

HEIGHTS (meters)

Anne Arundel

Charles County

	A	B	C		A	B	C
10	23	24	21		1	24	
11	25	26	26		2	22	
13	25				7	19	
14	26	27	25		8	no heights	no heights
15	21				10	21	
16	no heights	no heights			11	no heights	
19	no heights	no heights			13	23 27	27
20	22	none	22		14	22	
21	no heights	no heights			15	25	25
27	30				17	32	no heights
30	18				18	23	no heights
33	30				19	16	no heights
34	28				20	no heights	no heights
38	20				21	29	
40	19				22	no heights	no heights
43	28	28			27 27	30	
44	42				29	24	
45	22	22			31	26	
46	38	34	36	no 5 trees	32	28	
48	22 29				33	25	
50	23				35	23	
64	31.4				37	16	
69	24				40	16	
71	21				41	no heights	no heights
72	20				45	19	
73	27				46	23	
80 81	15	no heights			47	17	18
84	26				48	19	20
85	22				49	17	18
86	25	23	24	no tree 4	50	21	23
87	29	no heights			55	26	
88	29	25			56	19	
91	19	19	20		28	22	
93	19						

1979 - average of 5 trees

94	24
95	32
96	28
99	23
104	33
106	32

1979 - average of 5 trees

58	26
59	28
61	23
62	25
68	20
72	19
73	31
77	31
78	27

LITHOGRAPHED IN U.S.A. - ADDISON WESLEY PUBLISHING COMPANY, INC., READING, MASS. 01860

PG. heights

1978

1979

LITHOGRAPHED IN U.S.A. ADDRESS OF THE PUBLISHING COMPANY, INC., READING, MASS. A-W Databank 1014V

	A	B	C		
3	18	18	17	114	26
4	22			116	26
6	32	30	34	121	31
7	19			122	29
8	-			126	30
9	31			127	31
11	27			130	26
12	36			131	20
13	32	-		133	23
15	25			134	30
19	28			137	30
20	24			142	32
21	-				
22	45				
23	43				
25	33	35	34		
33	29				
34	39				
37	20				
40	-	-			
44	36.9				
50	23				
53	29				
54	27				
55	27	none	27		pt & separate
60	25				
65	29				
69	17				
70	23				
71	22				
72	26				
75	23				
76	18				
79	22	21	22		
80	28				
82	-				
85	30				
86	36				
87					patch cut
90	-				
92	26				
95	22				
104	25	24	25		
105	-	-			
106	-	-			

Anne Arundel
'78

P.1

Prince George Co
'78

(columns
columns 1-4)

columns
1-4

	Plant Code	Bird Code	Codes Diff	Plant	Bird
→	A010	A710		P003	P803
→	A011	A711	→	P004	P004
	A013	A013		P006	P906
	A014	A714	→	P007	P007
	A015	A015		P008	P008
→	A016	A716		P009	P009
→	A019	A719		P011	P011
→	A020	A720		P012	P012
→	A021	A721		P013	P713
	A027	A027	→	P015	P015
	A030	A030		P019	P019
	A033	A033		P020	P020
	A034	A034		P021	P021
	A038	A038		P022	P022
	A040	A040		P023	P023
→	A043	A843		P025	P725
	A044	A044	→	P033	P033
→	A045	A745		P034	P034
→	A046	A746		P039	P039
	A048	A048		P040	P740
	A050	A050	→	P044	P044
	A064	A064		P050	P050
	A069	A069		P053	P053
	A071	A071		P054	P054
	A072	A072		P059	P759
	A073	A073	→	P060	P060
	A080	A780		P065	P065
	A084	A084		P070	P070
	A085	A085		P071	P071
→	A086	A786		P072	P072
→	A087	A787		P075	P075
→	A088	A788		P076	P076
→	A091	A791		P079	P079 P879
	A093	A093	→	P080	P080
			→	P082	P882
				P085	P085
				P086	P086
				P087	

PG '78 cont P.2 Charles Co 78

Codes Diff	Plant	Bird	Codes Diff.	Plant	Bird
	P090			C001	C001
→	P090	P090 P790		C002	C002
	P092	P092		C007	C007
	P095	P095	→	C008	C708
→	P104	P504		C010	C010
→	P105	P405	→	C011	C811
→	P106	P406	→	C013	C913
	P069	P069		C014	C014
			→	C015	C715
			→	C017	C717
			→	C018	C718
				C019	C019
			→	C020	C720
				C021	C021
				C022	C022
				C027	C027
				C028	C028
				C029	C029
				C031	C031
				C032	C032
				C035	C035
				C037	C037
				C045	C045
				C046	C046
			→	C047	C747
			→	C048	C948
			→	C049	C849
			→	C050	C850
				C055	C055
				C056	C056
				C040	C040
			→	C041	C741

Queen Anne
179

P.3

Kent Co
179

Codes Diff.	Plant	Bird	Codes Diff.	Plant	Bird
	Q002	Q002		K001	K001
	Q006	Q006		K002	K002
	Q007	Q007		K005	K005
	Q009	Q009		K006	K006
	Q010	Q010	→	K015	K715
	Q011	Q011		K016	K016
	Q013	Q013		K018	K018
	Q014	Q014		K020	K020
	Q015	Q015		K025	K025
	Q016	Q016	→	K026	K726
	Q018	Q018		K027	K027
	Q020	Q020		K034	K034
	Q021	Q021		K035	K035
	Q022	Q022		K036	K036
	Q0 28 ²⁸	Q028		K038	K038
	Q031	Q031		K039	K039
	Q033	Q033		K040	K040
	Q034	Q034		K042	K042
	Q035	Q035		K043	K043
	Q036	Q036		K044	K044
	Q040	Q040		K046	K046
	Q042	Q042		K047	K047
	Q045	Q045			
	Q047	Q047			
	Q049	Q049			
→	Q050	Q 050 ⁷⁵⁰			
→	Q052	Q752			
	Q053	Q053			
	Q057	Q057			
	Q068	Q068			
	Q074	Q074			
	Q076	Q076			

Talbot 79

P. 4

Codes Diff	Plant	Bird
	T002	Y002
	T004	T004
→	T005	T005 T705
	T012	T012
	T013	T013
	T016	T016
	T018	T018
→	T021	T021 T721
→	T025	T025 T825
	T026	T026
→	T028	T028 T728
	T031	T031
→	T033	T033 T733
	T034	T034
	T036	T036
	T039	T039
→	T048	T048 T748
→	T049	T049 T749
	T060	T060
	T061	T061
	T061	

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date (Julian) 3/4/5 Yr. 6/7 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Wind 22 Plot No. A11a Visit No. 29 Area (ha) 200 Isolation 35/36 Border Type 37/38/39/40
 SHEET 1 OF 3

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
REVI					18+14+13 45 15 18	6+5+6 17 5.7 6	1+0+0 1 0 1	0	7+5+6 18 6 7	4+4+4 12 4 4	0	2+0+0 2 0 2
REVI					5+2+2 9 3 5	2+1+1 4 1.3 2	0		2+1+1 4 1.3 2	4+2+2 8 2.7 4	0	0
EAPE					3+0+4 7 2.3 4	2+0+1 3 1 2	0		2+0+1 3 1 2	2+0+4 6 2 4	0	0
Black burnian BLWA (migrant)					0	0	0		0	0	0	0
COFL					1+3+0 4 1.3 3	0	1+1+0 2 0.7 1		1+1+0 2 0.7 1	1+3+0 4 1.3 3	0	0
ACFL					3+0+3 6 2 3	2+0+1 3 1 2	0+0+1 1 0.3 1		2+0+2 4 1.3 2	3+0+3 6 2 3	0	0
NOCA					4+4+8 16 8 8	1+1+3 5 1.7 3	2+1+1 4 1.3 2		3+2+4 9 3 4	4+2+4 10 3.3 4	0+0+1 1 0.3 1	0
C SATA					5+2+3 10 3.3 5	2+1+1 4 1.3 2	0		2+1+1 4 1.3 2	4+2+3 9 3 4	0	0
HOWA					1+8+4 13 4.3 8	1+3+2 6 2 3	0		1+3+2 6 2 3	3+4+4 11 3.3 4	0	0
OVEN					1+0+5 6 2 5	1+0+2 3 1 2	0		1+0+2 3 1 2	1+0+4 5 1.7 4	0	0
WEVI					2+3+3 8 2.7 3	1+1+2 4 1.3 2	0		1+1+2 4 1.3 2	1+3+3 7 2.3 3	0	0

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date (Julian) 3/4/5 Yr. 6/7 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2
 Wind 22 Plot No. A11a Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40
SHEET 2 OF 3

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
TUTI					1+3+6 10 3.3 6	1+1+2 4 1.3 2	0+0+1 1 .3 1	0	1+1+3 5 1.7 3	1+3+3 7 2.3 3	0	0
<u>YBCH</u> of <u>11</u>					1+3+1 5 1.7 3	1+1+1 3 1 1	0		1+1+1 3 1 1	1+3+1 5 1.7 3		
BLJA					1+0+0 1 .3 1	0	1+0+0 1 .3 1		1+0+0 1 .3 1	1+0+0 1 .3 1		
BGGN					4+0+0 4 1.3 4	0	1+0+0 1 .3 1		1+0+0 1 .3 1	1+0+0 1 .3 1		
DOWO					0+3+3 6 2 3	0	0+2+1 3 1 2		0+2+1 3 1 2	0+3+3 6 2 3		
CACH					0+4+0 4 1.3 4	0	0+2+0 2 .7 2		0+2+0 2 .7 2	0+4+0 4 1.3 4		
KEWA					0+2+0 2 .7 2	0+1+0 1 .3 1	0		0+1+0 1 .3 1	0+2+0 2 .7 2		
RTHA					0+1+0 1 .3 1	0	0+1+0 1 .3 1		0+1+0 1 .3 1	0+1+0 1 .3 1		
YTUI					0+1+0 1 .3 1	0+1+0 1 .3 1	0		0+1+0 1 .3 1	0+1+0 1 .3 1		
CAWR					0+0+2 2 .7 2	0+0+1 1 .3 1	0		0+0+1 1 .3 1	0+0+2 2 .7 2		
RSTO					0+0+4 4 1.3 4	0+0+1 1 .3 1	0		0+0+1 1 .3 1	0+0+4 4 1.3 4		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date ⁶¹² (Julian) 3/4/5 Yr. 78 Time 06 07 to 06 27 Temp. ⁶³ (°C.) 16/17 Cloud cover 20

Wind 1 Plot Alla Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults < 50'
	1	2	3	4								
REVI	+ + +	+ ⊙ +	+ ⊙ +	+ +	18	6	1		7	4		2
WOTH	+ +	+ +			5	2			2	4		
EAPE	+ +	+ +			3	2			2	2		
* BLWA	+ +				* migrant							
COFL	-				1		1		1	1		
ACFL	+ +		+ +	+ +	3	2			2	3		
NOCA	- +	+ +	- -	- -	4	1	2		3	4		
SATA	- +	+ +		- +	5	2			2	4		
HOWA	+ +		+ +	+ +	1	1			1	3		
OVEN		+ +			1	1			1	1		
WEVI			+ +	+ +	2	1			1	1		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 page 1

Observer's MAH Date 6/23 Yr. 78 Time 1002 to 1022 Temp. 25 Cloud 0
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 ($^{\circ}$ C.) 16/17 cover 20

Wind 2 Plot Alla Visit 2 Area Isolation Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 35/36 Type 37/38/39/40

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults < 50'
	1	2	3	4								
DO NO	-	-	-		3		2		2	3		
NO CA	x	x			4	1	1		2	2		
RE VI	x x x	x x x	x x x x	x xx	14	5			5	4		
TH TI	x	x	x		3	1			1	3		
SA TA	x	x			2	1			1	2		
HO WA	x x	x x	x	x x x	8	3			3	4		
CO FL	-	-	-		3		1		1	3		
WE VJ	x	x		x	3	1			1	3		
CACH	-	-	-	-	4		2		2	4		
YB CB		x	x	x	3	1			1	3		
HE VA			x	x	2	1			1	2		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

page 1

Observer's initials MH Date 7/8 Yr. 78 Time 0643 to 0703 Temp. 72 Cloud 0
1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover 20

Wind 1 Plot A11a Visit 3 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

SP. CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
REVI	x x	x x	x xx	xx x	13	6			6	4		
OVEN	x	x x	x	x	5	2			2	4		
ACPL	x	-	-		3	1	1		2	3		
HOWA	x	x	x	x	4	2			2	4		
CAWR	x	x			2	1			1	2		
NOCB	x	-	x	+ x	8	3	1		4	4	1	
RSTD	x	x	-	-	4	1			1	4		
WEVI	x	x	x		3	2			2	3		
RBWD	-			-	2		1		1	2		
EAPE	x	x	x	x	4	1			1	4		
AMLR	-	-	-	-	4		2		2	4		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

