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# The BULLETIN... Chapel Hill Bird Club October 2009

http://chbc.carolinanature.com

(Late Publication due to illness)

Vol. 36 No. 7

To:

>Meeting: Monday, October 26, 2009 <

**When/Where:** 7:15 PM/refreshments; 7:30/Meeting The lounge, Olin T. Binkley Baptist Church, corner of Hwy. 15-501 bypass and Willow Dr., behind University Mall, Chapel Hill.

Who/What: Dr. Robert O. Bierregaard, of UNC

Charlotte. Rob will be speaking on:

"Satellite Telemetry Studies of Osprey Migration and Ecology."

Rob started studying birds of prey on Martha's Vineyard in 1969 under Gus Ben David, then director of Mass Audubon's Felix Neck Wildlife Sanctuary. At that time, there were just 2 osprey nests on the island. This number grew to over 70 pairs by 1992. Although much is known about Ospreys on their breeding grounds, the use of satellite tracking of juvenile Osprey has allowed wonderful insights on their migration, finding of wintering areas and return home. Please join us for a fascinating program.

**Saturday Field Trips** 

Saturday field trips are led by Doug Shadwick Trips depart from Glen Lennox Shopping Center Parking lot off HWY 54 promptly at 7:30 most Saturday mornings. All skills are welcome. Trips are usually over by noon. Dress for the weather and for walking. For further details, call Doug at 942-0479.

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Summary of Dr. Stuart Pimm's talk on

"Extinctions: What Can we Do to Prevent Them?" at the September 2009 meeting

by Karen Piplani

Dr. Stuart Pimm came to North Carolina seven years ago, to accept the Sarah Duke professorship of Conservation and Environmental Studies at the Nicholas School at Duke University. His interest in this evening's topic started in Hawai'i in 1978. He had gone there on a trip and intended to do lots of bird-watching. He became aware that many species no longer existed or were becoming extinct, almost before his eyes. (Those of you who heard Dr. Doug Pratt's fascinating talk in January 2009, "From Triumph to Tragedy in Kauai's Lost World", will be familiar with much of this information.) We know birds better than most species, and know that 43 species have gone extinct in Hawai'i since the arrival of man about 500 A.D. Using statistical analysis, we know that there are probably another 40 species missing. In the Indonesian Islands, from 1000-2,000 species of birds have become extinct.

Of course, there are many causes of extinction, such as habitat destruction, pollution, over-harvesting, habitat fragmentation, and introduced species.

However, Dr. Pimm states that the major cause of global extinctions is destruction of tropical forest. Species with tiny ranges are especially vulnerable. There are many important programs to protect tropical forest lands, including the formation of state and national forests, and the purchase of land by conservancy groups. Efforts for pollution abatement and prevention of global warming will help as well, but often these efforts require lots of time and money lobbying, or big amounts of money to set aside a particular area. Time is not on our side, and we need to concentrate on programs that will help ensure survival of rare species right now.

Stuart has founded an all-volunteer organization caller Saving Species, which may be found at www.savingspecies.org. This group is an umbrella organization which focuses attention on land purchase projects which may be critical in saving rare species. Organizations with projects they believe are important may apply for support by the group. The organization provides information to show the areas in question on Google Earth, and estimates the amount of carbon that may be saved by the purchase and nurture of specific areas which have a high potential to directly prevent extinctions. The organization provides its imprimatur after consulting a variety of noted experts in the appropriate fields. These experts serve in the organization without pay. Having one place where one may find many critical projects, and whose efficacy has been certified, may help focus interest on the most essential projects.

For instance, one was a recent suit sponsored by the Center for Biological Diversity, and the Florida Biodiversity Project to strike down a Bush-era decision that decreased the protected area for the Cape Sable seaside Sparrow in the Everglades. Reversal of that decision could result in the protection of 70,000 acres of crucial habitat.

