

Tom Davis

Juv. Pectoral Sandpiper
25 September 1983

JBWR

THE 1983 FALL SHOREBIRD SEASON AT JAMAICA BAY WILDLIFE REFUGE

THOMAS H. DAVIS

Thirty-five species of shorebirds were noted at Jamaica Bay Wildlife Refuge (JBWR), Queens Co., during the period 24 June-12 November 1983. I visited the refuge forty-seven times during this period and endeavored to census every species at least once a week, to note the arrival dates of adults and juveniles of 17 migrant species, and to add to my photographic collection.

I have previously published a description of my techniques, census areas, shorebird historical data, and National Park Service management policy in *The Kingbird* (32: 85-96, 1982; also see 33: 94-102, 1983). This year for the first time I was able to extend my survey into early November, to document the tail end of several species' migration. Table 1 presents this year's census data, Table 2 notes the arrival dates of adults and juveniles, plus a 5-year summary of their arrival dates, and Table 3 summarizes my 1981-83 surveys.

SELECTED SPECIES ACCOUNTS

Black-bellied Plover: This year's peak count of 1,127 birds 3 September was nearly 50% higher than previous years' maxima. Numbers of roosting birds declined less drastically this year in late September to mid-October, probably owing to the infrequent occurrence of Peregrine Falcons.

Lesser Golden-Plover: This species continues an upward trend, with 68 birds on 11 dates (vs. 33 birds on 14 dates in 1982 and 19 birds on eight dates in 1981).

Semipalmated Plover: This year's peak count of 1,203 birds 18 August was over 50% higher than previous years' maxima.

American Oystercatcher: Numbers appeared to have stabilized this year, possibly owing to limited undisturbed breeding habitat in Jamaica Bay.

American Avocet: not recorded this fall for the first time since 1976.

Solitary Sandpiper: A bird present 17-23 July was an adult; all other fall birds have been juveniles.

Willet: A total of 83 birds on 33 dates reflects a still-increasing local breeding population (63 birds on 28 dates in 1982 and nine birds on eight dates in 1981).

Hudsonian Godwit: The season total was eight or nine individuals.

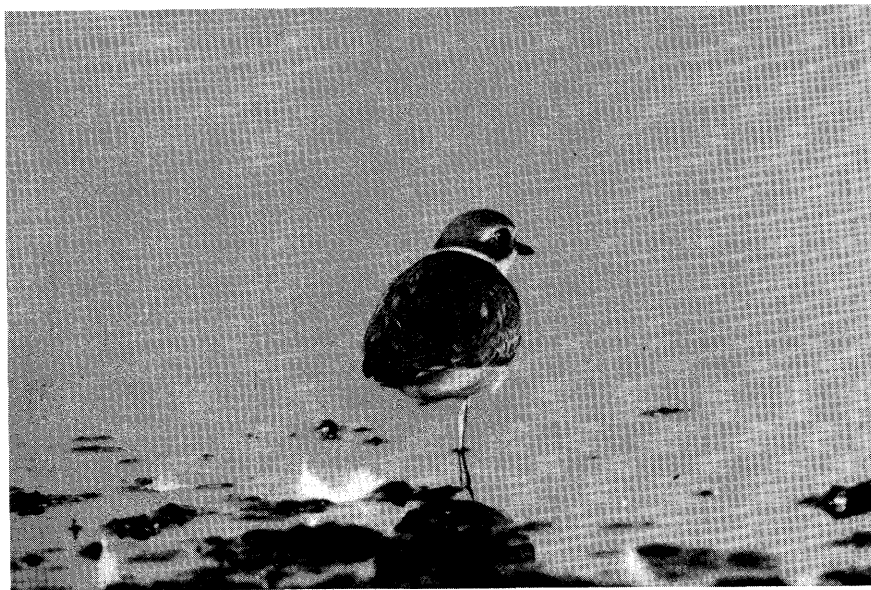
Marbled Godwit: The season total was two individuals.

Red Knot: This species continues an upward trend, with peak counts increasing by 50% each year; this year's maximum was 736 birds 9

August. Also impressive was the number of juvenile birds noted from mid-September into early November, far exceeding the last two years' totals.

