

The Bulletin

Chapel Hill Bird Club

January 2013

<http://chbc.carolinanature.com>

Volume 41

No.1

Next Meeting: Monday, 28 January

When/where: 7:15 pm refreshments;
7.30 pm meeting. The lounge, Olin T
Binkley Baptist Church, corner of
Highway 15-501 Bypass and Willow
Drive, behind University Mall, Chapel
Hill.

28 January 2013: **John Gerwin**,
Curator of Birds at the North Carolina
Museum of Natural Sciences will
describe his research on Painted
Buntings. *Painted Bunting in the
Southeast: Merging traditional
science and citizen science.*

John Gerwin is a Research Scientist
and Curator of Birds at the North
Carolina Museum of Natural
Sciences. John's research is on the
life cycles of migratory birds with a
focus on breeding biology. He is
currently studying Painted Buntings
and Black-throated Green,
Swainson's and Golden-winged
Warblers. He enjoys doing a wide
variety of public programs, including
for Special Needs and several
teenage groups. He also co-leads
trips to tropical realms. His program
this month will feature the Painted
Buntings, a bird known as "non

pareil" ("without equal"). For such a
dramatic looking bird, surprisingly
few studies have focused on it – until
recently. John will showcase
highlights from collaborative work
involving range-wide surveys, radio
telemetry, nesting biology, and a
large-scale citizen science/banding
component.

Saturday Field Trips

Trips are led by **Doug Shadwick** and
depart from Glen Lennox Shopping
Center parking lot off Highway 54
promptly at 7.30 every Saturday
morning. All skills are welcome. Trips
are usually over by noon. Dress for
the weather and for walking.
Details? Call Doug at 919 942 0479.
It's useful to call Doug the night
before in case the field trip is not
local and leaves from another
location.

How Often do Raptors Need to Eat?

Over the holidays I drove a
couple of thousand miles mostly
along interstates. I was surprised –
again – by just how many Red-
tailed Hawks sit facing highways,
presumably watching for prey. (I

suppose they sit facing the other way too, but my eye catches the bright white bellies more than it does the brown, camouflaged backs.) Of the hundreds of Red-tails I saw, I saw only one stoop for prey – in the median, and apparently successful. So I found myself wondering how often a raptor of any kind needs to eat.

It turns out that this question is not all that easy to answer. The obvious answer is, of course, it depends! Larger birds need to eat less often than smaller birds.¹ It also depends on energy expenditure – for example, whether a bird is breeding, migrating or molting. Turning to other bird families for a moment – molting seabirds don't eat until they can return to the sea, a Canada Goose sitting on eggs rarely eats until the eggs hatch, and Emperor Penguins go months without food while brooding. Raptors, on the other hand, are often fed at the nest. Birds also need more food in colder weather (penguins notwithstanding).

Other questions about raptor diet and nutrition are more readily answered. Information on the type of prey taken, how it is eaten and how much a bird needs is readily available though not often covered in field guides. Size matters; a 10½ inch Kestrel eats

less and takes smaller prey than a 22 inch Red-tail.

Information comes from bird biologists and also from rehabilitators and falconers (who provide a controlled diet for their birds), and nest observation (e.g. by web-cams). Analysis of pellets tells us what is eaten but not over what time period.

Birds can store unprocessed food in their crops (part of the esophagus) for later digestion. Food thus stored does not become nutritionally available until it has progressed through the gizzard. Large birds (like hawks) may thus go several days without eating.²

The Common Kestrel (occasionally seen in the ABA area and larger than American Kestrel) needs the equivalent of 4-8 voles a day and may cache some for later use; even a nestling may eat the equivalent of 3-4 voles a day.³ American Kestrel needs to eat 20% of its body weight per day. American Kestrel also caches food for later dining.

Red-tails sometimes cache food too, or may return to a kill over a period of several days.