INDICATE # OF SHEETS! NOTE

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 78 Time (start) 8/9/10/11 to Sheet #1 of 3 Temp. (°C.) 16/17 Cloud cover 2

Wind 22 Plot A11B Visit No. 29 Area (ha) 200 Isolation 35/36 Border Type 37/38/39/40

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
RE VI					16-7-11 34 11.3 16	6-4-4 14 4.7 6	1-0-0 1 .3 1	0	7-4-4 15 5 7	4-4-4 12 4 4	0	1-0-0 1 .3 1
NO CA					9-6-7 22 7.3 9	2-3-3 8 2.7 3	1-0-0 1 .3 1		3-3-3 9 3 3	4-4-4 12 4 4		0-1-0 1 .3 1
RB WO					5-1-5 11 3.7 5	0	4-1-2 7 2.3 4		4-1-2 7 2.3 4	3-1-4 8 2.7 4		0
AC FL					12-2-3 17 5.7 12	4-1-1 6 2 4	0		4-1-1 6 4	4-2-3 9 4		0
TU TI					3-5-4 12 4 5	2-3-2 7 2.3 3	0		2-3-2 7 2.3 3	2-4-4 10 3.3 4		0
WO TH					4-8-6 18 6 8	2-3-3 8 2.7 3	0		2-3-3 8 2.7 3	3-4-4 11 3.7 4		0
EA PE					5-1-5 11 3.7 5	2-1-2 5 1.7 2	0		2-1-2 5 1.7 2	4-1-4 9 3 4		0
HO WA					8-1-6 15 5 8	3-1-2 6 2 3	0		3-1-2 6 2 3	4-1-4 9 3 4		0
AM CR					6-5-6 17 5.7 6	0	3-3-3 9 3 3		3-3-3 9 3 3	4-4-4 12 4 4		0
CO BO					1-0-0 1 .3 1	1-0-0 1 .3 1	0		1-0-0 1 .3 1	1-0-0 1 .3 1		0
RE WA					5-5-2 12 4 5	3-2-1 6 2 3	0		3-2-1 6 2 3	3-4-2 9 3 4		0

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 6/7 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2
 Kind 22 Plot No. 26/27/28 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40
Sheet # 2 of 3

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
CO GR					4-0-0 4 1.3 4	0	0	4-0-2 6 2 4	4-0-2 6 2 4	4-0-0 4 1.3 4	0	0
CA CH					1-0-0 1 .3 1	0	1-0-0 1 .3 1	0	1-0-0 1 .3 1	1-0-0 1 .3 1		
JA TA					3-0-3 6 2 3	1-0-1 2 .7 1	0	0	1-0-1 2 .7 1	3-0-3 6 2 3		
RW BAV					0	0	0	1-0-0 1 .3 1	1-0-0 1 .3 1			
BL JA					2-0-0 2 .7 2	0	2-0-0 2 .7 2	0	2-0-0 2 .7 2	1-0-0 1 .3 1		
BA CO					1-0-0 1 .3 1	0	1-0-0 1 .3 1	0	1-0-0 1 .3 1	1-0-0 1 .3 1		
OV EN					0-7-0 7 2.3 7	0-3-0 3 1 3	0	0	0-3-0 3 1 3	0-4-0 4 1.3 4		
RS TO					0-2-0 2 .7 2	0-1-0 1 .3 1	0	0	0-1-0 1 .3 1	0-2-0 2 .7 2		
WE VI					0-2-4 6 2 4	0-1-1 2 .7 1	0	0	0-1-1 2 .7 1	0-2-4 6 2 4		
YB CU					0-0-3 3 1 3	0-0-1 1 .3 1	0	0	0-0-1 1 .3 1	0-0-3 3 1 3		
DO WO					0-0-1 1 .3 1	0	0-0-1 1 .3 1	0	0-0-1 1 .3 1	0-0-1 1 .3 1		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MJ Date 4/2 Yr. 78 Time 0715 to 0735 Temp. 68
 initials 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (⁰C.) 16/17 Cloud 0
 cover 20

Wind 0 Plot A116 Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
REVI	+ ++ +	+ +	+ +	+ +	16	6	1		7	4		1
NOCA	- +	- +	- +	- +	9	2	1		3	4		
RBWO	- -	- -	- -	- -	5		4		4	3		
ACFL	+ +	+ +	+ +	+ +	12	4			4	4		
TUTI	- +	- +	- +	- +	3	2			2	2		
WOTH	+ +	+ +	+ +	+ +	4	2			2	3		
EAPE	- +	- +	- +	- +	5	2			2	4		
HOWA	+ +	+ +	+ +	+ +	8	3	4		3	4		
AMCR	- -	- -	- -	- -	6		3		3	4		
COBO	+ -	+ -	+ -	+ -	1	1			1	1		
HEWA	- +	- +	- +	- +	5	3			3	3		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

page 1

Observer's initials MH Date 6/23 (Julian) 3/4/5 Yr. 78 Time 0925 to 0945 Temp. 25 (°C.) 16/17 Cloud cover 20

Band 0 Plot A11D Visit 2 Area 30/31/32 Isolation 35/36 Border Type 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
HO WA	x				1	1			1	1		
OV/ EN	x	x	x	x	7	3			3	4		
VO CA	x	x	x	x	6	3			3	4		1
RB/ WD					1		1		1	1		
WB TH	x	x	x	x	8	3			3	4		
RE/ WJ	x	x	x	x	7	4			4	4		
TH/ TI		x	x	x	5	3			3	4		
HE/ WP	x	x	x	x	5	2			2	4		
AM/ CA	-	-	-	-	5		3		3	4		
EA/ PE		⊙			1	1			1	1		1
RS TD		x	x		2	1			1	2		

X=singing male; --non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

pass

Observer's initials MH Date 7/8 Yr. 79 Time 0605 to 0625 Temp. 70 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (⁰C.) 16/17 cover 20

End 0 Plot A116 Visit 3 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

P. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
RBWD	-	-	-	-	5		2		2	4		
TATE	x	x	x	x	4	2			2	4		
HAWA	x	x	x	x	6	2			2	4		
NOLA	x	x	x	x	7	3			3	4		
WOTB	x	x	x	x	6	3			3	4		
EAPF	x	x	x	x	5	2			2	4		
WEVS	x	x	x	x	4	1			1	4		
REVI	x	x	x	x	11	4			4	4		
COGR	v			v				2	2			
AMCR	-	-	-	-	6	3			3	4		
YBCU	x	x		x	3	1			1	3		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Page 1 of 3

Observer's initials MK Date (Julian) 3/4/5 Yr. 6/7 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Wind 22 Plot No. A11c Visit No. 29 Area (ha) 200 Isolation 35/36 Border Type 37/38/39/40

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50
	1	2	3	4								
KEWA					6-5-0 11 3.7 6	2-1-0 3 1.0 2	0-1-0 1 0.3 1	0-0-0	2-2-0 4 1.3 2	4-4-0 8 2.7 4	0-0-0	0-1-0 1 0.3 1
WBNU					1-0-0 1 0.3 1	0-0-0	1-0-0 1 0.3 1	0-0-0	1-0-0 1 0.3 1	1-0-0 1 0.3 1	0-0-0	0-0-0
REVI					12-12-13 37 12.3 13	5-4-4 13 4.3 5	1-1-0 2 0.7 1	0-0-0	6-5-4 15 5.0 6	4-4-4 12 4.0 4	0-0-0	0-0-0
WEVI					2-3-3 8 2.7 3	2-1-2 5 1.7 2	0-0-0	0-0-0	2-1-2 5 1.7 2	2-3-2 7 2.3 3	0-0-0	1-0-0 1 0.3 1
AMGO					1-0-0 1 0.3 1	1-0-0 1 0.3 1	0-0-0	0-0-0	1-0-0 1 0.3 1	1-0-0 1 0.3 1	0-0-0	0-0-0
AMCR					3-1-11 15 5.0 11	0-0-0	3-1-4 8 2.7 4	1-0-0 1 0.3 1	4-1-4 9 3.0 4	2-1-4 7 2.3 4	0-0-0	0-0-0
SATA (SCTA)					5-0-0 5 1.7 5	2-0-0 2 0.7 2	0-0-0	0-0-0	2-0-0 2 0.7 2	4-0-0 4 1.3 4	0-0-0	0-0-0
HOWA					7-2-4 13 4.3 7	2-1-1 4 1.3 2	1-0-0 1 0.3 1	0-0-0	3-1-1 5 1.7 3	4-2-4 10 3.3 4	0-0-0	1-0-0 1 0.3 1
ACFL					7-2-7 16 5.3 7	1-1-2 4 1.3 2	1-0-0 1 0.3 1	0-0-0	2-1-2 5 1.7 2	4-2-4 10 3.3 4	0-0-0	0-0-0
BGGN					1-0-0 1 0.3 1	0-0-0	1-0-0 1 0.3 1	0-0-0	1-0-0 1 0.3 1	2-0-0 2 0.7 2	0-0-0	0-0-0
OVEN					4-1-0 5 1.7 4	2-1-0 3 1.0 2	0-0-0	0-0-0	2-1-0 3 1.0 2	2-1-0 3 1.0 2	0-0-0	0-0-0

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Page 2 of 3

Observer's initials MH Date (Julian) 3/4/5 Yr. 6/7 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Wind 22 Plot No. Alc 26/27/28 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
EAPE					5-1-3 9 3.0 5	2-1-1 4 3 2	0-0-0	0-0-0	2-1-1 4 1.3 2	4-1-3 8 2.7 4	0-0-0	0-0-0
RSTO					3-0-0 3 1.0 3	1-0-0 1 0.3 1	0-0-0	0-0-0	1-0-0 1 0.3 1	3-0-0 3 1.0 3	0-0-0	0-0-0
RBWO					5-5-1 11 3.7 5	0-0-0	3-2-1 6 2.0 3	0-0-0	3-2-1 6 2.0 3	4-4-1 9 3.0 4	0-0-0	0-0-0
NOCA					5-2-4 8 2.7 5	3-1-1 5 1.7 3	0-0-0	0-0-0	3-1-1 5 1.7 3	3-2-1 5 2.0 3	0-0-0	0-0-0
TUTI					4-5-6 15 5.0 6	2-5-3 10 3.3 5	1-2-0 3 1.0 2	0-0-0	3-2-3 8 2.7 3	3-4-4 11 3.7 4	0-0-0	0-1-0 1 0.3 1
BLJA					1-1-0 2 0.7 1	0-0-0	1-1-0 2 0.7 1	0-0-0	1-1-0 2 0.7 1	1-1-0 2 0.7 1	0-0-0	0-0-0
HAWO					1-1-0 2 0.7 1	0-0-0	1-1-0 2 0.7 1	0-0-0	1-1-0 2 0.7 1	1-1-0 2 0.7 1	0-0-0	0-0-0
WOTH					1-11-5 17 5.7 11	1-3-2 6 2.0 3	0-1-0 1 0.3 1	0-0-0	1-4-2 7 2.3 4	1-4-4 9 3.0 4	0-0-0	0-1-0 1 0.3 1
COFL					0-2-0 2 0.7 2	0-0-0	0-2-0 2 0.7 2	0-0-0	0-2-0 2 0.7 2	0-2-0 2 0.7 2	0-0-0	0-0-0
YBCU					0-0-1 1 0.3 1	0-0-1 1 0.3 1	0-0-0	0-0-0	0-0-1 1 0.3 1	0-0-1 1 0.3 1	0-0-0	0-0-0
COGR					0-0-0	0-0-0	0-0-0	0-0-2 2 0.7 2	0-0-2 2 0.7 2	0-0-0	0-0-0	0-0-0

X=singing male; --non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MH Date ⁶⁻² (Julian) 3/4/5 Yr. 78 Time 0807 to 0827 Temp. ⁷² (°C.) 16/17 Cloud 0
 initials 1/2 (start) 8/9/10/11 to 12/13/14/15 cover 20

Wind 1 Plot All Visit 1 Area Isolation Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults < 50'
	1	2	3	4								
HEWA	+ +	+ +	+ +	+ +	6	2			2	4		
WBWA	-				1		1		1	1		
REVI	- +	+ +	+ +	+ +	12	5	1		6	4		
WEVI	+ +			⊕	2	2			2	2		1
AMEO	+ +				1	1			1	1		
AMEK	- v			-	3		3	1	4	2		
SATA	+ +	+ +	+ +	+ +	5	2			2	4		
HOWA	+ +	+ +	+ ⊕	+ +	7	2	1		3	4		1
ACFL	+ -	+ -	+ -	+ -	7	1	1		2	4		
BGGV	- -	- -			1		1		1	2		
OVEN	+ +	+ +			4	2			2	2		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN .50 FEET)

page 1

Observer's initials MH Date 6/23 Yr. 78 Time 0851 to 0911 Temp. 25 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (°C.) 16/17 cover 20

Wind 0 Plot Allc Visit 2 Area Isolation Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