In another program mentioned by Dr. Pimm, a Catholic mission in the Brazilian rain forest provided GPS devices to indigenous teenagers, and taught them how to use them. The GPS monitors gave the Indians a way to track where they hunted and fished, and eventually to prove to encroaching farmers or cattlemen that they were on native land. (There have since been attacks on the Catholic missionaries in charge of this mission, and some have been killed.)

Dr. Pimm mentioned that in one instance, when a local warlord was being paid by poachers to overlook illegal harvesting of trees, Dr. Pimm did not hesitate to use unorthodox methods. He paid "protection money" to the warlord to prevent logging. It did stop the logging.

One invaluable tool has been the use of mapping by GPS of areas seen on Google earth. This tool allows one to map an area with a certain type of vegetation, and then overlay a map indicating the probable location we think a certain species is, and then overlay a map showing ownership of parcels of land in the area. This will allow the researcher to pick areas of prime interest, and to identify those areas which may be enhanced by the purchase of a corridor between them, or areas whose purchase will enlarge an existing protected area.

This technique may also be useful, for instance, for birds that prefer a specific altitude. With the overlay of appropriate forestation, and altitude maps, one might identify 2 or 3 isolated breeding areas which might be

joined by the fortuitous purchase and protection of certain land areas.

The Golden Lion Tamarin project in Brazil is one example of the sort of project which may be undertaken successfully. This group has been working on conserving and adding to the protected area of the Atlantic Forest, thus protecting many species, the most famous of which is the Golden Lion Tamarin. This species is the only primate to have temporarily escaped extinction, and was successfully reintroduced into the wild. Further reintroduction has been halted because of the lack of additional forest needed for its reintroduction. The aim of this project is to purchase land adjacent to the União Biological Reserve (REBIO União), an already existing federal protected area in the State of Rio de Janeiro, Brazil.

Another of the projects being pursued is the Greater Bamboo Lemur Conservation Project, which is focusing on the purchase of land in Madagascar. The Greater Bamboo Lemur Conservation Project is an initiative of the Institute for the Conservation of Tropical Environments (ICTE). The ICTE seeks funds to purchase 8,100 hectares (20,015 acres) of degraded agricultural land adjacent to the Ranomafana-Andringitra corridor, a protected area already existing in the southeastern region of Madagascar. Currently fewer than 75 Greater Bamboo Lemur individuals exist, and a recent total count found 60. Compared to their historic distribution, the current range is approximately 1 to 4 % of its former range — most of which is not suitable habitat due to their dietary specialization on bamboo and microhabitat preferences. Purchase of land in Madagascar would link 2 isolated populations, allow the re-growth of forest, and allow those populations to connect with other populations in nearby forest. Saving Species.org, "enthusiastically supports" this purchase. They consider it to have a very high potential to save many species on the brink of extinction. Moreover, it is estimated that this purchase will "soak up" carbon equivalent to that emitted by a minimum of 2,400 average Americans and do so for about 60 years.

In 2001 Stuart published a book, "The World According to Pimm: A Scientist Audits the Earth", to help make some of the concepts related to conservation a little easier to understand. He notes that he was trying to cover some of the topics in his book that were covered by Peter Vitousek, Paul and Anne Erlich, and Pamela Matson, in their important 1986 article in Bioscience entitled "Human Appropriation of the Products of Photosynthesis." That paper took account of our effect on the entire planet Earth, not just a small part of it.

Dr. Pimm encourages us to check out the Saving Species website, and to consider donations to these projects which will have such a profound impact. There are countless

ways to save energy and reduce our carbon footprint, and to lobby for tropical forest preservation. These efforts should be pursued, but often they require tremendous changes in governmental policy, in the way we manufacture goods, in population growth, and in consumption patterns. The likelihood of seeing quick change in these areas is small. We can influence the survival of rare species **now** by the judicious purchase and nurturing of small areas of land in critical tropical forest areas. The SavingSpecies website lists many projects that will really make a difference. If we wait until we have control of larger issues, we may lose a third or more of all life on Earth. Let's save species now before it's too late.