Captive Red-tails eat about 4-5 ounces per day in the winter – but note that captive birds may expend less energy than wild

¹ www.birdwatchersgeneralstore.com/HawkDiet

² www.birdwatchersgeneralstore.com/HawkDiet

³ http://en.wikipedia/Common_Kestrel



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birds. Red-tails may eat prey as small as beetles and worms, but may also take prey larger than themselves such as marmots, jack rabbits or even wild hen turkeys.⁴ However, one author, who feeds captive Red-tails 3-4 white-footed mice or gophers per day, claims even a rabbit may be too large for a hawk.⁵

From this very unscientific survey of information available via Google I learned that, no, those Red-tails prowling I-40 do not need to eat every day, and a large meal may last at least a couple of days. Smaller raptors, on the other hand, like many other birds, may need to eat more often but can resort to stored food

2011 Chapel Hill (NC) Christmas Bird Count Summary

The 82nd Chapel Hill Christmas Bird Count on Monday, 26 December 2011 was exceptionally average. Both total number of species, 88, and number of individual birds, 15,949, were very close to the 10-year average numbers (88.5 and 15,137). We achieved these average numbers with fewer party-hours than normal, though (131.5, average 136), so on a birds per party-hour basis it was a great count, with 121 much higher than the average 110. Since Monday was a hunting day, the parties covering the Jordan Lake game lands had little luck with ducks (which were being shot at) and didn't spend as much time as usual in their areas for fear of being mistaken for a deer.

A few rarities were around: the Rufous Hummingbird at a feeder in Chapel Hill, banded earlier by Susan Campbell, showed up to be counted. It's the sixth for our count, all in the last 12 years. Brian Bockhahn had a couple of nice surprises at the Southwest Durham wastewater plant - a Greater Yellowlegs (our third) and a Black-and-white Warbler (our fourth). Continuing the trend over the past 5 years, Common Ravens are being seen more and more frequently. This year Derb Carter

⁴ <http://en.wikipedia.org/wiki/Red-tailed-Hawk>

⁵ www.smm.or/warnernaturecenter/animals/hawk

had two in the usual spot near the quarry on NC 54, but Kent Fiala also had one in his area for the first time. This is our fourth report of Common Raven, all since 2006. Derb also found an Orange-crowned Warbler, our fifth. A report of a pair of Northern Waterthrushes, which would be a first for the count, is awaiting confirmation by a more experienced observer. A Lincoln's Sparrow, seen near University Lake by Andrew Thornton the day before the count, is an excellent count-week bird. We've had Lincoln's Sparrow on the count just once, with 6 on the 1973 count, but this sounds fishy to me – I'd bet they were Swamp Sparrows instead.

Other nice finds on count day included 2 Wilson's Snipes (Carter, Phil Warren's team), a Blue-headed Vireo (Jeff Pippen's party), 2 Gray Catbirds (Warren and Jon Bennett), a Common Yellowthroat (Fiala), a pair of White-crowned Sparrows (Carter), and an adult male Baltimore Oriole (Julia Shields).

Considering that this year was such an average-seeming count, we set some surprising record highs for several very common species. Wood Duck (61, 53 in 1986), Red-shouldered Hawk (38, 37 in 2001), Downy Woodpecker (166, 146 in 2006), Carolina Chickadee (651, 562 in 2003), Tufted Titmouse (564, 441 in 2009), White-breasted Nuthatch (136,

128 in 2003), Brown-headed Nuthatch (163, 146 in 2006), Eastern Bluebird (477, 445 in 2006). Three other species were not records, but more than doubled their average counts: Pied-billed Grebe, Double-crested Cormorant, and Bald Eagle. Norm Budnitz and I have been wondering about the chickadees and titmice for years: Chickadees average higher on all the Triangle-area Christmas counts, while titmice are almost always higher on the local spring counts. On fall bird counts chickadees are slightly ahead of titmice. My guess is that there's a detection difference: the average observer more easily detects titmice when they're singing their distinctive peter-peter song, as they tend to do all day in early May. The various call notes are more easily missed or confused for another species.

We set no record lows and there were no big misses, but a few were at less than half of their average numbers: Killdeer, Rock Pigeon, Golden-crowned Kinglet, Ruby-crowned Kinglet, Pine Warbler, Eastern Meadowlark, Purple Finch, and House Sparrow. What is going on with Pine Warblers this winter? Our tally of 14 is the lowest since 1972 (average count 38). Pine Warblers were also scarce on the neighboring Durham and Jordan Lake counts.

Team honors: Derb Carter,

covering the Dairyland Road area, once again had the highest species count, with 63 species (1160 individuals). Thanks to a couple of decent flocks of black-birds and robins, Will Cook's Mason Farm team tallied the most individual birds, with 2503 (50 species).