Ruddy Turnstone: This species continues an upward trend, with peak counts increasing by 100% each year, this year's maximum was 235 birds 18 August.

Sanderling: Sanderlings principally visit the East Pond to roost, with little foraging activity taking place. They favor a sandy spit along the west side of the pond, opposite a small brushy island near the north end. Each year their numbers have plummeted in mid-September. I formerly attributed this decline to disturbance from raptors. I now suspect that a carpet of short grass emerging at this time causes the birds to shift their roost to a beach east of the IND railroad tracks, where their molted plumage blends more evenly against a sandy background.



Tom Davis

Juv. Semipalmated Sandpiper
11 September 1983

JBWR

Semipalmated/Western Sandpiper: The difference between these species' molt schedules continues to impress me. Of the small number of juvenile Semipalmateds present late October-early

November all were heavily worn, but none exhibited obvious body molt. Adult Semipalmateds observed in the first half of September showed considerable body molt, but none were seen in full winter plumage. An adult Western on 22 August was in full winter plumage, most juveniles exhibited obvious body molt after mid-September, and the lone bird on 8 November was in first-winter plumage.

Little Stint: An adult in worn breeding plumage was observed and photographed 17-22 July. Details of this first New York State report will appear in a future issue of *The Kingbird*.

Baird's Sandpiper: The season total was one individual.

Pectoral Sandpiper: A below-average season except for a large influx of juveniles the weekend of 24-25 September. The total of 42 birds 24 September nearly tripled the previous high count of 15 on 2 October 1982.

Sharp-tailed Sandpiper: An adult in worn breeding plumage 16 July at the East Pond was probably the same individual present here 18-24 July 1981 (see T. H. Davis, 1981, *Kingbird* 31: 198-201); details to NYS Avian Records Committee.

Curlew Sandpiper: Two worn, molting adults were noted, 17 July-6 August and 22-23 July.

Stilt Sandpiper: I have no ready explanation for the 5-year 28-day spread of juvenile arrival dates cited in Table 2. In most species the first juvenile is represented by one or two individuals, and greater numbers do not appear for a week or two following. Following seeing the first juvenile stilt this year on 7 August, I did not see another for over a week; perhaps I missed these earliest individuals in other years. Regardless of the arrival date, peak numbers of juvenile Stilts pass through JBWR 1-10 September (see Table 3).

Buff-breasted Sandpiper: The season total was one individual.

Ruff: A molting adult was observed at the East Pond 30 August (H. McGuinness, T. Stiles).

Short-billed Dowitcher: A lingering molting juvenile was observed to 29 October; my previous late date was 11 October 1982.

Long-billed Dowitcher: The first juvenile was noted 8 October, despite determined searching the previous two weekends; juveniles of this species are the last to arrive each year at JBWR.

Wilson's Phalarope: The season total was 10-12 individuals.

Red-necked Phalarope: The season total was two individuals.

9446 85 Road, Woodhaven, New York 11421

Table 1. JBWR 1983 Fall Shorebird Censuses
(all counts were taken at high tide)

	<u>6/24</u>	<u>6/25</u>	<u>7/1</u>	<u>7/9</u>	<u>7/10</u>	<u>7/16</u>	<u>7/17</u>	<u>7/20</u>	<u>7/23</u>
				2		1	(2)	1	2
Plover, Black-bellied									
Lesser Golden-Semipalmated				7	5	35	40	✓	60
* Killdeer	5	5	2	26	19	20	20	✓	4
* American Oystercatcher	8	4		4	11	3	4	2	1
Yellowlegs, Greater	3	1		15	13	93	60	✓	70
Lesser			2	6	3	10	10	✓	25
Sandpiper, Solitary							1		(1)
* Willet		4		1			1		1
* Sandpiper, Spotted				7	5	2	4	✓	3
Whimbrel									1
Godwit, Hudsonian									1
Marbled					(1)				
Ruddy Turnstone								(1)	12
Red Knot							1	10	12
Sanderling						1	2	4	15
Sandpiper, Semipalmated	2	1		8	30	395	480	✓	600
Western							1	2	1
Little Stint							1	1	
Sandpiper, Least				55	20	105	100	✓	40
White-rumped									(2)
Baird's									
Pectoral						1	(2)		(1)
Sharp-tailed						1			
Dunlin							1	1	1
Sandpiper, Curlew							1	1	2
Stilt								2	6
Buff-breasted									
Ruff									
Dowitcher, Short-billed			40	676	340	738	634	✓	400
Long-billed									2
Common Snipe									
* American Woodcock									
Phalarope, Wilson's									
Red-necked									
No. Species	4	5	3	11	10	13	19	18	24
No. Individuals	18	15	44	807	447	1405	1365		1263
Coverage: East Pond			c	abcd	abcd	abcd	abcd	abc	abcd
West Pond	e	e		ef	e				