## **2009 Chapel Hill Spring Bird Count** — Compiler's Comments

by Will Cook

The Chapel Hill spring count on May 2 was a little dull, below average in both species and total individuals, with 120 species and 9110 individual birds (10-year average 124 species, 11276 birds). Observer effort was low at 127 party-hours (average 160.8) since several regular counters couldn't make it this year, but the number of birds per party-hour was normal (72, average 70).

Despite the slow overall count, a few remarkable birds were found, topped by the Lawrence's Warbler (the rare backcrossed Golden-winged x Blue-winged Warbler hybrid) that Carol Williamson found at Finley Golf Course, near Mason Farm. Not only is this hybrid a first report for the count, but it's also a first report for Orange County and one that only a few birders in the state have ever seen. Other rarities included an American Bittern (first since 1980) spotted in flight by Derb Carter and Ricky Davis as they were starting their state big day at the edge of the

count circle on Dairyland Road, a couple of Yellow-crowned Night-Herons (Mike Schultz, Betty King's party), a Semipalmated Plover (Brian Bockhahn) at the Farrington Road wastewater plant, a Greater Yellowlegs at the pond at Mason Farm (Will Cook's party), two White-crowned Sparrows (Will Cook and Carol Williamson) seen out of typical habitat in

suburban Chapel Hill, and a good number of lingering Pine Siskins (several observers).

We set just **two record highs** this year: Bald Eagle and Great Crested Flycatcher. The Bald Eagle count is truly remarkable, with our estimated 54 (23 adults, 31 immatures) doubling the previous high count of 27, set two years before. Ginger Travis, covering the Morgan Creek arm of the lake by canoe, reported seeing 10 immatures

circling at one time — they must have had a great nesting season last year! The count of 110 Great Cresteds is just slightly higher than the count of 108 in 2006. They've been steadily increasing for the past decade, perhaps because they are taking advantage of suburban bird houses. We also had unusually high numbers of Pine Siskins: 14 is the highest count since 1988.

Low counts were much more numerous. Not unexpectedly, we missed Northern Bobwhite for the fourth year in a row. Before this series of misses, they had been missed only once in the 50+ year history of the count. They definitely seem to be on the way out locally. We set one record low, again not unexpected but continuing a long trend: Field Sparrow (10, previous low 12 in 2004). Other unusually scare species were Mallard (lowest since 1996), Spotted Sandpiper (1973), Whippoor-will

(1996), Hairy Woodpecker (1996), Northern Flicker (1974), Eastern Kingbird (1997), Eastern Bluebird (1997), Northern Mockingbird (1994), Pine Warbler (1996), and Common Grackle (1974). Grackle numbers have been slowly but steadily declining since their peak in the early 1980s.

**Team honors**: This year Will Cook's party of seven birders, covering Mason Farm Biological Reserve, got the highest species count, with 89, while Tom Driscoll's group of six counted the most individual birds, 1269.

Weather in brief: low 66 F, high 84 F; wind SW 5-15 mph; mostly cloudy with a few sprinkles of rain.

Thanks to all of our 46 field counters and 7 feeder watchers!

Will Cook - Durham, NC http://www.carolinanature.com

#### **Chapel Hill Bird Club Officers**

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### 2009 TRIANGLE AREA SPRING BIRD COUNT TOTALS