Most abundant birds: American Robin (1239), White-throated Sparrow (1254), Common Grackle (879), and Dark-eyed Junco (821).

Weather: Temperature 36-53°F (both high and low near average), wind from the north at 0-10 mph, partly cloudy, no precipitation, water open. Effort: 48 observers in 21 field parties, 131.5 party hours (117.5 by foot, 14 by car) and 242.5 party miles (72.5 by foot, 190 by car), 6.45 hours and 11.75 miles owling, 11 people and 24 hours watching feeders.

Thanks to all the participants for coming out to count birds on a lovely day!

Will Cook, compiler

[see full results table on pages 6-7 of this issue of the *Bulletin*]

Future Meetings

25 February 2013: **Allen Hurlbert**, Assistant Professor of Biology, University of North Carolina, Chapel

Hill. *Understanding patterns of bird diversity.*

25 March 2013: **Michael Tove**, Chair of the state records committee. *What is a Records Committee? And why do we care?.*

April 2013: **David Smith**. President of the Chapel Hill Bird Club. *Birds (and wildlife) in Kenya.*

20 May 2013: **Norm Budnitz**, science teacher par excellence. *Birding islands in the Bering Sea*

Officers of the Chapel Hill Bird Club

Elected Officers

President: David Smith

(davidjudysmith@frontier.com)

Vice President (Durham area): Judy Smith (davidjudysmith@frontier.com)

Vice President (Chapel Hill area): Kent Fiala (kent.fiala@gmail.com)

Treasurer: Patrica Bailey (pbailey_489@yahoo.com)

Secretary: Edith Tatum (etatum@nc.rr.com)

Appointed Officers

Bird Count Supervisor/compiler:

Will Cook (cwcook@duke.edu)

Field Trip Chairman: Doug Shadwick (dougshadwick@nc.rr.com)

Bulletin Editor: Judith Fortney (jafortney1@aol.com)

Webmaster: Will Cook (cwcook@duke.edu)