SP. ALPHA CODE	5-minute interval				49-50 \sum 5-min interv.	51-52 \sum sing. males	53-54 \sum non- sing. adults	55-56 \sum adult fly- overs	57-58 \sum all adults	59 F	60-61 \sum immat- ures	62-63 \sum adults <50'
	1	2	3	4								
WO TH	x x ⊙ y	x x x	x x	x x	11	3	1		4	4		1
CO FL	-	-			2		2		2	2		
EA PE	x				1	1			1	1		
RB WO	-	-	-	-	5		2		2	4		
RE VI	x x	x - x	x - x	x x x	12	4	1		5	4		
WE VI	x	x	x		3	1			1	3		
HE WA	x	⊙ x	x	x	5	1	1		2	4		1
TH TJ	x	x x	x	⊙	5	5	2		2	4		1
HO WA		x		x	2	1			1	2		
AC FL		x	x		2	1			1	2		
NO CA			x	x	2	1			1	2		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

page 1

Observer's initials MH Date 7/8 Yr. 78 Time 0534 to 0554 Temp. 69 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (°C.) 16/17 cover 20

Band 0 Plot Allc Visit 3 Area Isolation Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 35/36 Type 37/38/39/40

SP. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
REVI	X X X	X X X	X X X	X X X X	13	4			4	4		
ACPL	X ✓	X X	- X	✓	7	2			2	4		
AMLR	= =	=	- =	=	11	4			4	4		
WOTH	X	X	X	✓	5	2			2	4		
PTTI	X	X	X	X	6	3			3	4		
EAPF	X	X	X		3	1			1	3		
HOWA	X	X	X	X	4	1			1	4		
YBCU	X				1	1			1	1		
COGR		✓	✓				2	2				
NOCA			X		1	1			1	1		
WEV3			X	X	3	2			2	2		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET) sheet #1 of 23

Observer's Initials TA Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. ($^{\circ}$ C.) 16/17 Cloud cover 2

Plot No. A27 Visit No. 29 Area (ha) 23 Isolation 35/36 Border Type 37/38/39/40

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
HE WA					4-0-0 4 1.3 4	1-0-0 1 0.3 1	0	0	1-0-0 1 0.3 1	4-0-0 4 1.3 4	0	0
AC FL					8-9-9 25 8.3 9	2-3-2 7 2.3 3	1-0-0 1 0.3 1		3-3-2 8 2.7 3	4-4-4 12 4 4		
SC TA					5-4-1 10 3.3 5	1-1-1 3 1 1	1-0-0 1 0.3 1		2-1-1 4 1.3 2	4-4-1 7 2.3 4		
BL JA					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	2-0-0 2 0.7 2		
RB WD					2-4-4 10 3.3 4	1-1-2 4 1.3 2	0		1-1-2 4 1.3 2	2-4-3 9 3 4		
CA CH					1-1-2 4 1.3 2	0	1-1-1 3 1 1		1-1-1 3 1 1	1-1-2 4 1.3 2		
RE VI					8-15-14 37 12.3 15	3-4-4 11 3.7 4	0-2-0 2 0.7 2		3-6-4 13 4.3 6	4-4-4 12 4 4		
TH TI					4-4-4 12 4 4	1-1-1 3 1 1	0		1-1-1 3 1 1	4-4-4 12 4 4		
WO TH					6-8-12 26 8.7 12	1-2-3 6 2 3	1-1-1 3 1 1		2-3-4 9 3 4	4-4-4 12 4 4		
RS TO					3-0-0 3 1 3	2-0-0 2 0.7 2	0		2-0-0 2 0.7 2	2-0-0 2 0.7 2		
CO CR					8-0-0 8 2.7 8	0	4-0-0 4 1.3 4		4-0-0 4 1.3 4	4-0-0 4 1.3 4		

X=singing male; --=non-singing ad.; +=immat re; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Sheet # 2 of 3

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Band 22 Plot No. A27 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

P. PHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
HO WA					4-3-2 9 3 4	1-2-1 4 1.3 2	0	0	1-2-1 4 1.3 2	4-3-2 9 3 4	0	0
OV EN					5-5-9 19 6.3 9	2-2-3 7 2.3 3	0	0	2-2-3 7 2.3 3	3-4-4 11 3.7 4		
CA RO					2-5-6 13 4.3 6	0-2-2 4 1.3 2	1-0-0 1 0.3 1	0	1-2-2 5 1.7 2	2-4-4 10 3.3 4		
FI CR					0	0	0	1-0-0 1 0.3 1	1-0-0 1 0.3 1	0		
PI WO					1-0-0 1 0.3 1	1-0-0 1 0.3 1		0	1-0-0 1 0.3 1	1-0-0 1 0.3 1		
CA WR					0-1-2 3 1 2	0-1-1 2 0.7 1			0-1-1 2 0.7 1	0-1-2 3 1 2		
EW FE					0-3-0 3 1 3	0-1-0 1 0.3 1			0-1-0 1 0.3 1	0-3-0 3 1 3		
YB CU					0-1-2 3 1 2	0-1-1 2 0.7 1			0-1-1 2 0.7 1	0-1-2 3 1 2		
NO PA					0-1-1 2 0.7 1	0-1-1 2 0.7 1			0-1-1 2 0.7 1	0-1-1 2 0.7 1		
MO DO					0-0-2 2 0.7 2	0-0-1 1 0.3 1			0-0-1 1 0.3 1	0-0-2 2 0.7 2		
GC FL					0-0-2 2 0.7 2	0-0-1 1 0.3 1			0-0-1 1 0.3 1	0-0-2 2 0.7 2		

MA

BIRDERS

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE #1 of 2

Observer's Initials TA Date (Julian) 149 Yr. 79 Time (start) 0643 to 0703 Temp. (°C.) 53 Cloud cover 2
1/2 (Julian) 3/4/5 6/7 12/13/14/15 16/17

Band 1 Plot No. A27 Visit No. 1 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40
22 26/27/28 29

PHASE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	\sum 5-min interv.	\sum sing. males	\sum non-sing. adults	\sum adult fly-overs	\sum all adults	F	\sum immatures	\sum adults < 50
KEWA	x	x	x	x	4	1			1	4		
ACFL	x	x	x	x	8	2	1		3	4		
SETA	x	x	x		5	1	1		2	4		
BLTA	-		-		2	1	1		1	2		
RENO	x	x			2	1			1	2		
CACH	-				1		1		1	1		
REUJ	x	x	x	x	8	3			3	4		
TUTI	x		x	x	4	1			1	4		
WOTH	x	x			6	1	1		2	4		
RSTO	x	xx			3	2			2	2		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE #2

Observer's Initials TA Date 149 Yr. 79 Time 0643 to 0703 Temp. 53 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (^{°C.}) 16/17 cover 2

Band 1 Plot A 27 Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha)

PHASIDAE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
COOCR	-	-	-	-	8		4		4	4		
HONA	x	x	x	x	4	1			1	4		
SOSP	<u>outside</u> x	x	x	x	☆1	1			1	1		
OVEN		x	+	x	5	2			2	3		
MOKX		<u>outside</u> x		x	☆3	1			1	3		
INBU		<u>outside</u> x		x	☆3	1			1	3		
CARD		...		-	2		1		1	2		
FICR			V		☆			1	1			
PIWO				x	1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE 1 of 2

Observer's TA Date 163 Yr. 79 Time 0715 to 0735 Temp. 51 Cloud 0
 initials. 1/2 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover

Plot A 27 Visit 2 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 26/27/28 No. 29 (ha)

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
WOTH	x		x	-x	8	2	1		3	4		
REV	x	x	x	x	15	4	2		6	4		
ACFL	x	x		x	9	3			3	4		
HOWA		x	x		3	2			2	3		
SETA	x	x	x	x	4	1			1	4		
CAUR	x				1	1			1	1		
CARD		x	x	x	5	2			2	4		
WBU	out	x	x	x	☆ ₃	1			1	3		
FWPE				x	3	1			1	3		
TUTI		x	x	x	4	1			1	4		
OVEN	x	x	x	x	5	2			2	4		

X=singing males; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE 1 of 2

Observer's Initials TA Date 176 Yr. 79 Time 0530 to 0550 Temp. 45 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (^oC.) 16/17 cover

Band 1 Plot A27 Visit 3 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha)

PHASID	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing. adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
REVI	x	x	x	x	14	4			4	4		
WOTH	x	x	x	x	12	3	1		4	4		
CACH					2		1		1	2		
ACFL	x	x	x	x	8	2			2	4		
OVEN	x	x	x	x	9	3			3	4		
CARD	x	x	x	x	6	2			2	4		
RBWO	x	x		x	4	2			2	3		
TUTI	x	x	x	x	4	1			1	4		
YBCU	x		x		2	1			1	2		
INBU	out	x	x	x	☆							
COCK	out				☆							

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE 2

Observer's TA Date 176 Yr. 79 Time 0530 to 0550 Temp. 45 Cloud 0
 initials 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover

Plot A27 Visit 3 Area Isolation Border
 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

Species	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adults < 50
MOBO	x	x			2	1			1	2		
SCTA					1	1			1	1		
RSTO		out x	x	x	☆							
NOVA				x	1	1			1	1		
CAWR			x	x	2	1			1	2		
GCFL				x	2	1			1	2		
HAWA			x	x	2	1			1	2		
ASHA				v out	☆							

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 Sheet # 1 of 23

Observer's Initials TA Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Plot No. A30 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
WO TH					5-1-2 8 2.7 5	1-1-1 3 1 1	1-0-0 1 0.3 1	0	2-1-1 4 1.3 2	4-1-2 7 2.3 4	0	0
SC TA					4-1-1 5 1.7 4	1-1-1 3 1 1	0		1-1-1 3 1 1	4-1-1 6 2 4		0
AC FL					7-9-7 23 7.7 9	2-3-3 8 2.7 3	0		2-3-3 8 2.7 3	4-4-4 12 4 4		0-1-0 1 0.3 1
RE VI					6-6-11 23 7.7 11	2-2-4 8 2.7 4	1-0-0 1 0.3 1		3-2-4 9 3 4	3-4-4 11 3.7 4		0
TY TI					7-5-1 13 4.3 7	2-2-1 5 1.7 2	0		2-2-1 5 1.7 2	4-4-1 9 3 4		
OV EN					6-5-7 18 6 7	2-2-3 7 2.3 3	0		2-2-3 7 2.3 3	4-4-4 12 4 4		
HO WA					2-7-4 13 4.3 7	0-2-2 4 1.3 2	1-0-0 1 0.3 1		1-2-2 5 1.7 2	2-4-3 14 4.7 4		
CO CR					4-6-2 12 4 6	0	3-4-1 8 2.7 4		3-4-1 8 2.7 4	3-3-2 8 2.7 3		
RB WO					3-3-0 6 2 3	1-1-0 2 0.7 1	0		1-1-0 2 0.7 1	3-3-0 6 2 3		
EW PE					3-0-0 3 1 3	1-0-0 1 0.3 1	0		1-0-0 1 0.3 1	3-0-0 3 1 3		
HA WO					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	2-0-0 2 0.7 2		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 2 of 23

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Plot No. A30 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

SHAPE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
CA RD					2-8-3 13 4.3 8	1-2-1 4 1.3 2	0	0	1-2-1 4 1.3 2	2-4-3 9 3 4	0	0
AM RD					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	2-0-0 2 0.7 2		
RS TO					0-3-4 7 2.3 4	0-1-1 2 0.7 1	0		0-1-1 2 0.7 1	0-3-4 7 2.3 4		
YB CY					0-1-3 4 1.3 3	0-1-1 2 0.7 1	0		0-1-1 2 0.7 1	0-1-3 4 1.3 3		
GR CA					0-1-0 1 0.3 1	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-1-0 1 0.3 1		
LO WA					0-3-0 3 1 3	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-3-0 3 1 3		0-1-0 1 0.3 1
DH CO					0-0-1 1 0.3 1	0	0-0-1 1 0.3 1		0-0-1 1 0.3 1	0-0-1 1 0.3 1	0-1-0 1 0.3 1	0
WE VI					0-0-6 6 2 6	0-0-2 2 0.7 2	0		0-0-2 2 0.7 2	0-0-4 4 1.3 4	0	
PH MA					0	0	0	0-0-1 1 0.3 1	0-0-1 1 0.3 1	0	0	
DO WD					0-0-1 1 0.3 1	0-0-1 1 0.3 1	0	0	0-0-1 1 0.3 1	0-0-1 1 0.3 1	0	
MO CY					1-0-0 1 0.3 1	1-0-0 1 0.3 1	0	0	1-0-0 1 0.3 1	1-0-0 1 0.3 1	0	0

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE #1 of 2

Observer's Initials JA Date 149 Yr. 79 Time 0725 to 0745 Temp. 54 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (°C.) 16/17 cover 2

and 1 Plot A30 Visit 1 Area Isola- Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40
 Occasion sprinkles

