	
16			1	10	10	1	
23			0	4	10	10	
30			1	1	16	1	
Aug 6			0	0	11	0	
Sept 3			146	10	111	10	
10			1	10	1	1	
17			110	1	11	1	

Traps were set in the season (July 1-18) to check for the presence of the

TABLE 10

1977 Brown-capped Cowbird Trapping at an Ogilby County  
Kirtland's Warbler Breeding Area

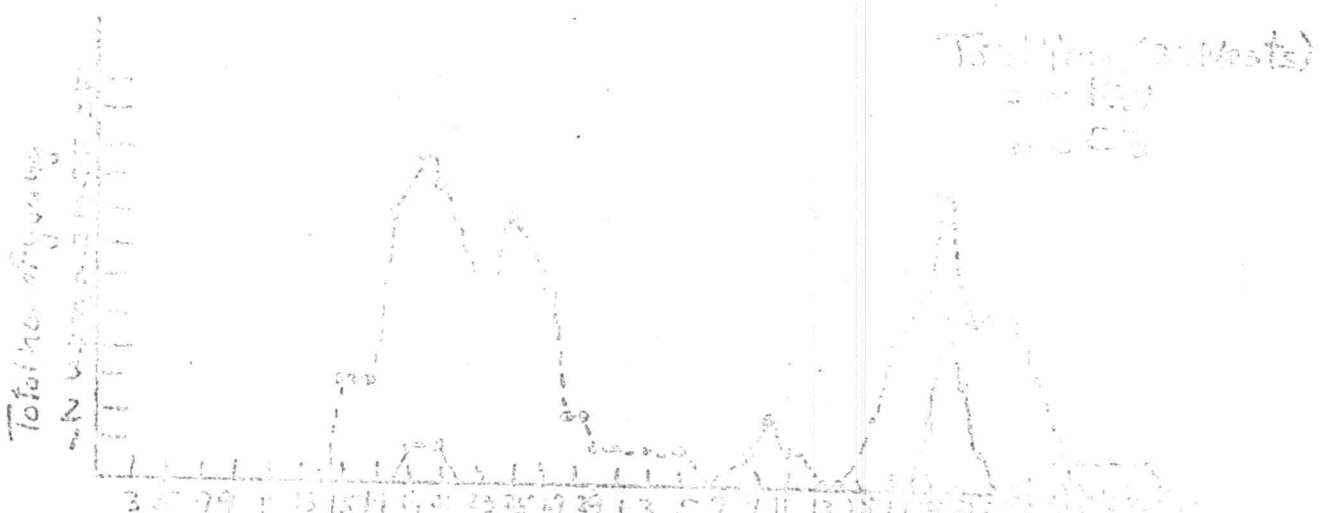
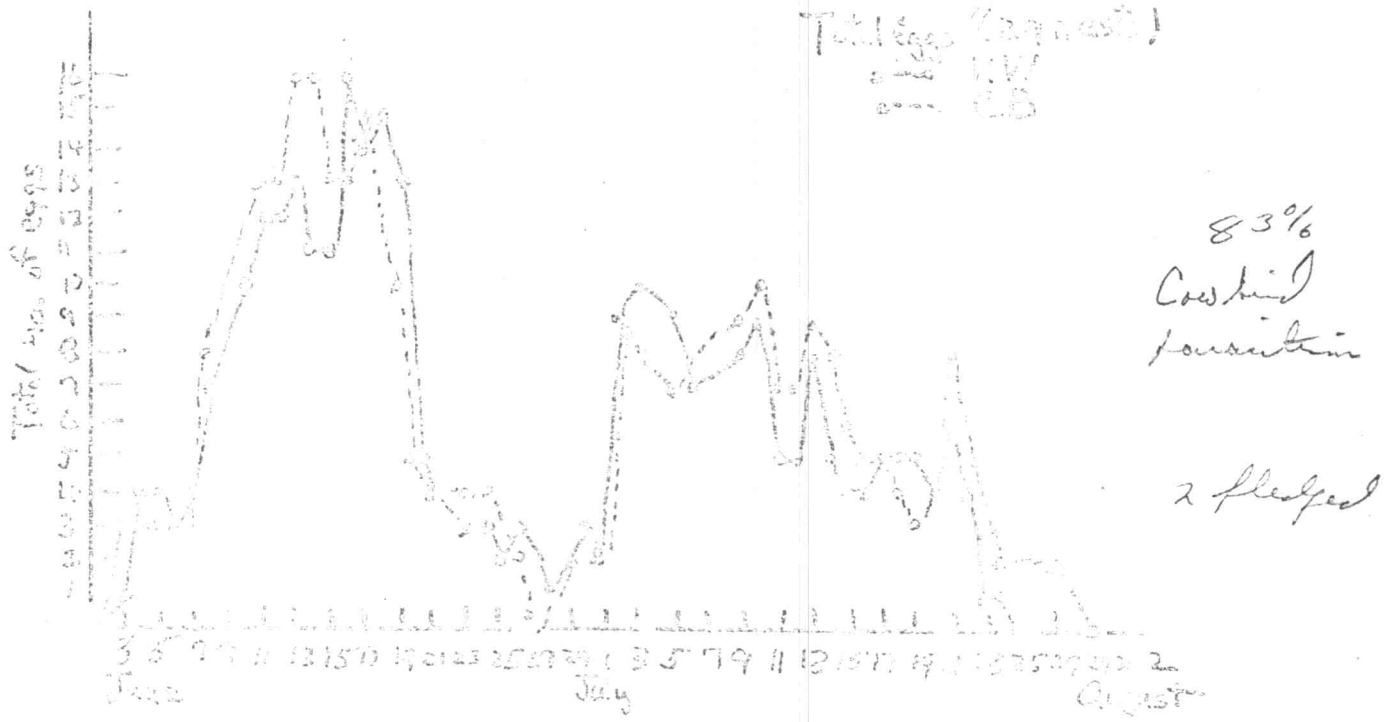
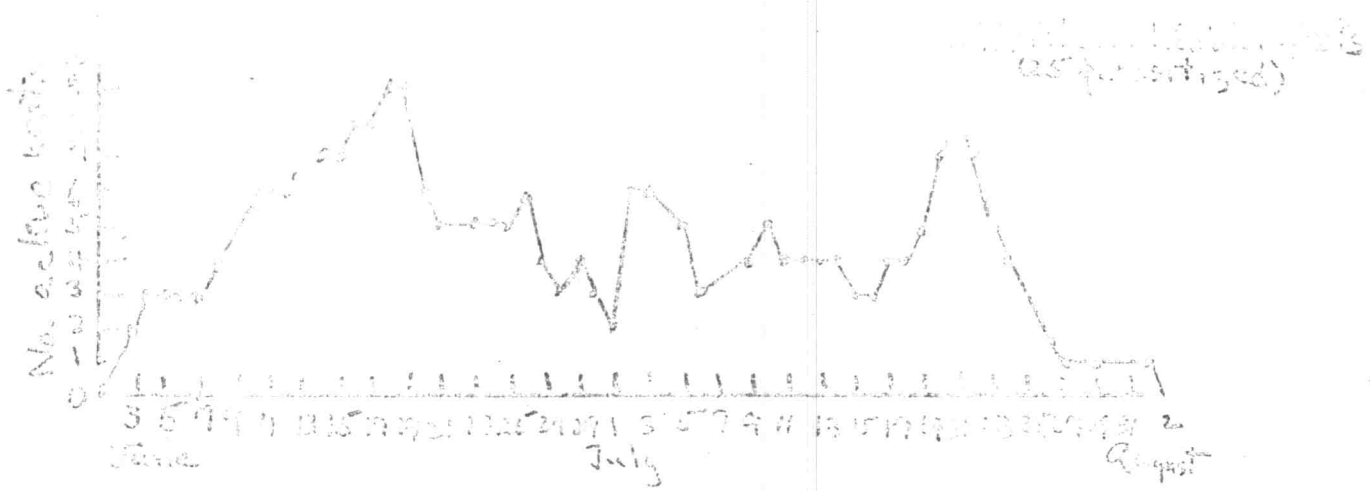
Dates (5-day interval)	Trap A (baited May 6)			Totals
	♂♂	♀♀	Sex Unk.	
May 8-12*	11	20		31
13-17	46	54		100
18-22	16	26		42
23-27	37	30		67
28-June 1	9	4		13
June 2-6	13	1		14
7-11	4	3		7
12-16	11	4		15
17-21**	1			1
22-26**	15			15
27-July 1	22	1		23
July 2-6	33	4		37
7-11	45	5	1	51
12-16	94	11	16	121
17-21	30	48	127	205
22-23***	3	2	109	114
TOTALS	390	213	293	896

\* Baited May 6. First count of trapped birds May 8. Therefore, this period represents May 6 to 12 (7 days).