2011 Triangle Area Christmas Bird Counts

— Chapel Hill Observer Party —

Species	12/17	12/18	1/1	1/4	12/26																								
	Ral	Dur	JL	Falls	CH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Canada Goose	1290	510	366	726	501	67	13	68	10	49	15	113	18		34		14	14	17				6	2	11	20	26	4	
Gtr White-fronted Goose		1			0																								
Snow Goose				1	0																								
Mute Swan	9				0																								
Wood Duck	5	119	38	6	61										1		1		58	1									
Gadwall	67		111	16	0																								
American Wigeon	61		5	1	0																								
American Black Duck		4	51	0																									
Mallard	510	92	84	501	80		6	6				13			38		8		2	6						1			
Northern Shoveler	178	92	12	20	0																								
Northern Pintail			9	0																									
Green-winged Teal	28	19	5	2	0																								
Redhead			4	0																									
Ring-necked Duck	60	29	67	48	13								13																
Greater Scaup		1			0																								
Lesser Scaup	3		6	7	0																								
Bufflehead	62	1	39	94	0																								
Common Goldeneye			1	0																									
Hooded Merganser	254	65	181	651	70	24	4					1	5		11				2		2	21							
Red-breasted Merganser			1	3	0																								
Ruddy Duck	96			11	22			1							21														
Wild Turkey		21	14	2	0																								
Common Loon	3		7	6	0																								
Pied-billed Grebe	47	8	105	43	26	1			4			1		6		2		1	1	5	5								
Horned Grebe			20	27	0																								
Double-crested Cormorant	313	20	1615	1516	260																250	9	1						
ANHINGA		1																											
Great Blue Heron (blue)	56	140	90	63	40	2	1	3		3		3	2		1	1	3		2	2	10	2	1		1		2	1	
Great Blue Heron (white)		1																											
Black Vulture	30	145	167	144	303	35	14	90		3	8	26	9		7			1	8	4	2	23	9	36	15	7	5	1	
Turkey Vulture	67	206	293	148	335	67	19	25	2	32	5	6	6		26	13	7	3	11	3	6	11	3	61	10		3	16	
Osprey			3		0																								
Bald Eagle 5 ad., 8 imm.	3	4	17	20	13										2						8	3							
Northern Harrier			1	1	0																								
Sharp-shinned Hawk	1	2	1	cw	5		1				1							1		1							1		
Cooper's Hawk	7	1	5	3	4		1					1											1					1	
<i>Accipiter</i> sp.			2		0																								
Red-shouldered Hawk	26	18	33	22	38	2		2	1	1	1	2	1		8	3	1	5			1	3	1		2	2	1	1	
Red-tailed Hawk	21	25	30	24	50	7		4	1	3	2	1	3		10	2	1	3	5	3		2		1			1	1	
American Kestrel	4	7	3	3	4	2	1												1										
Merlin			1		0																								
American Coot	37	1	376	18	0																								
Killdeer	19	190	166	53	32	2							12		4		2		2	2	8								
Greater Yellowlegs					1																								
Least Sandpiper		96			0																								
Wilson's Snipe		2	31		2	1																1							
American Woodcock	2	2	1	2	8													5				2	1						
Bonaparte's Gull		88	280	163	29																	29							
Ring-billed Gull	286	6091	50000	15609	630		15	101		3		4	4		4	12	7	10	5	20	300	17	26	16	1			85	
Herring Gull	3	223	1000	78	6										3						3								
Lesser Black-backed Gull		1	2	2	0																								
Rock Pigeon	424	74	83	73	55	9		36		6					2	2													
Mourning Dove	338	190	205	134	190	51	8	9	4	14	7				3	7	6	11	10	14		30	1	3	3	1		8	
Eastern Screech-Owl			3	5	1	1																							
Great Horned Owl	1	2	12	2	4			2																2					
Barred Owl	2	7	4	2	5	1	1	1											1				1						
Rufous Hummingbird					1													1											
Belted Kingfisher	21	20	16	24	11	1	1			1		1	3		1				2		1								
Red-headed Woodpecker	15	26	28	31	32			4				1	3		4			11	1	1		2					2	3	
Red-bellied Woodpecker	128	136	174	108	225	7	11	3	1	37	14	6	8		25	15	3	11	15	6	9	11	8	6	14	1	4	10	
Yellow-bellied Sapsucker	27	49	48	38	63	1	2	6	2	3	14	2			1	1	2	5	3	1	5				1	7		7	
Downy Woodpecker	76	14	79	61	166	5	3	5	4	24	12	2	1	1	14	7	5	11	7	9	8	9	3	3	4		1	28	
Hairy Woodpecker	15		20	17	19	1	3			3		2			1				1		2		2	1	1	1		1	
N. (Yellow-shafted) Flicker	64	121	108	61	106	6	4	4		6	2	6	5	1	13	6	2	9	6	6	4	10	2	6	5		2	1	
Pileated Woodpecker	12	23	30	20	10	1	3		1												1	2	1					1	
Eastern Phoebe	26	38	34	66	26	2	3				1	3	1		3			1	1	2	5	2			1	1			
Loggerhead Shrike	5		1		0																								
Blue-headed Vireo				1	1																								
Blue Jay	155	185	226	81	192	16	11	21		20	5		7	1	7	8	3	15	21	4	10	4	5	8	18	2	4	2	
American Crow	457	513	708	358	549	62	14	71	2	58	14	32	26	4	18	5	3	14	14	8	21	33	16	12	69	11	5	37	
Fish Crow	2			1	0																								
Common Raven				3	3		2						1																
Carolina Chickadee	294	312	421	293	651	23	39	68	4	135	36	8	18	3	57	27	6	26	70	17	12	19	23	5	10	13	13	19	
Tufted Titmouse	168	268	421	291	564	17	23	35	6	104	51	11	19	3	25	37	17	19	22	19	15	22	21	6	31	3	35	23	
Red-breasted Nuthatch	1			3	0																								
White-breasted Nuthatch	82	52	58	58	136	10	8	7	2	15	10	3	3		12	6	1	2	8	5	1	3	9	4	12			15	
Brown-headed Nuthatch	58	57	195	122	163	8	11	10	1	18	13		1		25	1	5	3	3	4	12	7	8	7	19			7	
Brown Creeper	5	16	20	24	23	1	1	3		6	1				1			2	1										