P. PHA DE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
WOTA	x	x	x	x	5	1	1		2	4		
CTA	x	x	x	x	4	1			1	4		
ACFL	x	x	x	x	7	2			2	4		
REVI	x	x	x	x	6	2	1		3	3		
TUTI	x	x	x	x	7	2			2	4		
OVEN	x	x	x	x	6	2			2	4		
MIWA	x	x	x	x	2		1		1	2		
COER	x	x	x	x	4		3		3	3		
PBLU	x	x	x	x	3	1			1	3		
EWTE	x	x	x	x	3	1			1	3		
MOCK		x outside			☆							

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE #2

Observer's initials TA Date 149 Yr. 79 Time 0725 to 0745 Temp. 54 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (^{°C.}) 16/17 cover 2
 Plot No. A30 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40
1/22

P.H.A. DE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
TRBU		X outside	X	X	☆							
HAWO					2		1		1	2		
PRWA		X outside	X		☆							
ROWY			edge X	X	☆							
CARD			X	X	2	1			1	2		
AMPO			-	-	2		1		1	2		
COYE			outside X	X	☆							
YBEX				outside X	☆							
				X		LOWA						

* RSHA, 2 CACH, BGGW, 1 heard after count period

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE 1 of 2

Observer's TA Date 163 Yr. 79 Time 0635 to 0655 Temp. 48 Cloud 0
 initials. 1/2 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover

Plot A30 Visit 2 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 26/27/28 No. 29 (ha)

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
HOWA	x	x	x	x	7	2			2	4		
TUTI		x	x	x	5	2			2	4		
REVI	x	x	x	x	6	2			2	4		
OVEN	x	x	x	x	5	2			2	4		
ACFL	x	x	x	x	9	3			3	4		1
RBWD		x	x	x	3	1			1	3		
PRVA	OUT	x	x	x	3	1			1	3		
RSTO		x	x	x	3	1			1	3		
COCR	-	-	=	=	6	4			4	3		
CARD		x	x	x	8	2			2	4		
YBCU			x		1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE 2

Observer's TA Date 163 Yr. 79 Time 0635 to 0655 Temp. 48 Cloud 0
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (^oC.) 16/17 cover

Plot A30 Visit 2 Area Isola- Border
 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
GRCA		-										
WOTH			x									
COYE		out	x	x	☆							
LOWA		-	⊖	⊖	3					3		
YBCH			x	out x	☆							
RSNA			out	x x	☆							
BOWH			out	x	☆							
SCTA					+							
INBU				out x	☆							
BHCO				feed by ACFL	+		0	0	0	0	?	

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE 1 of 2

Observer's Initials TA Date 176 Yr. 79 Time (start) 0605 to 0625 Temp. ($^{\circ}$ C.) 46 Cloud cover 0
 (Julian) 3/4/5 (6/7) (2/9/10/11) (12/13/14/15) (16/17)
 Plot No. 0 Visit No. 3 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40
22 26/27/28 29

SPECIES	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min intervals	Σ sing. males	Σ non-sing. adults	Σ adult flyovers	Σ all adults	F	Σ immatures	Σ adults < 50
HOWA	x	x			4	2			2	3		
REUI	x	x	x	x	11	4			4	4		
ACFL	x	x	x	x	7	3			3	4		
WEUI		x		x	6	2			2	4		
RSTO	x	x	x	x	4	1			1	4		
YBCU		x	x		3	1			1	3		
OVEN	x	x	x	x	7	3			3	4		
CARD					3	1			1	3		
BOBW	x	x	x	x	*							
COCP	v				*							
RSHA	v	v	v	v	*							

X=singing male; --non-singing ad.; +immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE 2

Observer's TA Date 176 Yr. 79 Time 0605 to 0625 Temp. 46 Cloud 0
 initials. 1/2 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover

id 0 Plot A30 Visit 3 Area Isola- Border
 22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

HA	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
COGR		-	-		2		1		1	2		
WBU		out	x		x	*						
SCTA		x			1	1			1	1		
YBCH		out	x	x	x	*						
COYE		out	x	x		*						
PUMA				v				1	1			
BHCO				1	1				1	1		
WOTH			x	x	2	1			1	2		
DONO					x	1	1		1	1		
TUTI				x		1	1		1	1		

* CACH singing in patch after count period

X=singing males; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 1 of 3

Observer's Initials TA Date B/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2
 Plot No. A33 Visit No. 29 Area (ha) 13 Isolation 35/36 Border Type 37/38/39/40

Observer	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
PI WA					4-0-0 4 1.3 4	1-0-0 1 0.3 1	0	0	1-0-0 1 0.3 1	4-0-0 4 1.3 4	0	0
RE VI					10-8-12 30 10 12	3-2-3 8 2.7 3	0		3-2-3 8 2.7 3	4-4-4 12 4 4		0
OV EN					10-10-9 29 9.7 10	3-3-3 9 3 3	0		3-3-3 9 3 3	4-4-4 12 4 4		0-0-1 1 0.3 1
WD TH					10-14-11 40 13.3 16	2-4-4 10 3.3 4	1-0-1 2 0.7 1		3-4-5 12 4 5	4-4-4 12 4 4		0
GC FL					3-2-0 5 1.7 3	1-1-0 2 0.7 1	0		1-1-0 2 0.7 1	3-2-0 5 1.7 3		0
AC FL					8-10-9 27 9 10	2-4-3 9 3 4	0		2-4-3 9 3 4	4-4-4 12 4 4		0
HA WD					3-3-4 10 3.3 4	0-1-1 2 0.7 1	1-0-0 1 0.3 1		1-1-1 3 1 1	3-3-4 10 3.3 4		0-1-0 1 0.3 1
BL JA					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	2-0-0 2 0.7 2		0
CO CR					5-1-0 6 2 5	0	2-1-0 3 1 2		2-1-0 3 1 2	4-1-0 5 1.7 4		0
SC TA					4-0-3 7 2.3 4	2-0-1 3 1 2	0		2-0-1 3 1 2	3-0-3 6 2 3		0
EW PE					4-0-2 6 2 4	1-0-1 2 0.7 1	0		1-0-1 2 0.7 1	4-0-2 6 2 4		0

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet #2 of 3

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Plot A33 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

Observer	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	\sum 5-min interv.	\sum sing. males	\sum non-sing. adults	\sum adult flyovers	\sum all adults	F	\sum immatures	\sum adults <50'
TH TI					4-5-1 10 3.3 5	2-2-1 5 1.7 2	0	0	2-2-1 5 1.7 2	3-4-1 8 2.7 4	0	0
RB WO					4-0-1 5 1.7 4	1-0-1 2 0.7 1	0		1-0-1 2 0.7 1	4-0-1 5 1.7 4		
HO WA					1-0-0 1 0.3 1	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	1-0-0 1 0.3 1		
DO WO					1-0-2 3 1 2	1-0-1 2 0.7 1	0		1-0-1 2 0.7 1	1-0-2 3 1 2		
NO PA					1-0-0 1 0.3 1	1-0-0 1 0.3 1			1-0-0 1 0.3 1	1-0-0 1 0.3 1		
LO WA					0-1-0 1 0.3 1	0-1-0 1 0.3 1			0-1-0 1 0.3 1	0-1-0 1 0.3 1		
RT HY					0-2-0 2 0.7 2	0-1-0 1 0.3 1			0-1-0 1 0.3 1	0-2-0 2 0.7 2		0-1-0 1 0.3 1
AM RO					0-2-0 2 0.7 2	0-1-0 1 0.3 1			0-1-0 1 0.3 1	0-2-0 2 0.7 2		0
HE WA					0-1-0 1 0.3 1	0-1-0 1 0.3 1			0-1-0 1 0.3 1	0-1-0 1 0.3 1		
CA CH					0-1-0 1 0.3 1	0-1-0 1 0.3 1			0-1-0 1 0.3 1	0-1-0 1 0.3 1		
KB CY					0-0-2 2 0.7 2	0-0-1 1 0.3 1			0-0-1 1 0.3 1	0-0-2 2 0.7 2		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE #1 of 2

Observer's initials TA Date 149 Yr. 79 Time 0810 to 0930 Temp. 56 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (⁰C.) 16/17 cover 2

Plot A33 Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha)

PHALLODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
P.WA	X	X	Y	X	4	1			1	4		
REV	X	X	X	X	10	3			3	4		
OVEN	X	X	X	X	10	3			3	4		
WITH	X	X	X	X	10	2	1		3	4		
SCFZ	X	X	X		3	1			1	3		
ACRZ	X	X	X	X	8	2			2	4		
HAWO	-	-	-		3		1		1	3		
BLJA	-	-	-		2		1		1	2		
COCR	-	-	-		5		2		2	4		
SCTA	X		Y	X	4	2			2	3		
EMPE	X	X	X	X	4	1			1	4		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE #2

Observer's initials TA Date 149 Yr. 79 Time 0810 to 0830 Temp. 56 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (⁰C.) 16/17 cover 2

Plot No. 1 22 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40
 Visit No. 1 29

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adults <50'
MOCK	x	x	x	x		*						
TUTI	x	x	x	x	4	2			2	3		
POWA	x	x	x	x	4	1			1	4		
HOWA					1		1		1	1		
OWWO			x		1	1			1	1		
NOFA			x		1	1			1	1		
	* Active REVI nest in Fagus on 35-40 coll above ground 25 meters N. of central tree											

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE 1 of 2

Observer's TA Date 163 Yr. 79 Time 0608 to 0628 Temp. 48 Cloud 0
 initials 1/2 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover
 rd 1 Plot A 33 Visit 2 Area 30/31/32 Isola- Border
 No. 22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40
 too much Truck noise

SPECIES	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	\sum 5-min interv.	\sum sing. males	\sum non- sing. adults	\sum adult fly- overs	\sum all adults	F	\sum immat- ures	\sum adult <50
OVEN	x x	x x	x x	x	10	3			3	4		
ACFL	x	x	x	x	10	4			4	4		
WOTH	x	x	x	x	14	4			4	4		
TUTI	x	x	x	x	5	2			2	4		
REVI	x	x	x	x	8	2			2	4		
LOWA	x				1	1			1	1		
RTHU	⊕	x			2	1			1	2		1
AMRO	-			x	2	1			1	2		
SCFL			x	x	2	1			1	2		
HAWO			x	⊗	3	1			1	3		1
KEWA		x			1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE 1 of 2

Observer's TA Date 176 Yr. 79 Time 0635 to 0655 Temp. 47 Cloud 0
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover

Plot A33 Visit 3 Area Isolation Border
 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40
 Construction noise during most of count period

Species	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing. adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
REVI	x	x	x	x	x	12	3		3	4		
ACFL	x	x	x	x	x	9	3		3	4		
OVEN	x	x	x	x	x	9	3		3	4		1
WOTH	x	x	x	x	x	16	4	1	5	4		
HAWO		x	x	x	x	4	1		1	4		
TUTI	x					1	1		1	1		
YBCU		x		x		2	1		1	2		
DAWO	x		x			2	1		1	2		
SCTA			x	x	x	3	1		1	3		
COCR		out				☆						
EWPE			x	x		2	1		1	2		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET) sheet #1 of 2

Observer's Initials TA Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2
 Plot No. A34p Visit No. 29 Area (ha) 18 Isolation 35/36 Border Type 37/38/39/40

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
EW PE					4-2-2 9 2.7 4	1-1-1 3 1 1	0	0	1-1-1 3 1 1	4-2-2 8 2.7 4	0	0
AC FL					9-8-10 27 9 10	3-2-3 8 2.7 3	0		3-2-3 8 2.7 3	4-4-4 12 4 4		
CA RO					4-6-8 18 6 8	1-2-2 5 1.7 2	0-1-1 2 0.7 1		1-3-3 7 2.3 3	4-4-4 12 4 4		
RE VI					12-9-14 35 11.7 14	3-3-4 10 3.3 4	0		3-3-4 10 3.3 4	4-4-4 12 4 4		
CO CR					8-0-9 17 5.7 9	0	4-0-5 9 3 5		4-0-5 9 3 5	4-0-3 7 2.3 4		
WO TH					10-8-2 20 6.7 10	4-3-1 8 2.7 4	0		4-3-1 8 2.7 4	4-4-2 8 2.7 4		
SC TA					2-1-1 4 1.3 2	1-1-1 3 1 1	0		1-1-1 3 1 1	2-1-1 4 1.3 2		
OV EN					4-8-6 18 6 8	2-2-2 6 2 2	0		2-2-2 6 2 2	3-4-4 11 3.7 4		
HO WA					3-1-1 5 1.7 3	1-0-1 2 0.7 1	0-1-0 1 0.3 1		1-1-1 3 1 1	3-1-1 5 1.7 3		1-1-0 2 0.7 1
RB WO					5-7-0 12 4 7	3-3-0 6 2 3	0		3-3-0 6 2 3	2-4-0 6 2 4		0
LO WA					1-1-0 2 0.7 1	1-1-0 2 0.7 1	0		1-1-0 2 0.7 1	1-1-0 2 0.7 1		0