* = breeds locally () = reported by others ✓ = numbers not counted

Table 1. JBWR 1983 Fall Shorebird Censuses
(all counts were taken at high tide)

	<u>7/30</u>	<u>7/31</u>	<u>8/6</u>	<u>8/9</u>	<u>8/10</u>	<u>8/12</u>	<u>8/13</u>	<u>8/14</u>	<u>8/16</u>
Plover, Black-bellied	14	10	116	220	✓	260	✓	✓	✓
Lesser Golden-Semipalmated	250	✓	620	876	✓	865	✓	✓	✓
* Killdeer	8	✓	4	4	7	4	3	3	11
* American Oystercatcher	2	3	10	1	11	9	17	8	5
Yellowlegs, Greater	176	✓	210	200	✓	168	✓	✓	✓
Lesser	45	✓	55	73	✓	25	✓	✓	✓
Sandpiper, Solitary									
* Willet	(1)		1	1	1	(1)	1	1	2
* Sandpiper, Spotted	4	3	2	2	1	4	2		2
Whimbrel									
Godwit, Hudsonian				1	2	2	2	2	1
Marbled									
Ruddy Turnstone	37	48	125	60	177	180	130	✓	125
Red Knot	200	✓	600	736	✓	620	✓	✓	340
Sanderling	9	85	310	50	80	25	75	✓	260
Sandpiper, Semipalmated	1745	✓	1550	2220	✓	2235	✓	✓	✓
Western	2					1	2	(1)	
Little Stint									
Sandpiper, Least	73	✓	95	28	✓	34	38	✓	✓
White-rumped	1	2	(1)	3	4	2	4	2	3
Baird's									
Pectoral	3	1						(2)	
Sharp-tailed									
Dunlin				1	1	2	1	1	1
Sandpiper, Curlew	1	1	1						
Stilt	9	✓	6	10	11	23	22	35	✓
Buff-breasted									
Ruff									
Dowitcher, Short-billed	355	✓	340	410	✓	145	150	✓	180
Long-billed	3	2	6	9	5	6	12	✓	10
Common Snipe									
* American Woodcock									
Phalarope, Wilson's							(1)	2	
Red-necked									
No. Species	20	19	19	19	19	20	21	21	19
No. Individuals	2938		4053	4905		4611			
Coverage: East Pond	abcd	abd	abcd	abcd	abcd	abcd	abcd	abcd	abcd
West Pond									

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Table 1. JBWR 1983 Fall Shorebird Censuses
(all counts were taken at high tide)

	8/17	8/18	8/21	8/22	8/23	8/24	8/26	8/27	9/3
Plover, Black-bellied	✓	670	✓	480	✓	✓	✓		1127
Lesser Golden-Semipalmated	✓	1203	✓	865	✓	✓	✓	✓	190
* Killdeer	✓	6	3	4	3	4	4	7	5
* American Oystercatcher	4	16	2	10	1		15	10	10
Yellowlegs, Greater	✓	332	✓	304	✓	✓	✓	✓	480
Lesser	✓	75	✓	83	✓	✓	✓	✓	64
Sandpiper, Solitary									(1)
* Willet	1	5	4	6	2	2	2	3	6
* Sandpiper, Spotted	2	2		5	2	1	2		1
Whimbrel		1				1		2	
Godwit, Hudsonian		1	1	1	2	1	2	2	4
Marbled									1
Ruddy Turnstone	✓	235	✓	50	✓	75	✓	✓	35
Red Knot	✓	650	✓	250	400	✓	✓	✓	136
Sanderling	✓	266	✓	12	3	3	✓	✓	210
Sandpiper, Semipalmated	✓	1730	✓	1305	✓	✓	✓	✓	310
Western			1	9	6	6	24	✓	6
Little Stint									
Sandpiper, Least	✓	35	✓	58	✓	✓	✓	✓	43
White-rumped	1	2	2	8	4	6	6	6	7
Baird's									
Pectoral	3	1	1				7		(1)
Sharp-tailed									
Dunlin	1	2		1	1	2	2	1	2
Sandpiper, Curlew									
Stilt	✓	6	✓	12	8	6	✓	✓	15
Buff-breasted									
Ruff							see text		
Dowitcher, Short-billed	✓	175	✓	95	✓	✓	✓	✓	50
Long-billed	✓	18		17	2	3	1	1	14
Common Snipe									
* American Woodcock									
Phalarope, Wilson's	2	1	1	4	1		3	3	
Red-necked									1
No. Species	20	22	19	21	22	21	22	21	24
No. Individuals		5432		3579					2719
Coverage: East Pond	abd	abcd	ab	abcd	bc	bc	abcd	abcd	abc
West Pond		e						e	e