4/26 4/28 5/9 5/3 5/2 — Chapel Hill Observer Party Number —

Species	Dur	FL	WC	JL	СН	overlap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
GOOSE, Canada	234	95	218	97	242	l '		8		31				2	4	2		30				11		17	2	20	1
SWAN, Mute					1				1																		
DUCK, Wood	32	21	6	33	62			3							2				4	10		6	7	16		4	10
American Black	2																										
MALLARD	10	29	82	40	50				3	2	1					13		3	8	4			10		3		3
MERGANSER, Hooded	3																										
TURKEY, Wild	10	5		19	1																					1	
BOBWHITE, Northern			1	1																							
LOON, Common			1																								
GREBE, Pied-billed	1																										
CORMORANT, Double-crested	355	117	15	295	172	40			1									3	2	1		72	50	80	2		1
BITTERN, American					1		1																				
HERON, Great Blue	61	51	26	185	190	29			1		2			4	4	2	1	9	4	22		8	37	120			5
EGRET, Great	1		1		2						1							1									
HERON, Green	8		11	8	10				1		1				3		2	1							1	1	
NIGHT-HERON, Black-crowned	1																										
NIGHT-HERON, Yellow-crowned	ı				2						1	1															
VULTURE, Black	16	26	1	44	52			7	1	5	1				7	2						1		1	1	13	13
Turkey	63	68	38	225	130			4	14	1	2		3	2	10	6	6	5	2	9		7	5	8	5	14	27
OSPREY	8	26	2	45	12	1												1	1	5			2	3			1
EAGLE, Bald adult: 23 imm: 31	5	16	4	23	54	11					1					1		3	2	1		6	23	27			1
HAWK, Sharp-shinned		1		2																							
Cooper's		2	2	4											1		1					1				1	
Red-shouldered	13	7	14	28	19				4		1	1	1			1	1		1	1						2	6
Broad-winged				3	4				3						1												
Red-tailed	14	7	14	21	21			1	2	4			1		1	1						1		5	1	2	2
KESTREL, American	1		1																								
COOT, American				10																							
PLOVER, Semipalmated					1														1								
KILLDEER	21	19	9	38	36					2	12			2	2			3	7			1				5	2
YELLOWLEGS, Greater					1										1												
YELLOWLEGS, Lesser	1		1																								
SANDPIPER, Spotted	7	4	18	16	2																	1	1				
Solitary	18	3	6	13	13	6					1			6	6	1		1						2			2
Least				4	3										2				1								
SNIPE, Wilson's	3																										
WOODCOCK, American	1																										
GULL, Bonaparte's				2																							
Ring-billed	11	29	1	145	42													7	3	2		7	2	21			
Laughing		5		1																							
TERN, Caspian		1		1																							
PIGEON, Rock	29	4	48	21	24				17						2		2	2							1		
DOVE, Mourning	140	116	103	222	247			33	33	7	9	1	3	14	15	16	5	8	8	13	5	6	1	28	9	15	18
CUCKOO, Yellow-billed	26	3	5	20	8							2			2				1		1	1					1
Black-billed			1																							$\neg$	
OWL, Eastern Screech-	1			2																						$\neg$	
Great Horned	2	1			2																			2		$\neg$	
Barred	12	5	2	10	14			1	1				1		2				4		1			1		2	1
NIGHTHAWK, Common			3			l	l																			$\neg$	
CHUCK-WILL'S-WIDOW		2		5			l																			$\neg$	
WHIP-POOR-WILL	1	7		27	5																	5				$\neg$	
SWIFT, Chimney	24	19	73	65	137			4	35	9	8		6		14	11	18			6				5	9	4	8
HUMMINGBIRD, Ruby-throated	21	7	9	20				2				3			8	1			2		3	2		1		$\neg$	9
KINGFISHER, Belted	9	4	8	9							2	_			1					1						$\neg$	1
WOODPECKER, Red-headed	20	35		30	18		l	1		2	1				2				3			3	2	3		$\neg$	1
Red-bellied	109	58		130				10	23	7	11	2	2	7	15	11	7		8	8	7	7	1	11	6	23	7
WOODPECKER, Downy	28	6		33		l	l	3			1	1			5	2	1	1	3	2				9	3	3	2
Hairy	7	4	4	7	8	l	1				2				1				1		1	1				1	1
"Yellow-shafted" FLICKER	11	10	8	17		l	l				2				2	2							1	1	1	$\neg$	2
Pileated	11	11		30		l	l	3	1						2				2		3	11		1	1	6	1
WOOD-PEWEE, Eastern	2	8	6	38		<b>-</b>	H	3						3	1	1			-	1		2		2	1	3	1
FLYCATCHER, Acadian	24	21	18				1	5		3	3	1	2	_	5	1	3		16	1	4	$\overline{}$			1	7	1
PHOEBE, Eastern	37	14		63	56	-	1	1	3	4	1	1	1	1	3	1	10	3		3	2			8	1	9	2
FLYCATCHER, Great Crested	46	60		133	110	$\vdash$	$\vdash$	2	_		11	2		1	7	5	2	3	10	7		$\overline{}$	10	11	2	8	1
KINGBIRD, Eastern	0	18		82	27		1	1	10	2	2			1	2	ر	- 4	1	10	4	-	4	6	11		1	1
SHRIKE, Loggerhead	,	10	J-30	02	- 21		1	<u> </u>	$\vdash$					- 1			$\vdash$	1	<del>  -</del>	4		-4	U	1		- 1	-
VIREO, White-eyed	84	20	1	24	35	$\vdash$	$\vdash$	2	$\vdash$	1		$\vdash$	1		15		2		$\vdash$	4		1	_	-	$\vdash$	8	1
Yellow-throated	13	13		16		$\vdash$	$\vdash$	1		1		$\vdash$	1		2		+4		2	-4		1			$\vdash$	4	1
Blue-headed	13	4	<b>├</b>	3		$\vdash$	$\vdash$	1									$\vdash$		1	2	1	$\vdash$					-
	12	-	$\vdash$		├─"	$\vdash$	$\vdash$										$\vdash$		1	-	1	$\vdash$				$\rightarrow$	
Warbling				1	l	l	1																				