\*\* June 19 to 21. Trap empty, 16 birds had escaped. Rebaited with five birds on June 22.

\*\*\* 2-day interval.

MICHOYPT. SALRES: KIRTLAND'S COARBLED AREA  
O.G. LEWIS COUNTY - 1966 - NO COVERED CONTROL - 29 NESTS



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20 fledge

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July

# COLEMAN STATION DEPT. KIRTLAND'S WHEATER AREA COUNTING IN NESTS - 1967 - Cowbird Control

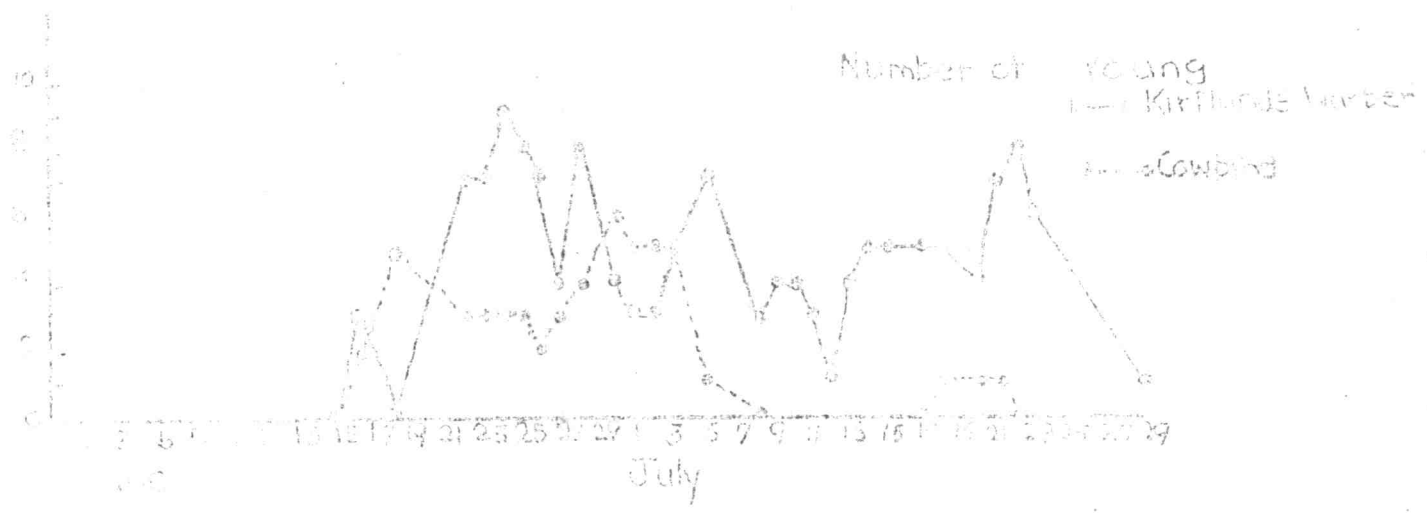


Figure 14

CONSERVATION DEPT. KIRTLAND'S WARBLER AREA (open)  
 NESTS AND EGGS - 1968 - Cowbird Control 26 Nests