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Table 1. JBWR 1983 Fall Shorebird Censuses

(all counts were taken at high tide)

	9/4	9/5	9/10	9/11	9/17	9/18	9/20	9/24	9/25	10/1
Plover, Black-bellied	✓	✓	860	✓	350	✓	✓	585	✓	260
Lesser Golden-Semipalmated	✓	1	2	21	9	5	7	11	7	
* Killdeer	1		11	2	6	3	3	1	2	3
* American Oystercatcher	13	1	3	2	4			4	4	
Yellowlegs, Greater	✓	✓	176	✓	142	✓	✓	13	✓	22
Lesser	✓	✓	66	✓	50	✓	✓	33	✓	10
Sandpiper, Solitary			1							
* Willet	4		1	1	5	2	3	4	4	3
* Sandpiper, Spotted	1	2	(1)	1	(2)	(1)	1		(1)	
Whimbrel				(1)		5		6		
Godwit, Hudsonian	3	2	1	1					1	1
Marbled			1	1	1		1	1		
Ruddy Turnstone	✓	✓	25	✓	22	✓	18	8	8	8
Red Knot	✓	✓	60	112	80	✓	125	92	✓	40
Sanderling	60		8	3	3	5	2			
Sandpiper, Semipalmated	✓	✓	575	✓	374	✓	190	348	✓	95
Western	5	3	17	6	24	✓	1	5	2	2
Little Stint										
Sandpiper, Least	✓	✓	40	✓	34	✓	35	34	✓	12
White-rumped	4	6	9	5	5	6	3	6	4	3
Baird's			1	1						
Pectoral			3	1	7	6	11	42	39	1
Sharp-tailed										
Dunlin	1	2	1	1	3	7	3	32	36	90
Sandpiper, Curlew										
Stilt	14	2	27	✓	35	✓	12	10	(10)	3
Buff-breasted				(1)	1	(1)				
Ruff										
Dowitcher, Short-billed	✓	✓	44	✓	48	✓	✓	42	✓	20
Long-billed	4	3	18	✓	6	✓	4			
Common Snipe	1									
* American Woodcock									1	
Phalarope, Wilson's				1	5	2				
Red-necked	1	2	2	1						
No. Species	22	19	26	28	24	23	21	20	21	17
No. Individuals			2088		1274			1343		591
Coverage: East Pond	abd	bcd	abcd	bc	abcd	bc	bc	abc	bcd	bcd
West Pond					e	e	e	e	e	ef

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Table 1. JBWR 1983 Fall Shorebird Censuses

(all counts were taken at high tide)

