
Christmas counts of birds in Trinidad 1969-1975 and 1981-1983

By Richard French Beech Ridge, Bussage, Stroud, Glos., England

INTRODUCTION

The results of ten "Christmas Counts" during the periods 1969-1983 are here presented and analyzed. Christmas Counts of birds are routinely made in many parts of North America under the auspices of the National Audubon Society. Starting with 27 observers on Christmas Day 1900, the counts now involve many thousands of cooperators, and the idea has spread beyond the boundaries of U.S.A. into Canada, Latin America and the West Indies.

The counts here described were first held under the auspices of the Florida Audubon Society as part of an initial attempt to incorporate regular Christmas Counts into the programme of cooperators in neotropical countries. The results were published in a journal called "Pan American Naturalist". This arrangement was soon terminated, so I carried on up to 1975 for my own interest. Since 1976 counts have continued and have been published in "American Birds", an official publication of the National Audubon Society, but there has been no comparative analysis of the figures to date.

I here present the results of ten years' counts, these being the years when I myself attended and organised the studies. During the five intermediate years 1976 - 1980 counts were made, but by very variable numbers of observers, and occasionally in a slightly different area. As I feel unable to evaluate these five counts objectively, I have omitted them from this study.

METHODS

These Christmas Counts follow the rules laid down internationally for all participants under the National Audubon Society's jurisdiction. One area, forming a circle with diameter of 15 miles, is studied each year at about Christmas time. On a single chosen calendar day within the period, from midnight to midnight, all the birds found within the area are recorded. The number of participating observers is unlimited, and they may be divided into different groups, provided the same birds are not counted by more than one group. All the species that are recognised are recorded, along with the numbers of individuals. Although complete accuracy is the aim, in the case of large flocks of birds a reasonable estimate of numbers is allowed.

The circle chosen in Trinidad had its centre at Arouca (Fig. 1). Thus the places covered included the Arima Valley north to the watershed up to Las Lapas Trace, La Laja road, the western portion of Waller Field, Piarco, St Augustine and the eastern

portion of Caroni Swamp, including the bird sanctuary. In practice the group concentrated on Las Lapas, the Asa Wright Nature Centre, La Laja, Waller Field and the Caroni Swamp with adjoining marshes.

In 1981-1982 less time was spent on the above areas in order to allow the inclusion of the Government Stock Farm in north Waller Field, St Raphael and the western section of the Arena Forest, and Las Lomas.

In all cases the time spent observing approximated to twelve hours, roughly 0600 to 1800, and the weather was usually fine, allowing maximum observation. However, there were sometimes showers, and in two cases, 1971 and 1982, a great deal of light rain fell, inhibiting the course of observation.

In every case but two the observers worked in one single party, varying from three to six in number, but in 1981 and 1983 thirteen and 27 observers formed two parties, one in the Northern Range and one in the plains, and were thus able to spend longer in their respective areas. However, no birds were counted outside the originally chosen circle.

RESULTS AND DISCUSSION

Table 1 summarises the counts by years, giving total figures. Table 2 lists all 201 species recorded during the ten counts, and gives totals of individuals in each species year by year.

Table 2 indicates roughly those species that are usually abundant or commonly seen in the count area. Of the 201 species 52 were recorded in each count, ranging from the Scarlet Ibis whose numbers always topped 1000 to the Yellow-bellied Elaenia whose numbers ranged from 1 to 7. All of these 52 species (and several others that were recorded in nine out of ten counts) can be considered "common" in the sense that one can *expect* to see them on any outing. However, a bird like the Osprey may be invariably present without being common, since because of limited habitat and territory size it is never likely to be present in large numbers. So the list may be useful, especially to beginners, since it gives some idea of those species which are *likely to be seen* (or heard).

The figures also reflect some significant changes. In the period 1981-1983, when north Waller Field, San Raphael and Las Lomas were included for the first time, species such as the Southern Lapwing, Savannah Hawk and Yellow-rumped Cacique were recorded, all of them absent before. In addition, Wattled Jacana and Orange-winged Parrot numbers reflect these added habitats, and White-headed Marsh-Tyrants were now seen in much greater numbers. On the converse side, Common Potoos were no

longer seen, since their favoured habitat was Cacandee, an area no longer covered after 1971.