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE #1 of 2

Observer's Initials TA Date 149 Yr. 79 Time 0555 to 0615 Temp. 52 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (12/13/14/15) (16/17) cover 2
 and 1 Plot A34 Visit 1 Area 30/31/32 Isola- 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 tion Type

PHASE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adults <50
FWPE	X	X	X	X	4	1			1	4		
ACFL	X	X	X	X	9	3			3	4		
CARD	X	X	X	X	4	1			1	4		
REVI	X	X	X	X	12	3			3	4		
COCR	-	-	-	-	8		4		4	4		
WATH	X	X	X	X	10	4			4	4		
SCYA	X	X			2	1			1	2		
OVEN		X	X	X	4	2			2	3		
HOWA		X	X	X	3	1			1	3		1
RENO			X	X	5	3			3	2		
OWI			X	X	2	1			1	2		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE 1 of 2

Observer's initials TA Date 163 Yr. 79 Time 0758 to 0818 Temp. 56 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (12/13/14/15) (16/17) cover

Band 2 Plot A 34A Visit 2 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 26/27/28 No. 29 (ha)

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
OVER	X	X	X	X	8	2			2	4		
ACFL	X	X	X	X	8	2			2	4		
DOWO		X			1	1			1	1		
WOTH		X	X	X	8	3			3	4		
TUTI	X		X	X	4	3			3	3		
RBWG	X	X	X	X	7	3			3	4		
REVI	X	X	X	X	9	3			3	4		
CARD		X	X	X	6	2	1		3	4		
EWPE	X	X	X		2	1			1	2		
SCTA		X			1	1			1	1		
COCP		X			☆							

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's Initials TA Date 176 Yr. 79 Time 0753 to 0813 Temp: 55 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (C.) 16/17 cover
 d 3 Plot A34p Visit 3 Area Isola- Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

HA	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	\sum 5-min interv.	\sum sing. males	\sum non- sing- adults	\sum adult fly- overs	\sum all adults	F	\sum immat- ures	\sum adult <50
REVI	x	x	x	x	14	4			4	4		
ACFL	x	x	x	x	10	3			3	4		
CARD	-	x	-	x	8	2	1		3	4		
OVEN		x	x	x	6	2			2	4		
BLJA	-	-		x	2		1		1	2		
YBCU	x	x	x		4	2			2	3		
COCR	-	-	-	-	9		5		5	3		
TUTI	x	x	x	x	4	1			1	4		
SCTA	x				1	1			1	1		
HOWA		x			1	1			1	1		
WO7H			x	x	2	1			1	2		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 PAGE 2

Observer's Initials TA Date 176 Yr. 79 Time 0753 to 0813 Temp. 55 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (12/13/14/15) (16/17) cover

Plot No. 3 22 Plot A34p Visit No. 3 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

HA E	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <5
	1	2	3	4								
EWPE			x	x	2	1			1	2		
CACH			x		2	1	1		2	1		
RTHU			x		1	1			1	1		
			* 2 RBWO called after count period									

X=singing males; -non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 102

Observer's MH Date 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. ($^{\circ}$ C.) 16/17 Cloud cover
 initials 1/2 (Julian) 3/4/5 Yr. 6/7
 Plot A38 Visit Area 17 Isolation Border
 No. 26/27/28 No. 29 (ha) 30/31/32 Type 37/38/39/40

SPECIES	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
RE VI					11-10-8 29 9.7 11	9-3-2 9 3 4	0	0	4-3-2 9 3 4	4-4-4 12 4 4	0	0
AL FL					4-3-4 11 3.7 4	1-1-2 4 1.3 2	0	0	1-1-2 4 1.3 2	4-3-3 10 3.3 4		
CO LR					0-0-1 1 0.3 1	0	0-0-1 1 0.3 1	4-3-3 10 3.3 4	4-3-4 11 3.7 4	2-0-1 1 0.3 1		
CA RO					5-2-0 7 2.3 5	1-2-0 3 1 2	1-0-0 1 0.3 1	0	2-2-0 4 1.3 2	3-2-0 5 1.7 3		
BH CO					4-4-0 8 2.7 4	0	1-1-0 2 0.7 1	0	1-1-0 2 0.7 1	4-4-0 8 2.7 4		
BO BW					3-0-0 3 1 3	1-0-0 1 0.3 1	0	0	1-0-0 1 0.3 1	3-0-0 3 1 3		
TY TI					4-1-4 9 3 4	1-1-2 4 1.3 2	0	0	1-1-2 4 1.3 2	4-1-3 8 2.7 4		
EW PE					2-5-0 7 2.3 5	1-2-0 3 1 2	0	0	1-2-0 3 1 2	2-4-0 6 2 4		
CO GR					2-1-0 3 1 2	0	2-1-0 3 1 2	1-0-2 3 1 2	3-1-2 6 2 3	2-1-0 3 1 2		
RB WD					3-3-0 6 2 3	0	1-1-0 2 0.7 1	0	1-1-0 2 0.7 1	3-3-0 6 2 3		
CO YE					2-0-0 2 0.7 2	1-0-0 1 0.3 1	0	0	1-0-0 1 0.3 1	2-0-0 2 0.7 2		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 2 of 2

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. ($^{\circ}$ C.) 16/17 Cloud cover

Plot No. A38 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

Observer	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult flyovers	Σ all adults	F	Σ immatures	Σ adults < 50
YB CH					1-3-4 8 2.7 4	1-1-2 4 1.3 2	0	0	1-1-2 4 1.3 2	1-3-2 6 2 3	0	0
WO TH					1-5-0 6 2 5	1-1-0 2 0.7 1	0-1-0 1 0.3 1	0	1-2-0 3 1 2	1-4-0 5 1.7 4		0-1-0 1 0.3 1
DO WO					0-5-0 5 1.7 5	0	0-2-0 2 0.7 2	0	0-2-0 2 0.7 2	0-4-0 4 1.3 4		0
RS TD					0-1-4 5 1.7 4	0-1-1 2 0.7 1	0	0	0-1-1 2 0.7 1	0-1-4 5 1.7 4		
ST AR					0	0	0	0-2-0 2 0.7 2	0-2-0 2 0.7 2	0		
CA WR					0-2-0 2 0.7 2	0-1-0 1 0.3 1	0	0	0-1-0 1 0.3 1	0-2-0 2 0.7 2		
SC TA					0-1-0 1 0.3 1	0-1-0 1 0.3 1	0	0	0-1-0 1 0.3 1	0-1-0 1 0.3 1		
AM RD					0-0-3 3 1 3	0	0-0-2 2 0.7 2	0	0-0-2 2 0.7 2	0-0-3 3 1 3		
FR CH					0	0	0	0-0-1 1 0.3 1	0-0-1 1 0.3 1	0		
CR CA					0-0-2 2 0.7 2	0-0-1 1 0.3 1	0	0	0-0-1 1 0.3 1	0-0-2 2 0.7 2		
CA CH					0-0-1 1 0.3 1	0-0-1 1 0.3 1	0	0	0-0-1 1 0.3 1	0-0-1 1 0.3 1		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date 153 Yr. 79 Time 0619 to 0639 Temp. 69 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (⁰C.) 16/17 cover

Plot A38 Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 26/27/28 No. 29 (ha) Type

SPECIES	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing. adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
RE V3	X X	X	X X		11	4			4	4		
AL FL	X	X	X	X	4	1			1	4		
AM CR	-	-	-	-	7		4 →		4	4		
CA RD	-	X	X		5	1	1		2	3		
BH CO	-	-	-	-	4		1		1	4		
BO W	X	X		X	3	1			1	3		
TH TF		X	X	X	4	1			1	4		
EA PE			X	X	2	1			1	2		
CO GR		-	V	-	2		2	1	3	2		
AB WU		-	-	-	3		1		1	3		
YE LL			X	X	2	1			1	2		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

page 1

observer's initials MH Date 164 Yr. 79 Time 0929 to 0949 Temp. ⁶⁷ 16/17 Cloud ⁰ cover
 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15
 and 4 Plot A39 Visit 2 Area Isola- Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adults <50
RE VE	x	x	xx	xx	10	3			3	4		
DO WU	-	-	-	-	5		2		2	4		
CA RD	x	x			2	2			2	2		
EA PE	x	x	x	x	5	2			2	4		
RS TD	x				1	1			1	1		
ST AR	v			v				2	2			
CO GR	-				1		1		1	1		
CA WA	x	x			2	1			1	2		
WO TH	x	x	x	x	5	1	1		2	4		1
AM CA	v		v	v				3	3			
DU LO	-	-	-	-	4		1		1	4		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MH Date 176 Yr. 79 Time 0836 to 0856 Temp. 62 Cloud 0
 initials 1/2 (Julian) 3/4/5 (start) 8/9/10/11 (6 C.) 16/17 cover

Plot A38 Visit 3 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 26/27/28 No. 29 (ha) 30/31/32 Type 37/38/39/40

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
AM RO	-		-	-	3		2		2	3		
TH TI	x		x	x	4	2			2	3		
AM CR	x v	v	- v	v	1		1	3	4	1		
RE VS	x x	x	x x	x	8	2			2	4		
BS TD		x		x	4	1			1	4		
CO GR		v	v					2	2			
AL FL		x	x	x	4	2			2	3		
FI CA		v						1	1			
CA TB			x	x	2	1			1	2		
YB CU			x	x	4	2			2	2		
CA CT				x	1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 1 of 2

Observer's MH Date 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover
 initials 1/2 (Julian) 3/4/5 Yr. 6/7
 Plot A40 Visit 29 Area 43 Isolation 35/36 Border Type 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

HA E	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
RE VI					8-8-8 24 8 8	3-2-2 7 2,3 3	0-0-1 1 0,3 1	0	3-2-3 8 2,7 3	4-4-4 12 4 4	0	0-0-1 1 0,3 1
YB CH					3-0-3 6 2 3	1-0-1 2 0,7 1	0	0	1-0-1 2 0,7 1	3-0-3 6 2 3		0
AL FL					4-3-0 7 2,3 4	1-1-0 2 0,7 1	0	0	1-1-0 2 0,7 1	4-3-0 7 2,3 4		0
CA RD					5-3-6 14 4,7 6	1-1-1 3 1 1	1-1-1 3 1 1	0	2-2-2 6 2 2	4-3-4 11 3,7 4		0
NB WD					1-0-1 2 0,7 1	0	1-0-1 2 0,7 1	0	1-0-1 2 0,7 1	1-0-1 2 0,7 1		0
CO GR					10-8-0 18 6 10	0	5-2-0 8 2,7 5	1-0-1 2 0,7 1	6-3-1 10 3,3 6	4-3-0 7 2,3 4		0
BL JA					6-0-0 6 2 6	0	3-0-0 3 1 3	0	3-0-0 3 1 3	4-0-0 4 1,3 4		1-0-0 1 0,3 1
CO CR					0	0	0	2-2-0 4 1,3 2	2-2-0 4 1,3 2	0		0
GC FL					3-3-0 6 2 3	0	1-1-0 2 0,7 1	0	1-1-0 2 0,7 1	3-3-0 6 2 3		0-1-0 1 0,3 1
TY TI					4-2-1 12 4 7	1-2-0 4 1,3 3	1-1-1 3 1 1	0	2-4-1 7 2,3 4	4-4-1 9 3 4		0-1-1 2 0,7 1
OV EM					4-0-0 4 1,3 4	1-0-0 1 0,3 1	0	0	1-0-0 1 0,3 1	4-0-0 4 1,3 4		0

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET) sheet # 2 of 2

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover
 Plot No. AYO Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

Observer	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50
	1	2	3	4								
AS TO					1-1-4 6 2 4	1-1-2 4 1.3 2	0	0	1-1-2 4 1.3 2	1-1-3 5 1.7 3	0	0
NO TH					2-0-3 5 1.7 3	1-0-0 1 0.3 1	0-0-1 1 0.3 1		1-0-1 2 0.7 1	2-0-3 5 1.7 3		0
MO DU					1-0-0 1 0.3 1	1-0-0 1 0.3 1	0		1-0-0 1 0.3 1	1-0-0 1 0.3 1		0
OH CO					0-1-0 1 0.3 1	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-1-0 1 0.3 1		0
SC TA					0-2-3 5 1.7 3	0-1-1 2 0.7 1	0		0-1-1 2 0.7 1	0-2-3 5 1.7 3		0-1-0 1 0.3 1
YS FL					0-1-0 1 0.3 1	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-1-0 1 0.3 1		0-1-0 1 0.3 1
AM RO					0-0-2 2 0.7 2	0	0-0-1 1 0.3 1		0-0-1 1 0.3 1	0-0-2 2 0.7 2		0
CA CH					0-0-5 5 1.7 5	0-0-1 1 0.3 1	0-0-1 1 0.3 1		0-0-2 2 0.7 2	0-0-3 3 1 3		0
FI CR					0	0	0	0-0-1 1 0.3 1	0-0-1 1 0.3 1	0		0