	<u>10/2</u>	<u>10/8</u>	<u>10/14</u>	<u>10/15</u>	<u>10/23</u>	<u>10/29</u>	<u>10/30</u>	<u>11/5</u>	<u>11/8</u>	<u>11/12</u>
Plover, Black-bellied	292	420	80	190	510	250	✓	520	710	22
Lesser Golden-Semipalmated	3	13			1			1		
* Killdeer	7	1	1				3	1	1	
* American Oystercatcher	(1)									
Yellowlegs, Greater	16	38	1	5	140	15	57	125	79	8
Lesser	18	8			8	1				
Sandpiper, Solitary										
* Willet	4	3	2							
* Sandpiper, Spotted										
Whimbrel										
Godwit, Hudsonian										
Marbled										
Ruddy Turnstone	6	2		1	4	3	1	7	10	
Red Knot	40	45		20	104	25	8	75	115	32
Sanderling	3	6		4	1	1	15	10	90	1
Sandpiper, Semipalmated	80	10		2	8	6	8	4	4	
Western	2								1	
Little Stint										
Sandpiper, Least	10	5			1					
White-rumped	10		6	1	6		2	1	5	1
Baird's										
Pectoral	1	10		8	2	2	3	1	2	
Sharp-tailed										
Dunlin	80	445	42	70	1497	600	✓	950	1950	138
Sandpiper, Curlew										
Stilt	2				1					
Buff-breasted										
Ruff										
Dowitcher, Short-billed	18	5		1		1				
Long-billed		3						5	14	
Common Snipe								1		
* American Woodcock										
Phalarope, Wilson's										
Red-necked										
No. Species	18	16	6	10	13	10	10	13	12	6
No. Individuals	593	1017	132	302	2283	904		1701	2981	202
Coverage: East Pond	abcd	bcd	bcd	bcd	abcd	abcd	abcd	abcd	abcd	abcd
West Pond					e		e			

* = breeds locally () = reported by others ✓ = numbers not counted

Table 2. 1983 Arrival Dates of Adults and Juveniles Plus Five Year Span of Arrival and Average Arrival Dates

	1983		Adults		Juveniles	
	1st ad	1st juv.	5 yr. span of arr. dates (yrs. noted)	aver. arr. date	5 yr. span of arr. dates (yrs. noted)	aver. arr. date
Plover, Black-bellied	late July	(8/30)	late July*		8/30-9/11 (3)	Sept. 2
Lesser Golden-Semipalmated	8/23	9/10	8/14-25 (4)	Aug. 21	9/1-11 (3)	Sept. 7
Yellowlegs, Greater	7/9	8/22	7/9-11 (3)	July 10	8/11-22 (4)	Aug. 18
Lesser	(6/22)	8/7	6/22-30 (3)	June 27	8/7-15 (3)	Aug. 13
Ruddy Turnstone	7/1	8/6	6/26-7/1 (4)	June 29	8/1-9 (5)	Aug. 5
Red Knot	(7/20)	8/21	7/20-23 (3)	July 22	8/21-28 (3)	Aug. 24
Sanderling	7/17	8/22	7/17-22 (3)	July 19	8/18-22 (3)	Aug. 21
Sandpiper, Semipalmated	7/16	8/26	7/16-22 (3)	July 19	8/23-28 (3)	Aug. 26
Western	6/25	8/9	6/25-7/10 (4)	July 1	8/9-15 (4)	Aug. 12
Least	(7/12)	8/12	7/12-24 (3)	July 16	8/12-22 (3)	Aug. 17
White-rumped	late June	8/6	6/26-28 (3)	June 27	7/26-8/8 (4)	Aug. 3
Pectoral	(7/21)	9/18	7/18-31 (3)	July 23	9/13-10/2 (4)	Sept. 20
Dunlin	7/16	(8/26)	7/11-16 (3)	July 15	8/22-29 (3)	Aug. 26
Stilt Sandpiper	7/12	9/18	earliest 7/12**		9/5-18 (4)	Sept. 13
Dowitcher, Short-billed	7/20	8/7	7/12-20 (3)	July 16	7/26-8/22 (5)	Aug. 12
Long-billed	7/1	8/9	6/26-7/3 (4)	June 29	8/8-15 (5)	Aug. 10
	7/23	10/8	7/18-23 (3)	July 21	9/26-10/8 (3)	Oct. 2

* difficult to determine, lingering non-breeding birds present every summer.