More significant changes are seen for those species affected by the salt-water infiltration into the savannah and fresh-water marsh east of the Caroni North-South Drain. Though this infiltration predates 1960, its effect has been gradual (and to date continues), killing the fresh-water marsh-plants and creating shallow brackish lagoons, fringed or covered with mangrove saplings. This development has no doubt been at least partly instrumental in causing the notable desertion of the Bird Sanctuary roost-site by several heron species, including the Great Egret, Snowy Egret, Cattle Egret, Little Blue Heron and Tricolored Heron. All these species now roost much further east, nearer to the highway. The significant fall in numbers observed on the counts may not necessarily imply that these birds have diminished; it may merely indicate a change to a new roost-site, less accessible to observation. The Yellow-throated Spinetail, another fresh-water marsh-bird, has similarly been driven east.

However, the above development has converted areas, hitherto covered by marsh-plants, to open brackish lagoons, where increased numbers of Pied-billed Grebes and Common Gallinules are now to be found.

Certain gregarious species show striking increases in numbers for some years, apparently without cause. These include the Black Vulture and three icterids, the Shiny Cowbird, Carib Grackle and Yellow-hooded Blackbird. These sudden, and not sustained, increases may simply be ascribed to the chance observation of large flocks on certain days.

Some species, however, do seem genuinely to have increased in numbers. Among these, the Ornate Hawk-Eagle has been more in evidence over the Northern Range in later years. Once its call can be recognized it is likely that an observer will record this species on any single day's outing in the hills; 15 to 20 years ago this could not be said. At Springhill the Oilbird population has steadily increased, in spite of occasional setbacks, under the influence of protection afforded by the Nature Centre. My own feeling is that a number of 150 is probably saturation point, given the size of the appropriate habitat, and that an occasional exodus of 30 or so subadult birds must take place from time to time; which could account for the fluctuations over 100. I have to admit to being puzzled by the sudden appearance of the migrant Barn Swallow on the list from 1974 onwards. What seems odd is that it was not noticed during 1969-1973. But the species

does thrive on aerial insects that associate with cattle pastures, so it is not too surprising to find them common on the Waller Field stock farm.

Finally, significant decreases can be seen in Scarlet Ibis and Ruddy-breasted Seedeater. The former has changed its dispersal habits considerably since the late 1960's, and it is also a difficult bird to count, always seeming to be more numerous than it really is, possibly because of the sheer spectacle it affords when in large flocks. My personal view is that its numbers have been adversely affected, though not seriously, by the failure of Government to manage the tourist traffic on a proper basis. The same authorities are also indirectly responsible for the notable disappearance of the once-common Ruddy-breasted Seedeater. Owing to the gradual destruction by trapping of several other finch species – a practice that the Government has done nothing to reduce – trappers have recently turned to this seedeater, hitherto considered too small to bother with, so that now it too will follow its congeners into oblivion within a decade or two.

ACKNOWLEDGMENTS

I should like to thank all these who have participated in the counts. They were Margaret, Simon and Julie French, Daniel Lehrmann, Patrick, Ruth and Andrew Haynes, Geoff and Kate Gibbs, Mike Harris, D. and M. Watson, Ian Walker, Richard Barchet, Harvey Gilston, Delia, Jeremiah and Sam Adams, Paddy Bell, Bob and Janet Kennedy, Bob Merritt, Jogie and Roodal Ramlal, John Perreira, Victor Quesnel, Paul Christopher, Ian Lambie, Edward Rooks, Sylvia and Ann Marie Kacal, John and Dorothy Truman, Graham White, Winston Nanan, Flossie and Melissa Cowell, Betty and Leo Kaufman, Donna Peterson, Mary and Tom Wood, Leonard and Lillian Wurzel, Lynne Yaskot. Winston Nanan very kindly allowed us the use of his boat on three occasions.

Postscript

Dare I hope that some members of the Trinidad and Tobago Field Naturalists' Club may be influenced by the above report to lend their energies towards future counts, so that the areas covered may be more thoroughly studied, and thus enable a regular monitoring system of a least one part of Trinidad to be established?

TABLE 1

Summary of Christmas Count data, Trinidad, 1969-1975, and 1981-1983.