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MA Date 153 Yr. 79 Time 0653 to 0713 Temp. 67 Cloud 2
 initials. 1/2 (Julian) 3/4/5 (start) 8/9/10/11 (12/13/14/15) (16/17) cover
 rd 2 Plot A40 Visit 1 Area 30/31/32 Isola- Border
 No. 26/27/28 No. 29 tion 35/36 Type 37/38/39/40

PHASIDE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
RE VI	x	x	x	x	8	3			3	4		
VB CA	y	x	x		3	1			1	3		
AC PL	x	x	x	x	4	1			1	4		
CA RO	x	x	x	x	5	1	1		2	4		
AG WD	-				1		1		1	1		
CO LA	-	v	-	-	10		5	1	6	4		
LA JA	0	-	-	-	6		3		3	4		1
AD LA	-	-	-	-	6		2		2	4		
LA FL	-		-	-	3		1		1	3		
LA JA	-	-	-	x	4	1	1		2	4		
OU SP	x	x	x	x	4	1			1	4		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date 164 Yr. 79 Time 0854 to 0914 Temp. ⁶⁵ 16/17 Cloud 0
 (Julian) 3/4/5 (start) 3/9/10/11 to 12/13/14/15 (°C.) 16/17 cover

Band 4 Plot A40 Visit 2 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

P. PHA DE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-61 Σ adult <50
	1	2	3	4								
CO GA	≡	≡			8		3		3	3		
AE VI	x	x	x	x	8	2			2	4		
TH TE	x	x	x	x	7	3	1		4	4		1
CA AD			x	x	3	1	1		2	3		
AM CR	v	v						2	2			
OH CO					1		1		1	1		
GC FL	⊙	⊙			3		1		1	3		1
AC FL	x	x	x		3	1			1	3		
RS TO			x		1	1			1	1		
SC TA			⊙	⊙	2	1			1	2		1
CO FL			⊙	⊙	1		1		1	1		1

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

page 1

Observer's MH Date 176 Yr. 79 Time 0909 to 6929 Temp. 62 Cloud 0
 initials 1/2 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover
 Band 5 Plot A40 Visit 3 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha)

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adults < 50
RS TO	-	-	-		4		2		2	3		
AM RB	-				2		1		1	2		
SG TA	x		-	-	3	1			1	3		
RE VZ	x x	x x	- x	⊙ x	8	2	1		3	4		1
YB G4	x	x	x		3	1			1	3		
CA RD	*	x	-	x	6	1	1		2	4		
CO GR	✓							1	1			
VO TH	-	-	-		3		1		1	3		
CA CH	x	x	x		5	1	1		2	3		
TY TJ				⊖	1		1		1	1		1
FI CR				✓				1	1			

X=singing males; - =non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
sheet #1023

Observer's MH Date 1/2 (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. ($^{\circ}$ C.) 16/17 Cloud cover 2

Plot A48 Visit 29 Area 21 Isolation 35/36 Border 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha) 30/31/32 Type 37/38/39/40

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
SC TA					4-4-0 8 2.7 4	1-2-0 3 1 2	0	0	1-2-0 3 1 2	4-4-0 8 2.7 4	0	0
RE VI					9-12-9 30 10 12	3-4-3 10 3.3 4	0-1-0 1 0.3 1	0	3-5-3 13 4.3 5	4-4-4 12 4 4		0
AC FL					5-5-8 18 6 8	2-2-2 6 2 2	0-0-1 1 0.3 1	0	2-2-3 7 2.3 3	3-4-4 11 3.7 4		0-0-2 2 0.7 2
OV EN					3-8-9 20 6.7 9	1-3-4 8 2.7 4	0	0	1-3-4 8 2.7 4	3-4-4 11 3.7 4		0
CO CR					0	0	0	2-2-2 6 2 2	2-2-2 6 2 2	0		
TY TI					4-3-3 10 3.3 4	1-2-1 4 1.3 2	0	0	1-2-1 4 1.3 2	4-3-3 10 3.3 4		
RB WD					3-2-2 7 2.3 3	0	1-1-2 4 1.3 2	0	1-1-2 4 1.3 2	3-2-2 7 2.3 3		
CO GR					0-7-0 7 2.3 7	0	0-3-0 3 1 3	2-2-0 4 1.3 2	2-5-0 7 2.3 5	0-3-0 3 1 7		
YB CY					3-0-1 4 1.3 3	2-0-1 3 1 2	0	0	2-0-1 3 1 2	3-0-1 4 1.3 3		
IN BY					6-1-0 7 2.3 6	2-1-0 3 1 2	0	0	2-1-0 3 1 2	4-1-0 5 1.7 14		
RS TO					3-0-0 3 1 3	1-0-0 1 0.3 1	0	0	1-0-0 1 0.3 1	3-0-0 3 1 3		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 Sheet # 2 of 3

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2
 Band 22 Plot No. A48 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

Observer	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
CARD					2-2-7 11 3.7 7	2-1-2 5 1.7 2	0	0	2-1-2 5 1.7 2	2-2-4 8 2.7 4	0	0
AMRO					1-0-0 1 0.3 1	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	1-0-0 1 0.3 1		0
HOWA					2-3-4 9 3 4	1-1-2 4 1.3 2	0		1-1-2 4 1.3 2	2-3-4 9 3 4		1-0-0 1 0.3 1
WOTH					2-3-3 8 2.7 3	1-1-1 3 1 1	0		1-1-1 3 1 1	2-3-3 8 2.7 3		0
LOWA					1-0-0 1 0.3 1	1-0-0 1 0.3 1	0		1-0-0 1 0.3 1	1-0-0 1 0.3 1		0
EWPE					0-2-0 2 0.7 2	0-1-0 1 0.3 1	0		0-1-0 1 0.3 1	0-2-0 2 0.7 2		0
NOVA					0-2-3 5 1.7 3	0-1-1 2 0.7 1	0		0-1-1 2 0.7 1	0-2-3 5 1.7 3		0
KEWA					0-7-2 9 3 7	0-1-1 2 0.7 1	0-1-0 1 0.3 1		0-2-1 3 1 2	0-4-2 6 2 4		0-1-1 2 0.7 1
BLJA					0-2-1 3 1 2	0	0-1-1 2 0.7 1		0-1-1 2 0.7 1	0-2-1 3 1 2		0
CACH					0-2-3 5 1.7 3	0-0-1 1 0.3 1	0-1-0 1 0.3 1		0-1-1 2 0.7 1	0-2-3 5 1.7 3		0
YBCH					0-1-0 1 0.3 1	0-1-0 1 0.3 1	0		0-1-0 1 0.3 1	0-1-0 1 0.3 1		0

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET) (rise)

observer's initials MH Date 146 Yr. 79 Time 0902 to 0922 Temp. ⁵³ 16/17 Cloud 1
 (Julian) 3/4/5 (start) 8/9/10/11 to 12/13/14/15 (°C.) 16/17 cover

and 3 Plot A48 Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

P. PHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
SC TA	x	x	x	x	4	1			1	4		
RE VE	x x	x	x	x	9	3			3	4		
AL FL				x	5	2			2	3		
OV EN	x		x	x	3	1			1	3		
CE VA (mg)					missant							
AM CR					3		2 →		2	3		
10 12	x	x	x	x	4	1			1	4		
RB WO					3		1		1	3		
CO GA	V			V			2		2			
YB CA	x			x	3	2			2	3		
SN DU	x	x	x	x	6	2			2	4		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

1995-1

Observer's MH Date 3/4/5 Yr. 79 Time 0639 to 0659 Temp. 59 Cloud 0
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (6 C.) 16/17 cover
 rd 1 Plot A48 Visit 2 Area 30/31/32 Isola- Border
22 No. 26/27/28 No. 29 (ha) 35/36 tion 37/38/39/40 Type 37/38/39/40

PHASE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
RE VI	x	= x	= x	x ^x x	12	4	1		5	4		
SC TA	x ^x x	x	x		4	2			2	4		
AC FL	x	x x	x	x	5	2			2	4		
EA FE	x			x	2	1			1	2		
PA VA	x	x			2	1			1	2		
HO WA	x	x	x		3	1			1	3		
HE WA	x	⊙ x	x	=	7	1	1		2	4		1
OV EV	x x	x x	x x	x ^x	8	3			3	4		
RB WO	-			-	2		1		1	2		
AM CR	v		v	v				2	2			
LO GR	-	- v	-	v	7		3	2	5	3		

X=singing males; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

1952

Observer's MH Date 170 Yr. 79 Time 0858 to 0919 Temp. 64 Cloud 2
 initials 1/2 (Julian) 3/4/5 (start) 8/9/10/11 to 12/13/14/15 (°C.) 16/17 cover

Band 4 Plot A48 Visit 3 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha)

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adults <50
RE V2	x	x	x	x x	9	3			3	4		
CA RD	x	x	x	x	7	2			2	4		
PA WA	x	x	x		3	1			1	3		
DO WA	⊙ ⊙ ⊙	⊙ ⊙	+	-	10	2			2	4	1	2
AL FL	⊙	⊙		⊙ x	8	2	1		3	4		2
HO WA	x	x	x	x	4	2			2	4		
OV BN	x	x	x	x x	9	4			4	4		
RB WA	-				2		2		2	2		
KE WT	x	⊙			2	1			1	2		1
YB CU	x				1	1			1	1		
YE LV	x	x	x		3	1			1	3		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 Sheet #1 of 2

Observer's Initials TA Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Plot No. 22 Plot A64 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

Observer	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
RB WD					4-4-2 9 2.7 4	2-1-1 4 1.3 2	0	0	2-1-1 4 1.3 2	3-4-2 9 3 4	0	0
CA CH					4-0-0 4 1.3 4	1-0-0 1 0.3 1	0		1-0-0 1 0.3 1	4-0-0 4 1.3 4		
EW FE					2-5-4 11 3.7 5	1-2-1 4 1.3 2	0		1-2-1 4 1.3 2	2-4-4 10 3.3 4		
RE VI					8-6-8 20 6.7 8	2-2-2 6 2 2	0		2-2-2 6 2 2	4-3-4 11 3.7 4		
WO TH					6-1-0 7 2.3 6	2-0-0 2 0.7 2	0-1-0 1 0.3 1		2-1-0 3 1 2	4-1-0 5 1.7 4		
AC FL					4-5-7 16 5.3 7	1-2-2 5 1.7 2	0-0-1 1 0.3 1		1-2-3 6 2 3	4-3-4 11 3.7 4		1-1-0 2 0.7 1
CA RD					1-1-1 3 1 1	1-1-1 3 1 1	0		1-1-1 3 1 1	1-1-1 3 1 1		0
MO CH					3-0-0 3 1 3	1-0-0 1 0.3 1	0		1-0-0 1 0.3 1	3-0-0 3 1 3		
SC TA					4-0-6 10 3.3 6	1-0-2 3 1 2	0		1-0-2 3 1 2	4-0-4 8 2.7 4		
YB CY					2-0-1 3 1 2	1-0-1 2 0.7 1	0		1-0-1 2 0.7 1	2-0-1 3 1 2		
TY TI					2-1-3 6 2 3	1-1-1 3 1 1	0		1-1-1 3 1 1	2-1-3 6 2 3		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE 1 of 2

Observer's Initials TA Date 157 Yr. 79 Time 053.5 to 055.5 Temp. 60 Cloud 1
 (Julian) 3/4/5 (start) 8/9/10/11 (12/13/14/15) (16/17) cover

Plot A64 Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 26/27/28 No. 29 (ha)

SPECIES	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	\sum 5-min interv.	\sum sing. males	\sum non-sing. adults	\sum adult flyovers	\sum all adults	F	\sum immatures	\sum adult <50
RBWO	x		x	x	4	2			2	3		
CACH	x	x	x	x	4	1			1	4		
EWPE	x			x	2	1			1	2		
REVI	x	x	x	x	8	2			2	4		
WOTH	x		x	x	6	2			2	4		
ACFL	⊗	x	x	x	4	1			1	4		1
CARD	x				1	1			1	1		
MOCK	x	x	x		3	1			1	3		
SCTA	x	x	x	x	4	1			1	4		
PCU	x	x			2	1			1	2		
TUTI		x	x		2	1			1	2		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

PAGE 2

Observer's initials TA Date 157 (Julian) 3/4/5 Yr. 79 6/7 Time 0535 to 0555 (start) 8/9/10/11 12/13/14/15 Temp. 60 (°C.) 16/17 Cloud cover 1

Plot No. 0 22 Area (ha) 30/31/32 Visit No. 1 29 Isolation 35/36 Border Type 37/38/39/40

5-minute interval	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
			V									

* Active WOTH Nest in Fagus 10 feet above stagnant stream
10 meters west of central tree. Being incubated.