** only scattered adults before the 2nd week of September.

**Table 3. Summary of Shorebird Surveys
1981-83 at Jamaica Bay Wildlife Refuge, New York**

	<u>June</u> <u>21-30</u>	<u>July</u> <u>1-10</u>	<u>July</u> <u>11-20</u>	<u>July</u> <u>21-31</u>	<u>August</u> <u>1-10</u>
No. Visits in Period	4	10	10	10	9
Plover, Black-bellied	1-1	1-2	5-1.4	9-10	9-75
Lesser Golden-Semipalmated		2-6	10-20	10-222	9-530
*Killdeer	4-7	10-11	10-13	10-12	9-8.6
*American Oystercatcher	3-4.3	6-4.8	8-7.4	9-6.3	6-8.5
American Avocet					
Yellowlegs, Greater	3-2.7	8-12	10-34	10-97	9-128
Lesser	1-4	9-12	10-28	10-44	9-62
Solitary Sandpiper			1-1	1-1	
*Willet	2-2.5	1-1	4-1.2	5-2.2	6-1
*Sandpiper, Spotted	1-2	7-4.1	10-4.7	10-4.6	9-3.3
Upland					1-2
Whimbrel			1-1	2-1	
Godwit, Hudsonian			4-1.5	8-2	8-2.3
Marbled		1-1		1-1	
Ruddy Turnstone			1-1	10-17	9-58
Red Knot			4-4.3	10-104	9-272
Sanderling			5-11	10-61	9-111
Sandpiper, Semipalmated	2-1.5	4-14	10-198	10-996	9-1548
Western			5-2.2	9-2.2	7-1.9
Little Stint			2-1		
Sandpiper, Least	2-3	6-16	10-86	10-79	9-62
White-rumped			1-1	4-1.5	9-4.4
Baird's					
Pectoral			7-2.7	10-2.9	5-2.4
Sharp-tailed			3-1		
Dunlin			2-1	1-1	3-1
Sandpiper, Curlew			2-1	7-1.1	6-1.2
Stilt			5-4.2	10-6.9	9-14
Buff-breasted					
Ruff		1-1	1-1		
Dowitcher, Short-billed	1-3	9-164	10-485	10-637	9-460
Long-billed			2-6	10-3.3	9-11
Common Snipe					1-1
*American Woodcock	1-1	2-1			
Phalarope, Wilson's				2-1	2-1
Red-necked					
Total Species in Period	11	14	27	26	25
Average Species/Visit	5.2	6.8	14.3	19.8	20.0
Av. Birds/Visit Censused	19	200	894	2400	3351

* = breeds locally

visits noted in period — average/visit censused

**Table 3. Summary of Shorebird Surveys
1981-83 at Jamaica Bay Wildlife Refuge, New York**

	<u>August 11-20</u>	<u>August 21-31</u>	<u>Sept. 1-10</u>	<u>Sept. 11-20</u>	<u>Sept. 21-30</u>
No. Visits in Period	10	12	11	10	8
Plover, Black-bellied	10-353	12-552	11-503	10-249	6-206
Lesser Golden- Semipalmated	1-1	3-1.3	5-1.4	9-6.6	7-5.3
*Killdeer	10-782	12-669	11-215	10-75	8-38
*American Oystercatcher	10-5.7	12-4.9	10-7.7	10-7	8-9.6
American Avocet	8-13	10-6.5	9-4.3	5-6.2	3-3
Yellowlegs, Greater		2-1	2-1	4-1	2-1
Lesser	10-182	12-288	11-257	10-268	8-64
Solitary Sandpiper	10-42	12-42	11-30	10-24	8-21
*Willet		1-1	3-1	4-1.3	
*Sandpiper, Spotted	8-1.8	10-2.3	7-3.4	7-3.9	5-3.6
Upland	9-3.2	8-2.5	11-1.3	8-1.3	5-1
Whimbrel	1-1				
Godwit, Hudsonian	3-1.7	4-1.3		4-2.8	2-3.5
Marbled	8-2.8	9-2	8-2.8	8-1.1	6-1.7
Ruddy Turnstone		1-1	9-1.3	9-1.2	5-1
Red Knot	10-107	12-44	11-18	8-9.2	4-9
Sanderling	10-387	12-213	11-54	7-76	4-73
Sandpiper, Semipalmated	10-125	12-96	10-92	10-2.4	3-1.3
Western	10-1432	12-1109	11-374	10-241	8-147
Little Stint	5-1.2	12-6.8	11-9.3	9-6	6-1.8
Sandpiper, Least					
White-rumped	10-51	12-54	11-42	10-34	8-27
Baird's	10-3.9	12-10	10-19	8-6	8-3.1
Pectoral		2-1	2-1	4-1	1-1
Sharp-tailed	5-1.6	7-4.2	8-2.5	10-4.8	8-15
Dunlin					
Sandpiper, Curlew	7-1.3	6-1.5	10-1.2	10-25	8-29
Stilt	2-2	1-1			
Buff-breasted	10-17	12-13	11-23	10-12	8-8.1
Ruff			2-1	4-1	
Dowitcher, Short-billed					
Long-billed	10-209	12-114	11-56	10-37	8-22
Common Snipe	10-14	11-8.1	11-9.5	9-3.6	5-7.8
*American Woodcock		1-1	1-1		1-1
Phalarope, Wilson's		1-1	2-1	1-1	1-1
Red-necked	6-1.3	9-1.9	1-1	4-2.5	
		2-2	7-1.7	1-1	
Total Species in Period	26	32	31	31	28
Average Species/Visit	20.3	21.3	22.5	23.4	19.2
Av. Birds/Visit Censused	3736	3266	1735	1106	524