### 2009 TRIANGLE AREA SPRING BIRD COUNT TOTALS

4/26 4/28 5/9 5/3 5/2 — Chapel Hill Observer Party Number —

Species	Dur	FL	WC	JL	СН	overlap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Philadelphia			1																								
Red-eyed	212	163	65	274	264			9	23			5	3		28	6			26	11	11	16		12	10	39	9
JAY, Blue	138	60	54	125	163			9	24				2	12	8	15		3	7	5	4			7	7	19	6
CROW, American	122	133	92	345	264			18	28			5	1.0	14	14	6	7	11	5	32	5	9	5	24	10	22	18
Fish MARTIN, Purple	37 54	24 16	26 38	31 39	50 57			1	6	2	6		10	2	3	4			18	12	1			12		3	20
SWALLOW, Tree	12	33	2	70	11										3	1			2	2		1	4		1		20
N. Rough-winged	14	33	20	37	70	<u> </u>			11	6	6			14	3	2	4	-	2	6		1	-		2	9	5
Bank	17	33	20	2	70	$\vdash$	$\vdash$		11					17			-	$\rightarrow$			_					-	
Cliff	28	31	30	142	3													3									
Barn	46	32	88	82	77				5		3		8		2		30	2	12						11		4
CHICKADEE, Carolina	133	96	77	145	225			7	52	12	14	6	4	5	16	11		1	5	13	10	7	5	6	10	17	24
TITMOUSE, Tufted	209	138	63	272	319			9	40	18	36	11	2	2	26	10	3	2	29	9	9	16	13	23	15	31	15
NUTHATCH, White-breasted	15	15	11	23	38				5	1	2	2	1	1	1	1	7		1		1	2	1	1	2	4	5
Brown-headed	24	37	24	59	78			2	12		8			1	3	6	5		4	6	5	6	3	8		4	5
WREN, Carolina	198	96	118	229	346			12	60		-	7	-	6	50	22	8		14	5	8		_	17	5	30	16
House	16	2	4	7	36				10		2		1		9	2			1			2				1	8
KINGLET, Ruby-crowned	14	1			7						5				1						1						
GNATCATCHER, Blue-gray	408	155	75	335	339			12	41				4	2	54	2			29	33	12	32	4		5	22	8
BLUEBIRD, Eastern	109	80	80	185	149	<u> </u>	$\vdash$	10	22	-	8	1	2	l	11	13	3	7	4	2	4	2	4	8	3	17	18
VEERY THRUSH, Swainson's	2	1	12	14	6 17		$\vdash$	1	8				1					-	4			2				1	
Grav-cheeked	1		12	14	1/	-	$\vdash$	$\vdash$	ð	2			1			-		-	4								
Hermit	3			1		$\vdash$	$\vdash$									$\dashv$	-	-							-		
Wood	45	16	14	66	90	-		5	7	1	4		5		8	3			12		10	4			6	18	7
ROBIN, American	118	50	102	72	257	<del>                                     </del>	$\vdash$	8	39			5	8	21	37	- 1	5	4	6		10	1		6	11	11	54
CATBIRD, Gray	53	13	21	40	109	1		2	45			- 3	3	8	12		2	7	1	5	1	4			3	1	15
MOCKINGBIRD, Northern	64	65	40	142	141			10	17				2	12	7	11	3	3	-	1	2	2		11	11	13	16
THRASHER, Brown	20	16	30	56	66			3	5		4		3		8	5	3	1	1		2	1		2	6	16	5
STARLING, European	157	61	78	87	160			8	4		26		1	22	20	18	2	5	3					10	5	10	15
PIPIT, American			5																								
WAXWING, Cedar	31	60	98	94	119			6	7		16		6		30	10	1		1	1					16		25
WARBLER, Blue-winged	2																										