2011 Triangle Area Christmas Bird Counts

— Chapel Hill Observer Party —

Species	12/17	12/18	1/1	1/4	12/26	— Chapel Hill Observer Party —																							
	Ral	Dur	JL	Falls	CH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
House Wren	3	2			1																								
Winter Wren		29	22	25	30	2	2			3	1	2			3			8			1		5	2				1	
Golden-crowned Kinglet	35	93	139	91	81	5	3	2		3	8	1	1		13	3		1	1	12	3	9	11	1	4				
Ruby-crowned Kinglet	67	94	109	42	77	6	1	3		11	5	1	1		3	5		9	6	6	2	7	2	3	3		2	1	
Eastern Bluebird	214	188	362	266	477	43	23	74		46	25	9	19	3	17	20	36	11	30	12	9	11	13	5	39		5	27	
Hermit Thrush	17	45	33	46	53	7				8	4	2	1		1	1	1	6	1		3	2	11	1	2			2	
American Robin	148	463	217	616	1239	76	18	66	5	58	56	2	8	1	6	31	4	700	21	4	2		4	1	41	35		100	
Gray Catbird	1				2																1								
Northern Mockingbird	103	65	75	49	151	15	3	13	1	10	2	3	9		8	15	4	9	8	7	2	3		4	9	5	2	19	
Brown Thrasher	25	28	19	24	32	1		2	1	15				2				6	1		1			1				2	
European Starling	569	114	222	170	709	70	9	25	60	94			130	30	4	10	39	1	15	10	3	20		12	14	161		2	
American Pipit	1	330	60	2	185																								
Cedar Waxwing	24	102	229	403	319	42	41	25	3	32	29		27	5		2		13	4			40			16		40		
Black-and-white Warbler					1																1								
Orange-crowned Warbler					1	1																							
Common Yellowthroat					1							1																	
Palm Warbler	3		2	2	0																								
Pine Warbler	25	9	30	24	14	1	2			5	2				4														
Myrtle Warbler	294	307	115	253	421	58	4	26	2	14	11	35	5	1	46	13	13	1	15	62		19	3		17		76		
SUMMER TANAGER	1				0																								
Eastern Towhee	100	199	149	144	193	3	1	28	1	21		2	8	1	10	8	3	22	8	9	12	8	16	5	8	2	13	4	
Chipping Sparrow	251	512	310	511	373	23	6	33	1		35					4			18	100	12		38	76	2	23	2		
Field Sparrow	158	88	34	107	104	5		50		1			7		2			22		3	6		3	1			4		
VESPER SPARROW		1			0																								
Savannah Sparrow	29	37	33	27	11	5		6																					
Fox Sparrow	8	24	53	31	35		1	7			1							14	1		8		2		1				
Song Sparrow	693	827	220	374	549	18	5	81	1	13	1	25	4		127	1	12	90	8	19	12	17	9	32	6		60	8	
Swamp Sparrow	177	121	29	44	73	1		16				4			7			31			6	1	6					1	
White-throated Sparrow	895	1016	546	720	1254	28	16	185	8	202	4	23	21	3	110	42	12	255	60	55	30	87	8	30	43		12	20	
White-crowned Sparrow	3	1		2	2	2																							
Dark-eyed (Sl- col) Junco	330	386	882	842	821	28	116	147	7	66	25	20	28	2	15	38	27	15	31	68	6	11	15	28	84	3	3	38	
Northern Cardinal	300	385	336	287	525	28	14	70	17	87	7	5	8	3	20	47	26	29	33	16	14	12	7	16	25	3	9	29	
Red-winged Blackbird	40	525	1308	595	661	4		40		25					30	10		400		3	25	4	1		12	18	80	9	
Eastern Meadowlark	60	39	28	14	11	4		7																					
Rusty Blackbird	5	101	2	27	9													6		2								1	
Common Grackle	115	132	397	374	879	17					1							600		174		20			2			65	
Brown-headed Cowbird	108	3	10	1	3	3																							
Baltimore Oriole	1				1										1														
Purple Finch		1			7						6										1								
House Finch	104	72	60	66	182	23	11	10	5	32		1	8	2	30	3	3	2	7	5			1		7	1	1	30	
Pine Siskin				2	0																								
American Goldfinch	171	192	107	87	335	6	12	63		34	9	3	12		12	7	1	18	14	7	5	60	6	15	14			37	
House Sparrow	35	62	23	24	23	2				2		9			3	6				1									
TOTAL SPECIES 120	89	88	93	99	88	63	48	49	28	46	40	43	41	18	54	37	35	50	43	51	50	44	45	34	41	18	30	45	
TOTAL INDIVIDUALS	11269	17133	64494	28394	15949	1160	523	1605	155	1405	449	548	375	41	885	478	252	2503	511	703	1008	573	316	376	826	137	324	796	
Number of Field Parties			23		21	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
Number of Participants	52	30	49	31	48	1	2	2	1	4	2	1	3	0	2	3	2	6	3	1	5	1	1	1	2	0	1	4	
Party Hours: Total	87	96.5	130.9	98	131.5	12	10	9	3.5	8.5	5	6	5.5	0	7	6.5	3	6.5	6.75	6	6.25	4.75	5.25	4	6	0	4	6	
Party Hours: On Foot			105.2	82.5	117.5	10.5	9.5	8	3.5	8	4.75	5	3.5		6.5	5.5	3	6.5	6	4	5.75	4.75	4.75	3	5		4	6	
Party Hours: By Car			25.6	15.5	14	1.5	0.5	1		0.5	0.25	1	2		0.5	1			0.75	2	0.5		0.5	1	1				
Party Miles: Total			256.8	251.1	242.5	52	7	0	0.5	12	7	25	15	0	28	11	3	5	21	11	11	2	9	14	2	0	3	4	
Party Miles: On Foot			79.9	69.5	72.5	3	4	5	0.5	6	2	5	4		3	6	3	5	5	3	3	2	4	1	1		3	4	
Party Miles: By Car			176.9	181.6	190	49	3	15		6	5	20	11		25	5			16	8	8		5	13	1				
Nocturnal Hours			5.25	4.2	6.45	2		1			0.7						0.5				1		0.75					0.5	
Nocturnal Miles			20	16.5	11.75	3		0.5								1.5				6		0.25						0.5	
Feeder Watchers				1	11				1	2					1											2		5	
Feeder Hours				5.75	24				2	5					2											3.5		11.5	