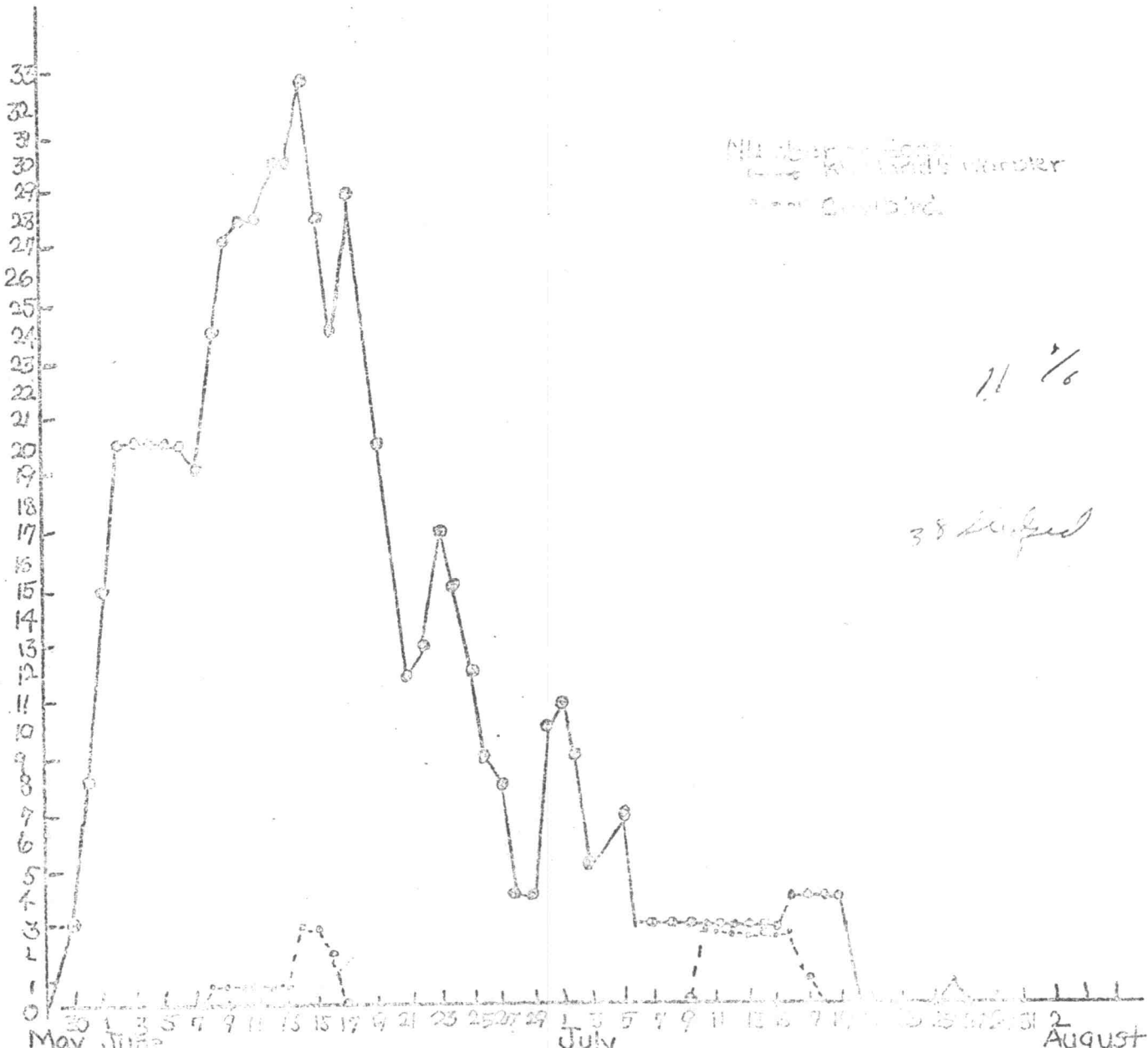
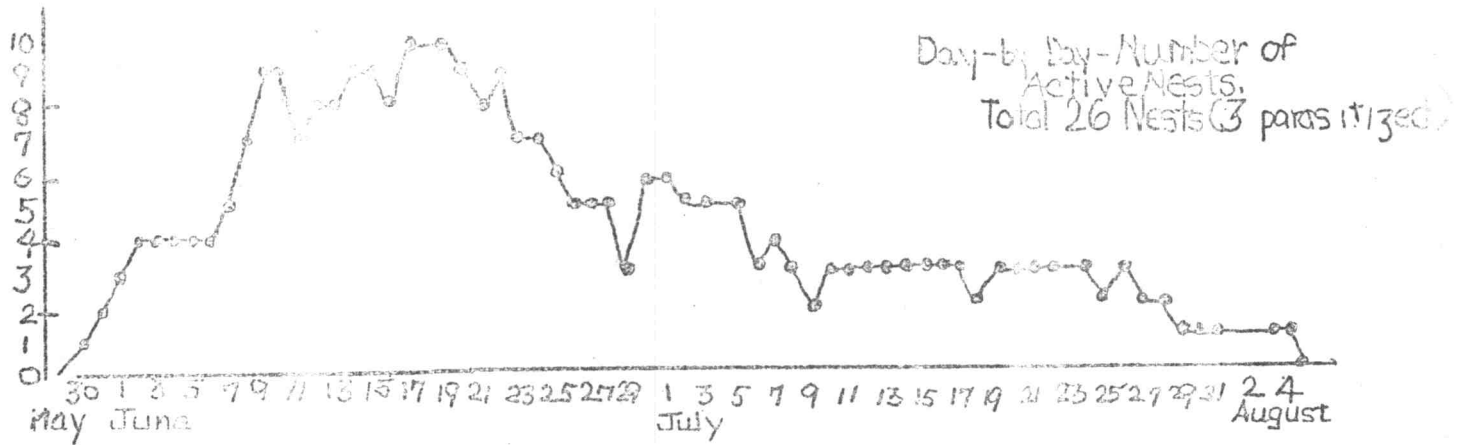