"Lawrence's"					1									1													
Nashville		1																									
N. Parula	134	57	31	99	143			5	15	4	12	5	4	2	12	2	3		13	11	9	9		8	8	16	5
Yellow		9	1	7	3						1		2														
Chestnut-sided			2	2																							
Magnolia		1	5																								
Cape May				1																							
Black-throated Blue	17	13	31	45	90			6	34			1	6	1	3	2	3		6	3	5	7		1	1	1	1
Yellow-rumped (Myrtle)	218	55	4	56	50 2	-		4	28		5		3	I	2							I	3	2	1		
Black-throated Green Yellow-throated	62	34	1	90	23			2	4		2	1			2				2	1		4	2		1	1	1
Pine Pine	69	125	27	218	124	-		2 8	6		6	5	1	4	5	6	3		3 17		7	13	3		4	11	2
Prairie	36	47	21	65	33			1	0	5	0	3	1	2	2	0	1	$\rightarrow$	1 /			15	3	4	4	3	
Palm	20	4/	1	03	) 33	$\vdash$	$\vdash$	1		ر						-	1					13		-		ر	
			- 1	1	1		$\vdash$								1			$\dashv$									
Blackpoll Black-and-white	13	8	5	40	32				11	2	4	2	1		1			-	2		3	4					2
REDSTART, American	12	٥	10	40	43	-	$\vdash$	4	11		4		2		22	1	-	-	3		1						2
WARBLER, Prothonotary	25	13	2	48		$\vdash$	$\vdash$	7		$\vdash$	2	1			3	1	$\dashv$	$\dashv$	10	-	1	4		4	$\dashv$		1
With BEER, From Solution Worm-eating		1.5	1	70	cw	l	$\vdash$	cw			-	- 1						$\dashv$	10			-	- 1				- 1
OVENBIRD	73	54	20	145	134	l		13	12	8		4	2		2	2			23	3	9	14	1	7	6	20	8
WATERTHRUSH, Northern	3	1	1	1	6				1						1	$\neg$						1					1
Louisiana	11	4	9	9	17			3	3				1								4					5	1
WARBLER, Kentucky	2	1		3	6					1									2		1	2					
YELLOWTHROAT, Common	148	39	22	110	103			4					1	1	30	2	1		4	-	2				1	8	5
WARBLER, Hooded	32	35	3	52	52			6	4	8						1			5	1	3				4	13	1
CHAT, Yellow-breasted	38	15		53	33			2							10						1			4		5	
TANAGER, Summer	49	70	18	158	130			4	3		6		4	2	12	8	2		12	1	7	18			1	15	7
Scarlet	12	14	9	47	50	L	ш	10	4			1	1		1				8	2	7	1	3		2	10	
TOWHEE, Eastern	130	93	38	103	231	<u> </u>	$\square$	14	43			5	5	6	25	7	-	2	5	8		9			14	14	
SPARROW, Chipping	94	84	37	178	151	<u> </u>	$\square$	17	16	10	11	2		2	3	13	1	1	4			3		7	3	25	33
Field	30	16	2	20	10	<b> </b>	$\square$														1	7		2			
Savannah	3	6	2	3	1	-				1																	
Grasshopper	31		l		50 50	$\vdash$	2			,	12			1	4	2	_	-			_				2		10
Song Swamp	28			4	50	$\vdash$	$\vdash$		7	3	12			1	2	3	-	-			-	1			2		18
Swamp White-throated	28 171	28		8	36		$\vdash$	2	3	$\vdash$			10		8	_		$\dashv$	1			1			1	3	2
White-throated White-crowned	1/1	28		8	20	<del>                                     </del>	$\vdash$		3	٥	2		10	1	8			-	1			1			1	3	2
vv inte-ci owneu						ı	ш			Ш				1	1												