CH: Chapel Hill CBC; count date: 12/26/11; compiler: Will Cook; 36-53 F; N 0-10 mph; partly cloudy, no precip

Ral: Raleigh CBC; count date: 12/17/11; compiler: John Connors

Falls: Falls Lake CBC; count date: 1/4/12; compiler: Brian Bockhahn

Dur: Durham CBC; count date: 12/18/11; compiler: Mike Schultz

JL: Jordan Lake CBC; count date: 1/1/12; compiler: Norm Budnitz

Party Areas

- 1 1,4
- 2 2,7
- 3 3,5,6
- 4 7-part
- 5 8, 13
- 6 9, 10
- 7 11, 12
- 8 14, 17
- 9 14-yard
- 10 15,18
- 11 16, 29
- 12 19
- 13 20

Party Members

- Derb Carter
- Pam Timmons, Perry Haaland
- Jeff Pippen, Toni Rexrode
- Karyn Hede
- Tom Driscoll, Colyer Durovich, Peter Perlman,
- Bo Howes; Feeders: Barbara Driscoll, Philip Bushnell
- Norm Budnitz, Gene Kingsley
- Kent Fiala
- Betty King, Judy Teague, Bev Scalise
- Julia Shields
- Mike Tove, Eddie Owens
- David Smith, Judy Hinderliter Smith, Mary Kay Robinson
- Carol Williamson Chelette, Carl Chelette
- Will Cook, Mary Moser, Mike Hayes, Susan Lankford,

Party

- 14 21
- 15 22 N
- 16 22 S
- 17 23,25
- 18 24 N
- 19 24 S
- 20 26
- 21 28-yard
- 22 30
- 23 32

Areas

Party Members

- Diane Hardy, Harriet Sato, Bob Winstead
- Brian Bockhahn
- Phil Warren, Rouse Wilson, Marshall Wilson, Will Malan,
- Reed Bowman
- Amalie Tuffin
- Doug Shadwick
- Edith Tatum
- Jon Bennett, Will Mackin
- Amy Denham, John Denham
- Jane Oliver
- Maurice Graves, Steven Graves, David Murdock, Bobbie Hahn
- Feeder watchers: Harry & Caroline Pederson,
- Jerrold & Joan Walecka, Florence McCachren