AMGO
COCP

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's Initials TA Date 165 Yr. 79 Time 845 to 0905 Temp. 58 Cloud 0
 (Julian) 3/4/5 (start) 8/9/10/11 (^oC.) 16/17 cover

Plot No. 2 22 A64 Visit No. 2 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

SPECIES	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
FWPE	x	x	x		5	2			2	4		
ACFL	x		⊗	x	5	2			2	3		1
PBWA	x	x	x	x	4	1			1	4		
REVI		x	x	xx	6	2			2	3		
BLJA					1		1		1	1		
OWNO			x		1	1			1	1		
NOTH					1		1		1	1		
CARD				x	1	1			1	1		
OVEN				x	1	1			1	1		
TUTI				x	1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's TA Date 171 Yr. 79 Time 0647 to 0707 Temp. 58 Cloud 0
 initials 1/2 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover

Plot A64 Visit 3 Area 30/31/32 Isola- Border
 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

HA	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing. adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
REVI	x	x	x		8	2			2	4		
CARD	x				1	1			1	1		
YBCU	x				1	1			1	1		
EWPE	x				4	1			1	4		
ACFL	x				7	2	1		3	4		
OVEN	x				6	2			2	3		
PBWA	x				2	1			1	2		
SCTA		x	x	x	6	2			2	4		
TUTI		x	x	x	3	1			1	3		
PIWO			x		1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 1 of 3

Observer's MH Date 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. ($^{\circ}$ C.) 16/17 Cloud cover
 initials. 1/2 (Julian) 3/4/5 6/7

Plot A73p Visit 29 Area 10 Isolation 35/36 Border Type 37/38/39/40
 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult flyovers	Σ all adults	F	Σ immatures	Σ adults < 50
RE VI					8-5-8 21 7 8	2-2-2 6 2 2	0-0-1 1 0.3 1	0	2-2-3 7 2.3 3	4-4-4 12 4 4	0	0-0-2 2 0.7 2
OV EN					6-9-2 17 5.7 9	2-3-1 6 2 3	0		2-3-1 6 2 3	4-4-2 10 3.3 4	0	1-0-0 1 0.3 1
CA RD					8-9-6 23 7.7 9	1-2-2 5 1.7 2	3-1-0 4 1.3 3		4-3-2 9 3 4	3-4-4 11 3.7 4	0-1-0 1 0.3 1	1-0-0 1 0.3 1
WO TH					6-1-5 12 4 6	2-0-2 4 1.3 2	1-1-0 2 0.7 1		3-1-2 6 2 3	4-1-4 9 3 4	0	0
RB WO					4-3-5 12 4 5	0	1-1-2 4 1.3 2		1-1-2 4 1.3 2	4-3-4 11 3.7 4		
EW PE					5-7-6 18 6 7	2-3-2 7 2.3 3	0		2-3-2 7 2.3 3	4-4-4 12 4 4		
CA WR					3-3-2 8 2.7 3	1-1-1 3 1 1	1-0-0 1 0.3 1		2-1-1 4 1.3 2	2-3-2 7 2.3 3		
TY TI					3-4-3 10 3.3 4	1-1-1 3 1 1	0		1-1-1 3 1 1	3-4-3 10 3.3 4		
AM RD					3-1-13 17 5.7 13	0-0-1 1 0.3 1	2-1-5 8 2.7 5		2-1-6 9 3 6	2-1-4 7 2.3 4		0-0-2 2 0.7 2
MO CH					1-0-0 1 0.3 1	1-0-0 1 0.3 1	0		1-0-0 1 0.3 1	1-0-0 1 0.3 1		0
BL JA					1-2-2 5 1.7 2	0	1-1-1 3 1 1		1-1-1 3 1 1	1-2-2 5 1.7 2		0

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 2 of 3

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover
 Plot A73p Visit Area Isolation Border
 No. 22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

Observer	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-61 Σ adult <50
	1	2	3	4								
BO BW					0-4-5 9 3 5	0-1-2 3 1 2	0	0	0-1-2 3 1 2	0-4-4 8 2.7 4	0	0
YS FL					0-2-0 2 0.7 2	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-2-0 2 0.7 2		
CA CH					0-4-4 8 2.7 4	0-1-0 1 0.3 1	0-1-2 3 1 2		0-2-2 4 1.3 2	0-3-3 6 2 3		
GR CA					0-1-0 1 0.3 1	0-1-0 1 0.3 1	0		0-1-0 1 0.3 1	0-1-0 1 0.3 1		
SC TA					0-3-3 6 2 3	0-1-1 2 0.7 1	0		0-1-1 2 0.7 1	0-3-3 6 2 3		
BH CO					0-1-0 1 0.3 1	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-1-0 1 0.3 1		
SO SP					0-2-2 4 1.3 2	0-1-1 2 0.7 1	0		0-1-1 2 0.7 1	0-2-2 4 1.3 2		
CO GR					0-1-6 7 2.3 6	0	0-1-2 3 1 2	0-0-1 1 0.3 1	0-1-3 4 1.3 3	0-1-3 4 1.3 3		
ST AR					0-1-0 1 0.3 1	0	0-1-0 1 0.3 1	0	0-1-0 1 0.3 1	0-1-0 1 0.3 1		
CO CR					0	0	0	0-0-1 1 0.3 1	0-0-1 1 0.3 1	0		
CH SP					0-0-2 2 0.7 2	0-0-1 1 0.3 1	0	0	0-0-1 1 0.3 1	0-0-2 2 0.7 2		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MH Date 145 Yr. 79 Time 1010 to 1030 Temp. 22 Cloud 2
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover 2

End 3 Plot A73P Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

P. ALPHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
RE VI	+	+	+	+	8	2			2	4		
OV EN	+	+	+	+	6	2			2	4		1
CA RD	-	=	-+		8	1	3		4	3		1
WD TH	+	+	+	+	6	2	1		3	4		
RB WV	-	-	-	-	4		1		1	4		
EA IE	+	+	+	+	5	2			2	4		
CA WA	+	+			3	1	1		2	2		
JH TI	+	+		+	3	1			1	3		
AM RO		-	=		3		2		2	2		
MO CK				+	1	1			1	1		
BL JA				-	1		1		1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date 158 Yr. 79 Time 0557 to 0617 Temp. 16/17 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (°C.) 16/17 cover
 Band 1 Plot A73 Visit 2 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adult <50
DE	x	x	x	x	9	3			3	4		
EE	x	x	x	x	5	2			2	4		
BT	x	x	x	x	4	1			1	4		
CO	-	-	-	-	2		1		1	2		
CA	x		x	x	4	1	1		2	3		
EA	-	x	x	-	10	2	1		3	4	1	
SA	x	x	x	x	7	3			3	4		
TH	x	-	x	x	4	1			1	4		
BL	-	-	-	-	2		1		1	2		
EA					1	1			1	1		
VO					1		1		1	1		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date 169 Yr. 79 Time 0725 to 0745 Temp. ⁶⁵ 16/17 Cloud/cover 16/17
 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15

Band 1 Plot A73 Visit 3 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min. interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adults <50
AE V3	⊗	x ⊗	x ⊗	x ⊗	8	2	1		3	4		2
CA CU	=		-	-	4		2		2	3		
CA RD	*	x	-		6	2			2	4		
TY TL	x	x	x		3	1			1	3		
CA WA	-	x			2	1			1	2		
EA PE	x	x	x x	x x	6	2			2	4		
OV EN	x	x			2	1			1	2		
AM AO	-	=	⊗	-	13	1	5		6	4		2
AB WO	-	-	-	-	5		2		2	4		
AO OW	x	x	x		5	2			2	4		
AM CR	✓	✓	✓					1	1			

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 Sheet # 1 of 2

Observer's Initials MH Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover 2

Plot No. A84 Visit No. 29 Area (ha) 27 Isolation 35/36 Border Type 37/38/39/40

PHASE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
ME VI					10-6-2 18 6 10	3-3-1 7 2.3 3	0	0	3-3-1 7 2.3 3	4-4-2 10 3.3 4	0	0
CA RD					6-3-0 9 3 6	2-1-0 3 1 2	0	0	2-1-0 3 1 2	3-2-0 6 2 3	0	
WO TH					4-1-4 9 3 4	1-1-2 4 1.3 2	0-0-1 1 0.3 1	0	1-1-3 5 1.7 3	4-1-3 8 2.7 4	0-0-3 3 1 3	
CO CR					0	0	0	2-1-0 3 1 2	2-1-0 3 1 2	0	0	
RB WD					2-5-0 7 2.3 5	0	1-2-0 3 1 2	0	1-2-0 3 1 2	2-4-0 6 2 4	0	
OV EN					3-6-5 14 4.7 6	2-2-3 7 2.3 3	0-0-1 1 0.3 1		2-2-4 8 2.7 4	2-4-3 9 3 4	0-0-1 1 0.3 1	
TY TI					1-1-0 2 0.7 1	1-1-0 2 0.7 1	0		1-1-0 2 0.7 1	1-1-0 2 0.7 1	0	
BL JA					0-5-2 7 2.3 5	0	0-2-1 3 1 2		0-2-1 3 1 2	0-4-2 6 2 4		0-1-0 1 0.3 1
CO GR					0-6-0 6 2 6	0	0-3-0 3 1 3		0-3-0 3 1 3	0-3-0 3 1 3		0
SC JA					0-1-0 1 0.3 1	0-1-0 1 0.3 1	0		0-1-0 1 0.3 1	0-1-0 1 0.3 1		0
CA CH					0-1-0 1 0.3 1	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-1-0 1 0.3 1		0

X=singing males; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MH Date 159 Yr. 79 Time 0942 to 1002 Temp. ⁷⁴ 16/17 Cloud 1
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover
 rd 2 Plot A84 Visit 2 Area Isola- Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

PHASE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
CA RD	X	-	X		3	1			1	3		
RE VE	X	X	X	X	6	3			3	4		
BY JA	⊖	⊖	-	-	5		2		2	4		1
AB WD	-	-	-	=	5		2		2	4		
CG GP	=	=		-	6		3		3	3		
OV EV	X			X	6	2			2	4		
GC TA	X				1	1			1	1		
WO TH				X	1	1			1	1		
TH TL			X		1	1			1	1		
AM CR				V				1	1			
CA CB				-	1		1		1	1		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 1 of 2

server's MH Date Yr. 79 Time to Temp. Cloud
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover
 nd Plot A85 Visit Area 191 Isola- Border
 22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

P. PHA DE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50
	1	2	3	4								
RE VI					4-11-10 25 8.3 11	2-3-3 8 2.7 3	0-0-1 1 0.3 1	0	2-3-4 9 3 4	2-4-4 10 3.3 4	0	0
YS FL					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	2-0-0 2 0.7 2		
OV EN					5-6-7 18 6 7	2-3-3 8 2.7 3	0		2-3-3 8 2.7 3	4-3-4 11 3.7 4		
SC TA					3-0-0 3 1 3	1-0-0 1 0.3 1	0		1-0-0 1 0.3 1	3-0-0 3 1 3		
IN BY					4-4-0 8 2.7 4	1-1-0 2 0.7 1	0		1-1-0 2 0.7 1	4-4-0 8 2.7 4		
BA WW					1-0-1 2 0.7 1	0-0-1 1 0.3 1	1-0-0 1 0.3 1		1-0-1 2 0.7 1	1-0-1 2 0.7 1		1-0-0 1 0.3 1
CO CR					0	0	0	1-3-3 7 2.3 3	1-3-3 7 2.3 3	0		0
HO WA					1-1-0 2 0.7 1	1-1-0 2 0.7 1	0	0	1-1-0 2 0.7 1	1-1-0 2 0.7 1		
BL JA					4-1-1 6 2 4	0	2-1-1 4 1.3 2		2-1-1 4 1.3 2	3-1-1 5 1.7 3		
GC FL					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	2-0-0 2 0.7 2		
AC FL					2-6-0 8 2.7 6	1-1-0 2 0.7 1	0-1-0 1 0.3 1		1-2-0 3 1 2	2-4-0 6 2 4		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

page 1

Observer's initials MH Date 145 Yr. 79 Time 0847 to 0907 Temp. 20 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (°C.) 16/17 cover 20

Band 1 Plot A850 Visit 1 Area Isolation Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 35/36 Type 37/38/39/40

P. PHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
RE VF	+			+	4	2			2	2		
CO FL	-	-			2		1		1	2		
OV EM	+	+	+	+	5	2			2	4		
SC TA	+	+		+	3	1			1	3		
IN BH	+	+	+	+	4	1			1	4		
BA WW	⊖				1		1		1	1		1
AM CR		-			1		1 →		1	1		
HO WA		+			1	1			1	1		
BL JA		-	-	=	4		2		2	3		
CC FL		-	-		2		1		1	2		
AC TL		+	+		2	1			1	2		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MH Date 158 Yr. 79 Time 0714 to 0734 Temp. 71 Cloud cover 2
 (Julian) 3/4/5 (start) 8/9/10/11 (12/13/14/15) (16/17)
 Band 1 Plot A85r Visit 2 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 22 No. 26/27/28 No. 29 (ha)