Year	Observers	Parties	Species	Individuals	Remarks
1969	4	1	117	5176	Fine; edge of Waller Field only
1970	6	1	108	9958	Few showers; included Cacandee and Centeno
1971	5	1	113	13249	Drizzle for half the day
1972	6	1	110	12255	2 hours rain midday. No. 9 Drain instead of Cacandee

1973	5	1	116	9925	Fine
1974	5	1	116	7065	Fine
1975	3	1	112	11759	Mostly fine; rain at Las Lapas

* * * * *

1981	13	2	135	8380	Fine; area included Las Lomas, Arena Forest, N. Waller Field.
1982	3	1	125	6500	Showery
1983	27	2	148	5815	Mostly fine

TABLE 2

Species and individuals recorded on Christmas Counts 1969 – 1975 & 1981 – 1983

Species	1969	1970	1971	1972	1973	1974	1975	1981	1982	1983
Little Tinamou	1	1	6	2		2	1	4	2	5
Pied-billed Grebe		2	2		4	4		12	10	6
Anhinga	1		1				1	1	2	2
Magnificent Frigatebird		1	1					10	1	
White-necked Heron	1	1	1	1						
Great Egret	28	38	48	68	120	70	20	13	8	13
Snowy Egret	14		56	12	70	122	1	4	3	1
Little Blue Heron	212	113	123	70	118	21	18	23	86	22
Tricolored Heron	376	147	370	128	353	160	54	32	38	7
Striated Heron	3	2	8	2	2		2	4	1	2
Cattle Egret	1120	6982	5938	6700	4100	2500	5200	714	795	280
Black-crowned Night-Heron		1					12			
Yellow-crowned Night-Heron	9		4	11		1		3		1
Boat-billed Heron										
Scarlet Ibis	1500	1446	4992	4162	3800	3248	5601	5000	3500	3500
Black-bellied Tree-Duck								2		
American Wigeon	8					1			2	
Blue-winged Teal	89			7	70			20	1	
King Vulture	1									
Black Vulture	46	77	127	59	165	123	73	1133	181	701
Turkey Vulture	3	2	6	3	3	5	7	7	7	19
Gray-headed Kite								1		
Double-toothed Kite		3								
Short-tailed Hawk	1		2	1	1	2	1			
Gray Hawk		1		1		2			1	1
White Hawk		2		1		1		2		
Savanna Hawk								5	6	4
Common Black Hawk	1	2		9	1	2	2	4	2	4
Great Black Hawk		1								
Ornate Hawk-Eagle								1	4	
Long-winged Harrier		1								
Osprey	2	4	2	5	5	5	5	2	6	8

Species	1969	1970	1971	1972	1973	1974	1975	1981	1982	1983
Yellow-headed Caracara							1			
Peregrine	1									
Bat Falcon		3				4			1	3
Merlin	1	1	1	2		1	1		1	2
Gray-breasted Crake										1
Clapper Rail	4	2		2	1		1	2	2	2
Gray-necked Wood-Rail		2								
Common Gallinule	4	4	12		2	11	4	49	55	38
Purple Gallinule	1	1			6	2	2			4
Wattled Jacana	8	31	21	2	6	6	8	38	59	49
Southern Lapwing								24	15	19
Black-bellied Plover	7			10						22
Solitary Sandpiper			1		6	1	2	3	3	5
Lesser Yellowlegs	10	79		49	5		6	8	1	9
Greater Yellowlegs	4				1		11		7	3
Spotted Sandpiper	21	30	58	30	71	14	35	30	20	41
Willet						2				6
Least Sandpiper								4		17
Pectoral Sandpiper									5	6
Semipalmated Sandpiper								40	1	2
Common Snipe								1	1	
Short-billed Dowitcher										1
Scaled Pigeon	1		3	1		1	1	5	12	22
Pale-vented Pigeon			1				1			
Eared Dove	7	5	21	2		2	1	8	4	2
Common Ground-Dove				5				7	4	4
Plain-breasted Ground-Dove		2	1		22	2				
Ruddy Ground-Dove	21	25	34	29	28	46	13	56	58	36
White-tipped Dove		1			4			1	2	2
Gray-fronted Dove	2	2	1	2		2	2	7	1	1
Green-rumped Parrotlet		6			3	3	1	33	2	30
Lilac-tailed Parrotlet		14	4	14	1	1	1	12	4	
Blue-headed Parrot					1			10	6	10
Orange-winged Parrot		16		8	4	2	2	21	75	29
Mangrove Cuckoo					1				1	1
Squirrel Cuckoo							2	1		2
Greater Ani			6	1		2	1			
Smooth-billed Ani	45	70	29	39	27	36	21	35	35	18
Striped Cuckoo				3		2	4	6		
Barn Owl			1							1
Ferruginous Pygmy-Owl	4	2	1	5		2	1	8	4	5
Oilbird	36	37	43	43	49	64	74	123	105	50
Common Potoo	4	7	4				1			
Semicollared Nighthawk									1	
Pauraque										1
White-tailed Nightjar			1							
White-collared Swift	1									
Chestnut-collared Swift					1					
Gray-rumped Swift	100	31	26	10	50	17	56		30	12