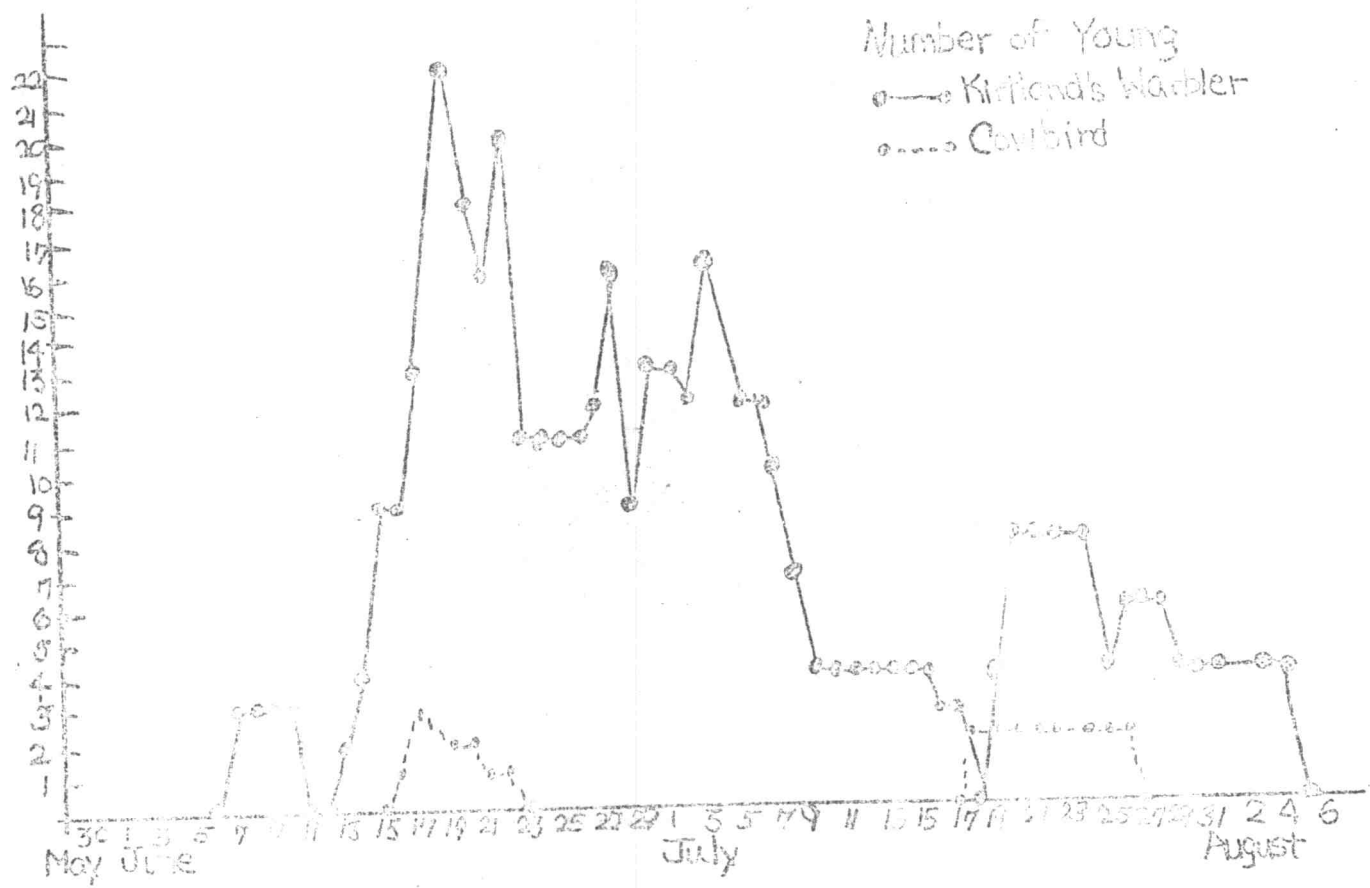