P. PHA DE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
DU EW	X X X	X X		X	6	3			3	3		
JN BY	X	X	X	X	4	1			1	4		
WO TH	V	V	X	X X	5	2			2	4		
RE V3	X X	X V X	X -	V X	11	3			3	4		
AL FL	X	X -	X -	X	6	1	1		2	4		
AM CR		V V						3	3			
CA AD		V X?			2	1			1	2		
AS TG					1		1		1	1		
B- JA					1		1		1	1		
HO WA				X	1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials: MH Date: 169 Yr. 79 Time 0812 to 0832 Temp. ⁶⁸ 16/17 Cloud/cover 16/17
 (Julian) 3/4/5 (start) 8/9/10/11 12/13/14/15 (°C.)
 Band 3 Plot A85 Visit 3 Area Isolation Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 35/36 Type 37/38/39/40

P. PHA DE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non-sing. adults	Σ adult fly-overs	Σ all adults	F	Σ immatures	Σ adult <50
RE VI	X	X -	X	X X	10	3	1		4	4		
AS ID	X	X	X		3	1			1	3		
OV EN		X X	X	X	7	3			3	4		
WO TH	X ⊖	X -	X	X	6	1	1		2	4		1
AM CR		✓		✓				3	3			
AL FU		X		X	2	1			1	2		
BL JB			-		1		1		1	1		
CA CH				-	1		1		1	1		
BA WH				X	1	1			1	1		

X=singing male; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 1 of 3

observer's initials MH Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover

and Plot No. AA 94 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

P. PHA DE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
GR CA					5-1-3 9 3 5	2-1-1 4 1.3 2	0	0	2-1-1 4 1.3 2	4-1-3 8 2.7 4	0	0
HO WA					2-0-4 6 2 4	1-0-1 2 0.7 1	0		1-0-1 2 0.7 1	2-0-4 6 2 4		
OV EN					4-1-0 5 1.7 4	1-1-0 2 0.7 1	0		1-1-0 2 0.7 1	4-1-0 5 1.7 4		
WO TH					3-2-4 9 3 4	1-1-0 2 0.7 1	0-0-2 2 0.7 2		1-1-2 4 1.3 2	3-2-2 7 2.3 3		
RB WO					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1		1-0-0 1 0.3 1	2-0-0 2 0.7 2		
RE VI					6-4-0 10 3.3 6	2-1-0 3 1 2	0		2-1-0 3 1 2	4-4-0 8 2.7 4		
CO GR					4-1-2 7 2.3 4	0	2-1-2 5 1.7 2		2-1-2 5 1.7 2	3-1-1 5 1.7 3		
BL JA					1-2-4 7 2.3 4	0	1-1-2 4 1.3 2		1-1-2 4 1.3 2	1-2-3 6 2 3		
IN BL					2-5-2 9 3 5	1-2-2 5 1.7 2	0		1-2-2 5 1.7 2	2-4-2 8 2.7 4		
RS TO					4-2-0 6 2 4	1-1-0 2 0.7 1	1-0-0 1 0.3 1		2-1-0 3 1 2	3-2-0 5 1.7 3		
CA RD					1-3-4 8 2.7 4	1-1-1 3 1 1	0		1-1-1 3 1 1	1-3-4 8 2.7 4		

X=singing males; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 2 of 3

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover

Plot No. AA94 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

PHAE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing. adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
GL FL					2-0-0 2 0.7 2	0	1-0-0 1 0.3 1	0	1-0-0 1 0.3 1	2-0-0 2 0.7 2	0	0
HO SP					2-5-0 7 2.3 5	0	1-2-0 3 1 2		1-2-0 3 1 2	2-3-0 5 1.7 3		
TY TI					2-2-4 8 2.7 4	1-1-1 3 1 1	0		1-1-1 3 1 1	2-2-4 8 2.7 4		
SO SP					1-4-4 9 3 4	1-1-1 3 1 1	0		1-1-1 3 1 1	1-4-4 9 3 4		
PI WA					2-1-0 3 1 2	1-1-0 2 0.7 1	0		1-1-0 2 0.7 1	2-1-0 3 1 2		
EW PE					0-4-0 4 1.3 4	0-1-0 1 0.3 1	0		0-1-0 1 0.3 1	0-4-0 4 1.3 4		
CH SP					0-4-0 4 1.3 4	0-1-0 1 0.3 1	0		0-1-0 1 0.3 1	0-4-0 4 1.3 4		
CO YE					0-8-1 9 3 8	0-2-1 3 1 2	0		0-2-1 3 1 2	0-4-1 5 1.7 4		
AM RO					0-4-5 9 3 5	0-1-1 2 0.7 1	0-1-2 3 1 2		0-2-3 5 1.7 3	0-3-4 7 2.3 4	0-0-1 1 0.3 1	
FI SP					0-1-0 1 0.3 1	0-1-0 1 0.3 1	0		0-1-0 1 0.3 1	0-1-0 1 0.3 1	0	
YS FL					0-3-0 3 1 3	0	0-1-0 1 0.3 1		0-1-0 1 0.3 1	0-3-0 3 1 3	0	0-1-0 1 0.3 1

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MH Date 145 Yr. 79 Time 0924 to 0944 Temp. 21 Cloud 2
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover 2
 Band 1 Plot AA94 Visit 1 Area Isola- Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

P. PHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
CA TB	+	+		-	5	2			2	4		
HO WA	+	+			2	1			1	2		
BH- coll var	+	+	+	+	migrant							
OV EN	+	+	+	+	4	1			1	4		
HO TH	+	+		+	3	1			1	3		
RB VO	-		-		2	1			1	2		
RE VF	+	+	+	+	6	2			2	4		
CO CA	-	=	-		4	2			2	3		
HO RE imm	+	+	+	+	migrant (?)							
BL CA	-				1	1			1	1		
IM OH		+	+		2	1			1	2		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's MH Date 158 Yr. 79 Time 0633 to 0653 Temp. 69 Cloud 2
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) 16/17 cover
 Id 2 Plot AA74 Visit 2 Area Isola- Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

PHASE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
JW BU	x	x	x	x	5	2			2	4		
EA PE	x	x	x	x	4	1			1	4		
CA SI	x	x	x	x	4	1			1	4		
CA TB	x				1	1	1		1	1		
YE LV	x	x	x	x	8	2	1		2	4		
SO SI	x	x	x	x	4	1			1	4		
AM RO	-	x		x	4	1	1		2	3		
FJ SP	x				1	1			1	1		
RE VI	x	x	x	x	4	1			1	4		
CO FL	-	-		⊖	3		1		1	3		1
OU E		x			1	1			1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET) page 2

Observer's initials 1/2 Date (Julian) 3/4/5 Yr. 6/7 Time (start) 8/9/10/11 to 12/13/14/15 Temp. (°C.) 16/17 Cloud cover
 and Plot No. AA94 Visit No. 29 Area (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

P. PHA DE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing- adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <50
	1	2	3	4								
WB TH		x	x		2	1			1	2		
RS TO		x	x		2	1			1	2		
BO BW		x			1	1			1	1		
HO SP		-	=	=	5		2		2	3		
CA RD		-	x	x	3	1			1	3		
PE VA			x		1	1			1	1		
AM CR				v				1	1			
BL JA			-	-	2		1		1	2		
CO LR			-		1		1		1	1		
TH TS			x	x	2	1			1	2		
DO WO				-	1		1		1	1		

X=singing males; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

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Observer's MH Date 169 Yr. 79 Time 0900 to 0920 Temp. ⁶⁹ 16/17 Cloud 2
 initials. 1/2 (Julian) 3/4/5 6/7 (start) 8/9/10/11 12/13/14/15 (°C.) cover

id 3 Plot AA94 Visit 3 Area Isola- Border
22 No. 26/27/28 No. 29 (ha) 30/31/32 tion 35/36 Type 37/38/39/40

PHASE	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing. adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
TH TZ	x	x	x	x	4	1			1	4		
CO CH	-		x-	=	5	1	1		2	3		
AM CF			v	v				2	2			
CA TB	x	x		x	3	1			1	3		
HO WA	x	x	x	x	4	1			1	4		
SO SF	x	x	x	x	4	1			1	4		
AM RO	+ -	x + -	x	x	8	1	2		3	4	1	
CA RO	x	x	x	x	4	1			1	4		
MA MB	v							1	1			
BL JA		=	-	-	4		2		2	3		
IN BU				x	2	2			2	2		

X=singing males; -=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)
 sheet # 1 of 2

observer's MH Date 3/4/5 Yr. 79 Time (start) 8/9/10/11 to 12/13/14/15 Temp. ($^{\circ}$ C.) 16/17 Cloud cover

band 22 Plot AA75 Visit 29 Area 2 (ha) 30/31/32 Isolation 35/36 Border Type 37/38/39/40

P. PHA IDE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adult <5
	1	2	3	4								
WD TH					4-2-3 9 3 4	1-1-2 4 1.3 2	0	0	1-1-2 4 1.3 2	4-2-3 9 3 4	0	0
CO GR					0-12-29 40 13.3 28	0	0-4-10 14 4.7 10	1-0-0 1 0.3 1	1-4-10 15 5 10	0-4-4 8 2.7 4	0-1-2 3 1 2	
RS TO					1-4-0 5 1.7 4	1-1-0 2 0.7 1	0	0	1-1-0 2 0.7 1	1-4-0 5 1.7 4	0	
CH SW					0	0	0	1-0-0 1 0.3 1	1-0-0 1 0.3 1	0		
CA WR					3-0-1 4 1.3 3	1-0-0 1 0.3 1	0-0-1 1 0.3 1	0	1-0-1 2 0.7 1	3-0-1 4 1.3 3		
AM RD					4-2-4 10 3.3 4	1-0-1 2 0.7 1	0-1-1 2 0.7 1	0	1-1-2 4 1.3 2	4-2-3 9 3 4		
CO CR					0	0	0	1-2-0 3 1 2	1-2-0 3 1 2	0		
TH TI					1-4-0 5 1.7 4	1-1-0 2 0.7 1	0	0	1-1-0 2 0.7 1	1-4-0 5 1.7 4		
CA RD					1-0-3 4 1.3 3	1-0-0 1 0.3 1	0-0-2 2 0.7 2	0	1-0-2 3 1 2	1-0-2 3 1 2		
IN BU					0-6-0 6 2 6	0-2-0 2 0.7 2	0	0	0-2-0 2 0.7 2	0-3-0 3 1 3		
HO SP					0-3-1 4 1.3 3	0	0-1-1 2 0.7 1	0	0-1-1 2 0.7 1	0-3-1 4 1.3 3		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET)

Observer's initials MA Date 145 Yr. 79 Time 0558 to 0618 Temp. 17 Cloud 2
 (Julian) 3/4/5 (start) 8/9/10/11 (°C.) 16/17 cover 2

Band 1 Plot A95 Visit 1 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
22 No. 26/27/28 No. 29 (ha)

P. PHA CODE	5-minute interval				49-50 Σ 5-min interv.	51-52 Σ sing. males	53-54 Σ non- sing. adults	55-56 Σ adult fly- overs	57-58 Σ all adults	59 F	60-61 Σ immat- ures	62-63 Σ adults <50'
	1	2	3	4								
Wo Th	+	+	+	+	4	1			1	4		
Co b	v							1	1			
RS 70	+				1	1			1	1		
Ch Su	v							1	1			
BP WA	+				migrant							
Ca WV	+	+	+		3	1			1	3		
Am Ro	+	+	+	+	4	1			1	4		
Am Cr		-	-	-	3		1 →		1	3		
Tu Ti				+	1	1			1	1		
ICA AD				+	1	1			1	1		

X=singing male; --=non-singing ad.; +=immature; V=flyover (CIRCLE BIRDS SEEN WITHIN 50 FEET) page 1

Observer's MH Date 158 Yr. 79 Time 0948 to 1008 Temp. 76
 initials. 1/2 (Julian) 3/4/5 (start) 8/9/10/11 (12/13/14/15) (16/17) Cloud 2
 cover

Plot AA95 Visit 2 Area 30/31/32 Isolation 35/36 Border 37/38/39/40
 No. 26/27/28 No. 29 (ha) Type noisy!

PHAS	5-minute interval				49-50	51-52	53-54	55-56	57-58	59	60-61	62-63
	1	2	3	4	Σ 5-min interv.	Σ sing. males	Σ non- sing- adults	Σ adult fly- overs	Σ all adults	F	Σ immat- ures	Σ adult <50
CO GR	---	-+	--	=+	14		4		4	4	1	
JM BA	x		x	x	6	2			2	3		
HO SP	-		-	-	3		1		1	3		
BL JA	-			-	3		2		2	3		
CO PL	-				1		1		1	1		
AM RO	-			-	2		1		1	2		
TR TI	-	---			4	1			1	4		
AM CR	-				3		2 →		2	2		
RS TO	x	x	x	x	4	1			1	4		
MO Ch	x	x	x		3	1			1	3		
DO LO					1		1		1	1		