* = breeds locally

visits noted in period — average/visit censused

**Table 3. Summary of Shorebird Surveys
1981-83 at Jamaica Bay Wildlife Refuge, New York**

No. Visits in Period	October 1-10	October 11-20	October 21-31	Maxima	
	8	9	7	No.	Date(s)
Plover, Black-bellied	8-170	9-72	7-258	1127	9/ 3/83
Lesser Golden-Semipalmated	4-2	3-1.3	1-3	21	9/11/83
*Killdeer	8-11	6-7.2	5-5.8	1203	8/18/83
*American Oystercatcher	8-8.3	8-12	5-5.2	26	7/ 9/83
	2-1.5			25	8/14/82
American Avocet	3-1	2-1		1	15x, 8/28-10/12
Yellowlegs, Greater	8-74	9-96	7-69	519	9/ 6/82
Lesser	8-15	7-16	6-7.5	102	8/ 1/82
Solitary Sandpiper				1	10x, 7/17-9/19
*Willet	6-2.2	4-1.3	4-1	6	8/22/83, 9/3/83
*Sandpiper, Spotted		2-1	2-1	8	7/18/82
Upland				2	8/ 2/81
Whimbrel				6	9/24/83
Godwit, Hudsonian	5-1.8	6-2	3-2	8	8/15/81
Marbled	3-1	4-1.8	1-2	2	9x, 9/4-10/25
Ruddy Turnstone	7-2.9	3-1.7	4-2.3	235	8/18/83
Red Knot	5-25	5-6.8	6-25	736	8/ 9/83
Sanderling	3-3.7	4-6.8	6-27	310	8/ 6/83
Sandpiper, Semipalmated	8-82	8-35	7-11	2235	8/12/83
Western	5-1.6	6-2.2	2-3	24	8/26/83, 9/17/83
Little Stint				1	7/17-22/83
Sandpiper, Least	8-9.4	4-2	2-1	315	7/18/82
White-rumped	6-6.2	9-4.4	6-5.2	58	9/ 7/81
Baird's	2-1	1-1		1	12x, 8/22-10/11
Pectoral	8-6.9	6-4.2	5-2.4	42	9/24/83
Sharp-tailed				1	7/18-24/81, 7/16/83
Dunlin	8-109	9-87	7-779	1950	11/ 8/83
Sandpiper, Curlew				2	4x, 7/23-8/16
Stilt	7-12	7-7.3	5-2.6	59	9/ 6/81
Buff-breasted				1	6x, 9/5-18
Ruff				1	7/10/82, 7/19/81
Dowitcher, Short-billed	6-15	2-3	1-1	805	8/ 1/82
Long-billed	4-5.8	7-6.3	4-6.5	22	3x, 8/2-30
Common Snipe	1-1		1-1	1	6x, 8/1-11/5
*American Woodcock		1-2	1-1	2	10/17/81
Phalarope, Wilson's	1-1			5	9/17/83
Red-necked				3	8/29/82
Total Species in Period	26	25	24		
Average Species/Visit	17.8	14.6	14.0	28	9/11/83
Av. Birds/Visit Censused	540	346	1201	5432	8/18/83

* = breeds locally

visits noted in period — average/visit censused