Figure 15

CONSERVATION DEPT. KIRTLAND'S WARBLER AREA (Ogemaw Co)  
 YOUNG IN NESTS - 1968 - Cowbird Control





TABIE 16

1955-56. January - August. Six years of

Nest Number	"Eggs"		Young		Fledged		Remarks	Incubation Period
	1	2	KW	CB	KW	CB		
1	2	1					Laying CB eggs	1 day inc. empty prod.
2	2	2	1	2			Laying C. & KW eggs	mid-late young. <u>Prod.</u>
3	2						Incubation	<u>Abandoned</u> in incub.
4	3	3					Laying CB eggs	empty. 3 days inc. <u>Prod.</u>
5	3	1					Laying KW egg	empty 1 day after <u>Prod.</u>
6	3	4					Early incub.	empty-late incub. <u>Prod.</u>
7	1	2		1			Mid. incub.	empty-mid. nestling. <u>Prod.</u>
8	1	3		3	2		Mid. incub.	2 CB fledge
9	5						Incubation	Incub. <u>Prod.</u>
10		3		2	1		Mid. incub.	1 CB fledge
11	1	2					Early incub.	Incub. <u>abandon</u>
12	2	(4)	1	4	2		{ Late incub. & hatching	2 CB fledge
13		(5)		2	2		{ Mid. & late nestling stage	2 CB fledge
14	3	2					{ Laying C. & KW eggs	egg shells only @ 4. 1 day incub. <u>Prod.</u>
15		(1)		1			{ Late pin feathers nestling	empty-late pin feathers. <u>Prod.</u>
16	3						Incubation	<u>Abandon</u>
17	4						Laying KW eggs	<u>Abandon</u>
18	1	3		3	1		Laying	1 CB fledge
19	3	2					Laying	15 day inc. <u>No hatch.</u>
20	3	4		2			Mid. Inc.	empty-late. pin feathers. <u>Prod.</u>
21	1	2		2	2		Early incub.	2 CB fledge
22	1	(1)		1	1		Pin feathers unfold.	1 CB fledge
23	1	2					Incubation	empty- <u>Prod.</u>
24	1	(2)	1	2	1		{ KW what the other	1 CB fledge
25	(2)		2		2		{ KW in pin feathers	2 KW fledge
26		(1)		1	1		{ CB in pin feathers	1 CB fledge
27	(2)		2				{ KW in late pin feathers	empty-late. p.f. <u>prod.</u>
28	1	3		1	1		{ late incub.	1 CB fledge
29	(2)	1	1				{ Hatching	red. or abandoned
<b>Totals</b>			8	27	11	15		

TABLE 17

Nest No.	Date	Young		1-edged		Yours. Observations	Nest Outcome
		CB	KW	KW	CB		
1	3					1 egg	Predation
2	4	1	3	1	3	1 egg	Both Fledge
3	4		3			3 eggs	Predation
4	4	2		2		2:2 eggs	CB Fledge
5	5		4		4	5 eggs	KW Fledge
6	4					4:1 eggs	Predation
7	5		4		4	5 eggs	KW Fledge
8	5		5		1	5 eggs	KW Fledge
9	2	3	1	1		3:2 eggs	CB Fledge
10	4	3		1		1:1 eggs; 2 CB young	CB Fledge
11	4		3		3	2 eggs	KW Fledge
12	2	4		4		2:4 eggs	CB Fledge
13	4	2		2	2	3:1 young	KW Fledge
14	4				2	4:1B	KW Fledge
15	4				2	3 eggs	KW Fledge (probable)
16	4				1	4:1 eggs	KW Fledge
17	3	2		1		2:1 eggs; 1 CB young	Dead Young
18	4		4		4	4 eggs	KW Fledge (not certain)
19	4				1	3 eggs	KW Fledge
Total	19	10	24	24	6		

1 - 2 predation (1 predation, 1 dead young, 1 CB); 2 - 3 KW, 5 CB;  
 3 - 2 predation (1 predation, 1 dead young, 1 CB); 4 - 18 KW, 4 CB