### 2009 TRIANGLE AREA SPRING BIRD COUNT TOTALS

4/26 4/28 5/9 5/3 5/2 — Chapel Hill Observer Party Number —

Dur FL WC JL CH overlap 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

Species	Dur	FL	WC	JL		overlap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		17	18	19	20	21
CARDINAL, Northern	363	204	163	342	679			20	172	33	59	15	6	17	66	36	14	6	26	25	9	16	6	43	19	49	42
GROSBEAK, Rose-breasted			1	5	3										1						2				П		
Blue	21	21	16	58	31			1	1					1	3	2	2		3	3		7		6	П	2	
BUNTING, Indigo	74	41	32	210	123			4	2	9	6				34	3	4		10	12	2	13	2	18	$\Box$	4	
BOBOLINK			2	6																					П		
BLACKBIRD, Red-winged	76	30	29	62	85					3	6			18	2		2		1	24		3	2	14	1	4	5
MEADOWLARK, Eastern	39	18	19	37	6																				3	2	1
GRACKLE, Common	208	129	108	317	157			3	8	10	9		4	4	24	13	3	5	4	4		4	13	24	2	4	19
COWBIRD, Brown-headed	294	90	26	136	126			6	19	9	7	2	4		10	7			7	5	2	10	1	6	6	10	15
ORIOLE, Orchard	25	12	7	44	18										2	1	2		3			6	1		$\Box$	3	
Baltimore				1																					$\Box$	$\neg$	
FINCH, House	48	21	43	54	190			4	58	2	23	5	3	7	10	6		1	9			2		8	7	12	33
SISKIN, Pine	3	9			14				1										2						$\Box$	9	2
GOLDFINCH, American	157	93	76	241	312			19	77	3	29	12	6	4	24	8	5		6	26	10	6	17	15	3	14	28
SPARROW, House	59	19	15	43	65			12	22		5		10		4			1	2						6		3
· ·																									$\Box$		
TOTAL SPECIES 155	119	110	114	124	120		2	64	71	60	69	34	51	46	89	56	46	34	78	53	48	76	43	60	58	70	78
TOTAL INDIVIDUALS	6679	3923	3065	8490	9110	87	3	401	1269	406	649	141	172	243	835	350	212	140	482	401	208	539	285	780	284	708	689
																									$\Box$		
Number of Groups		11		24	21		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of Participants	19	19	27	49	46		2	2	6	2	2	1	1	1	7	3	1	2	1	1	1	1	2	2	1	2	5
-																											
Start					545			650	605	605	615	800	1000	715	700	720	700	700	615	700	630	545	750		700	728	600
End					1930			1400	1445	1915	1445	1030	1400	1115	1930	1600	1030	1100	1100	1130	1700	1330	1530		1430		1430
																										$\neg$	
Party Hours: Total	71.8	161.9	49	141.25	127		1.7	5.5	10.5	9.3	8	2.5	4	4	8.5	8.5	3	4	4.75	4.5	3.75	7.5	7.5	7.5	6.5	10.5	- 5
Party Hours: On Foot	63.75	53.3	46	101.6	94		1.25	4.5	10	9	3	2.5	4	4	8	5		3	4.5	4.5	3	7.25		6.5	3	3	5
Party Hours: By Car	8.05	108.6	3	26.65	25.5		0.45	1	0.5	0.3	5				0.5	3.5		1	0.25		0.75	0.25		1	3.5	7.5	
Party Hours: By Bicycle					0																				$\Box$	$\neg$	
Party Hours: By Boat				13	7.5																		7.5		$\Box$	$\neg$	
																									$\Box$	$\neg$	
Party Miles: Total	121.5	170.5	95	324.6	272		3.2	10.5	18	8.8	17	3	3	4	10	28	3	14.5	7	2.5	3	10	7	6.5	48	46	19
Party Miles: On Foot	54.5	55.25	44	74.1	89		1.2	2.5	10	7.8	2	3	3	4	5	4	3	1.5	5	2.5	1	7		1.5	3	3	19
Party Miles: By Car	67	115.25	51	245	176		2	8	8	1	15				5	24		13	2		2	3		5	45	43	
Party Miles: By Bicycle					0						Ť														H	=	
Party Miles: By Boat				5.5	7																		7		$\neg$	$\neg$	
																									$\vdash$	$\rightarrow$	
Owling Hours	0.75	0.75	1	2.0	1																	0.25		0.5	$\vdash$	$\dashv$	0.25
Owling Miles				9	0.75																	0.5		0.5	$\neg$	$\dashv$	0.25
3																								Ť	$\vdash$	$\dashv$	
Feeder Hours	1	3			10																				-	$\dashv$	10
1 00001 110010		,			10													1							$\Box$		10