Species	1969	1970	1971	1972	1973	1974	1975	1981	1982	1983
Band-rumped Swift	29	2	2	7	2	6	5			10
Short-tailed Swift	45	9	32	32	58	6	45	3	6	21
Lesser Swallow-tailed Swift					1	2				1
Rufous-breasted Hermit	1	6	2	3		4	4	3	4	9
Green Hermit	2	7	9	18	6	6	7	4	4	3
Little Hermit	1			2	1	1	1	5	4	5
White-necked Jacobin			1		1					1
Brown Violetear			1	4	4		1			
Green-throated Mango				1						
Black-throated Mango	2	5	6	10	14	4	2	4	2	2
Ruby Topaz				1	3	1	1	1		1
Tufted Coquette		1				2		1	1	1
Blue-chinned Sapphire	1	4	1	4	4	3	2	3		4
White-chested Emerald	6	5	3	5	2	3		12	1	5
Copper-rumped Hummingbird	8	10	7	6	6	8	10	9	4	9
Long-billed Starthroat								1		1
White-tailed Trogon				3				1	1	2
Collared Trogon	1							5		1
Violaceous Trogon	1		1		1	3		3		3
Belted Kingfisher	1									
Pygmy Kingfisher									1	
Blue-crowned Motmot			1				1	2	1	2
Rufous-tailed Jacamar					1	2				
Channel-billed Toucan	11	5	8	13	6	5	13	9	17	12
Golden-olive Woodpecker	3	3	1	3	2	4	3	6	4	3
Chestnut Woodpecker	1				2	1		2		2
Lineated Woodpecker			1	1	1			3		2
Red-rumped woodpecker	1					1				1
Crimson-crested Woodpecker	1									
Plain-brown Woodcreeper		1			2			1	2	1
Buff-throated Woodcreeper	1	1	1		1	2	1	1	2	2
Pale-breasted Spinetail		2		2		1	2	6	4	1
Stripe-breasted Spinetail			1			1		1		
Yellow-throated Spinetail	16	10	10	7	4	4	4	6	2	8
Streaked Xenops					1	1				
Great Antshrike	2		4		1		1	2	3	3
Black-crested Antshrike				1	3	2	2	2	3	2
Barred Antshrike	1	5	3	5	3	5	6	12	4	4
Plain Antvireo								1		
White-flanked Antwren	4				1					3
White-bellied Antbird	2	2	1	2	1		3		2	6
Black-faced Antthrush	4	3	3	2	2	1	1	3	4	4
Bright-rumped Attila								2	2	1
Black-tailed Tityra	1				5			3		1
Bearded Bellbird	7	12	10	6	13	10	1	8	5	6
Golden-headed Manakin	12	7	8		9	3	2	8	5	19
White-bearded Manakin	8	8	1	10	6	2		10	5	20
Fork-tailed Flycatcher										18