1 - 2 predation (1 predation, 1 dead young, 1 CB)

TABLE 18

1954. Annual Summary. Ogemaw State Forest Kirtland's Warbler Area

Nest Number	"Eggs"		Young		Fledged		First Observation	Last Observation
	KW	CB	KW	CB	KW	CB		
1	5						3 eggs	Predation
2	5		5				4 eggs	Predation
3	5		3				5 eggs	Predation
4	2						2 eggs	Predation
5	5		4		3		5 eggs	3 KW Fledge
6	3	1	3	1			5:1 eggs	Predation
7	4						4 eggs	Abandoned
8	5		5		5		1 egg	5 KW Fledge
9	4						1 egg	Abandoned
10	3						3 eggs	Addled
11	4	2	4	1			4 & 2 eggs	Predation
12	5		3		3		5 eggs	3 KW Fledge
13	5		4		4		1 egg 4 young	4 KW Fledge
14	5						4 eggs	Predation
15	1		1		1		1 young	1 KW Fledge
16	5		5		4		4 eggs 1 young	4 Fledge
17	5						5 eggs	Predation
18	4		3				4 eggs	Predation
19	3		3				1 egg	Predation
20	4		4		4		4 young	4 KW Fledge
21	5		4		4		5 eggs	4 KW Fledge
22	4						2 eggs	Predation
23				2		2	3 CB eggs	2 CB Fledge
24	4		4		2		4 eggs	2 KW Fledge
25	4		4		4		4 young	4 KW Fledge
26	4		4		4		1 egg 3 young	4 KW Fledge
Totals	101	3	63	4	38	2		

TABLE 19

1966 Nest Summary of Species\* Other Than Kingbirds &amp; Warblers

Species	Nest	Stage	Young	Stage	Observation	Outcome	Parasitism
Eastern Kingbird	76	1	3	3	3 eggs	Fledged	Fairly frequently parasitized (21 records)
	78	2	3	3	5 young	Fledged	
Brown Thrasher	71	1	3		4 eggs	Predation	Occasionally parasitized (11 records)
	72	2			2 eggs	Predation	
	73	3	3	3	3 eggs	Fledged	
	74	4	4	4	4 eggs	Fledged	
Eastern Bluebird	77	1	2	3?	4 eggs	Fledged?	Warblers frequently parasitized (33 records)
	79	1			2 eggs	Predation	
	80	2	2		5 eggs	2 dead	
	81	3	3	3?	5 eggs	Fledged?	
Vesper Sparrow	75	1	3	3	3 eggs	Fledged	Fairly frequently parasitized (70 records)
	82	2	2	2?	4 eggs	Fledged?	
	83	4	4		4 eggs	Predation?	
Chipping Sparrow	84	1	2		2 eggs, 2 yng	Predation	One of commonest native (over 100 records)
	85	2	3		4 eggs	Predation	
	86	3	4	1	5 eggs, 1 yng	Fledged	
	87	4	4	2	3 eggs	Fledged	
	88	4			4 eggs	Abandoned	
	89	3	3		3 young	Predation	
	90	4			2 eggs	Predation	
Clay-colored Sparrow	91	1	4	4	4 eggs	Fledged	Frequently parasitized (over 50 records)
Totals	12		37**	35			

\* Not included are nests of Mallard (1), Upland Plover (1), Mourning Dove (2), and 7<sup>th</sup> Spar (1)

\*\* Plus one cowbird egg

\*\*\* Plus one cowbird young

T.M. 20

1956-1957. 1956 Summary of Parasitism of Eggs of  
Great Blue Heron in the

Common State Forest Area (DNR Management Report)

1956 (no control). See previous table which was parasitized  
of 21 nests.

1957 (with seabird control)

Blue Jay Kingbird	2 nests
Indigo Bunting	3 nests
Red-winged Blackbird	1 nest
Yellow Sparrow	3 nests (of which 1 parasitized)
Chipping Sparrow	2 nests
Total	11

1958 (with control)

Indigo Bunting	5 nests
Yellow Sparrow	7 nests (of which 1 parasitized)
Chipping Sparrow	5 nests
Blue Jay Kingbird	2 nests
Red Sparrow	3 nests
Total	22

1959 (with control) Summary of Parasitism of Eggs of Great Blue Heron in the Common State Forest Area (DNR Management Report)