CH = Chapel Hill count 5/2/09; weather: low 66, high 84; wind SW 5-15 mph; mostly cloudy; lt rain
Dur = Durham count 4/26/09

FL = Falls Lake count 4/28/09

JL = Jordan Lake count 5/3/09

11 21 (part) Loren Hintz

Party Areas	Party Members	Party Areas	Party Members
1 1,4	Derb Carter, Ricky Davis	12 22S	Anson R. Cooke, Anson D. Cooke
2 2,7	Pam Timmons, Perry Haaland	13 22N	Brian Bockhahn
3 8,13	Tom Driscoll, Colyer Durovich, Bo Howes,	14 23, 25	Amalie Tuffin
	Laurie Kucharik, Karen & Joe Bearden	15 23-yard	Shelley Theye
4 9,10, 11, 12	David and Judy Smith	16 24N-south	Doug Shadwick
5 14,17	Betty King, Judy Teague	17 24-canoe	Ginger Travis, Lois Schultz
6 14,15 (part)	Mike Schultz	18 24S	Alan Johnston, Denny Dobbin
7 16	Alan Kneidel	19 27, 28	David Curtin
8 19	Carol Williamson	20 30	Kate Finlayson, Chris Canfield
9 20, 16 (part)	Will Cook, Carl Rothfels, Dan Runcie,	21 32	Maurice Graves, Steven Graves, David Murdock, Sam Baron, Candace Owens;
	Shawna Catlett, Carlos Perera,		Feeders: Harry & Caroline Pederson, Barbara Roth, Joan Redman,
	Mark Kosiewski, Sasha Konkel		Jerrold & Joan Walecka, Lew Miles
10 21	Harriet Sato, Courtney Clapp, Hunter Pendle	eton	