Species	1969	1970	1971	1972	1973	1974	1975	1981	1982	1983
Pied Water-Tyrant	6	5	10	8	1	2	10	8	12	8
White-headed Marsh-Tyrant	7	4	3	1	3	1	6	19	16	12
Tropical Kingbird	12	12	13	20	15	15	26	22	16	19
Gray Kingbird	1						1			
Boat-billed Flycatcher	3	5	5	5	1	1	1	8	3	6
Streaked Flycatcher	1		2	1		1	1	2	1	1
Great Kiskadee	7	4	6	16	18	18	10	21	17	16
Dusky-capped Flycatcher	1	1								
Olive-sided Flycatcher	1									1
Tropical Pewee		4	5	3	2	2	3	1		3
Euler's Flycatcher										1
Yellow-olive Flycatcher				2			1			1
Yellow-breasted Flycatcher	3	3	1		3	1	1	3	6	2
Yellow-bellied Elaenia	1	3	1	2	4	5	7	6	4	5
Forest Elaenia								2		
Southern Beardless Tyrannulet	1		1		2	1		1		8
Slaty-capped Flycatcher	1							2		
Ochre-bellied Flycatcher		2	3	5		2				2
White-winged Swallow									1	
Gray-breasted Martin	11	42	17		25	12	3	4	54	5
Rough-winged Swallow	2	1		2	3			2	1	
Barn Swallow						17	4	73	115	7
Rufous-breasted Wren	6	4	6	14	5	10	8	8	8	7
House Wren		3	6	14	10	8	8	26	5	7
Tropical Mockingbird	3	24	10	14	14	25	17	26	10	12
Yellow-legged Thrush	3								1	
Cocoa Thrush	4	5	8	10	15	3	1	27	11	8
Bare-eyed Thrush	1	1	2	2	2		1	6	2	2
White-necked Thrush	2		3	2	5	1	1	2	2	7
Long-billed Gnatwren	4	3	1	3	3	1	2	8	2	5
Rufous-browed Peppershrike	8	9	8	11	15	11	13	11	7	7
Chivi Vireo										1
Golden-fronted Greenlet	9	7	8	7	11	12	1	2	2	12
Shiny Cowbird	515	220	2	10	49	15	22	20	52	15
Giant Cowbird		2	5		5	2		15	3	3
Crested Oropendola	24	13	44	65	64	16	24	61	59	18
Yellow-rumped Cacique								17	16	21
Carib Grackle	529	38	77	41	71	50	59	44	640	134
Yellow-hooded Blackbird	27	18	115	8	31	14	2	6	4	7
Yellow Oriole	1	4		6	4	3	2	9	4	3
Red-breasted Blackbird	6	6	17	3	9	8	5	7	4	5
Black-and-White Warbler					2	1				
Tropical Parula	2			4	2	2	1	1		
Yellow Warbler	1	3	3	8	2	6	4	15	2	5
Northern Waterthrush	1	1	7	6	4	13	4	6	2	8
Masked Yellowthroat			1				1			
American Redstart	1		2	1	8	2	2	5	2	2
Golden-crowned Warbler	2	3	3	2	2			1	1	5

species	1969	1970	1971	1972	1973	1974	1975	1981	1982	1983
Bananaquit	25	71	42	109	88	98	51	41	26	33
Bicolored Conebill	1	2	1				1	3	9	3
Purple Honeycreeper	6	4	3	6	8	3	2	16	4	5
Red-legged Honeycreeper		1								
Green Honeycreeper	4	14	7	16	16	1	2	4	2	12
Blue Dacnis	1		6	4	6	1	1	6		7
Trinidad Euphonia			1							
Violaceous Euphonia	8	7	7	8	1	3		12	6	12
Speckled Tanager				6	2	2	1	2	4	5
Turquoise Tanager	1		6	14	5		7	15	14	16
Bay-headed Tanager	8	15	5	22	14	10	2	26	10	27
Blue-gray Tanager	7	20	20	32	19	7	12	12	22	14
Palm Tanager	2	17	23	23	17	9	24	23	17	24
Silver-beaked Tanager	4	9	2	10	6	9	5	11	20	12
Hepatic Tanager		2	1		7	3			5	1
Summer Tanager										1
Red-crowned Ant-Tanager			1			4	2		4	2
White-lined Tanager	9	13	10	11	8	8	15	13	10	8
White-shouldered Tanager				1	2			2		
Grayish Saltator		1	4	9	8	3	1	8	1	
Dickcissel	1									
Blue-black Grassquit	10	22	31	37	22	21	6	33	6	6
Yellow-bellied Seedeater			1	1	1					
Ruddy-breasted Seedeater	10	8	1	3	14	7	6	4		2

