NOTES

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SUMMER RECOVERIES OF BANDED NEOTROPICAL MIGRANTS IN THE WEST INDIES

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Bond (1988) listed 457 species of birds that breed or are regular visitors in the West Indies. At least 192 (42%) breed in Canada and the United States and are transients or winter visitors in the Bahaman-Antellean region; no fewer than 47 of them also breed locally on the islands. The majority of the northern migrants begin arriving in August (many plovers and sandpipers as early as the beginning of July) and most depart by mid-May. Some, such as several plover and sandpiper species, occur in the West Indies throughout the year but do not breed there (Bond 1956, 1988). Although many of Bond's (1956, 1988) species accounts allude to year-round or summer occurrences by nonbreeding visitors, I am unaware of any previous comprehensive treatment documenting specific occurrences.

I examined Bird Banding Laboratory (BBL) records of recoveries in the West Indies for the years 1913-1988 and extracted those of birds banded on breeding grounds in Canada and the United States and recovered during 15 May-15 July. I omitted records involving inexact dates for May and July, several fledged birds banded well after the normal summer breeding season (to avoid the possibility of including West Indian birds that have wandered north), and recoveries of dead birds and bands obtained under unspecified conditions, which probably include mortalities outside the summer time frame.

Results of the analyses reveal 152 recoveries for 20 species, 15 of which occur in the West Indies as local breeders as well as inigrants (Table 1). A sampling bias is evident as passerines are lacking and all are waterbirds with the exception of one Merlin. Sixty-six (43%) of the 152 recoveries are birds shot presumably by hunters. Of the 138 birds presumed banded the year they were hatched (age classes, 2, 3, and 4 in the BBL code), 88 (64%) were recovered during their first or second calendar year of life and 24 others (17%) during their third calendar year. The only species that included one or more birds noted having been banded as adults or of undetermined age are Black-crowned Night-Heron, Blue-winged Teal, American Coot, Roseate Tern, and Sooty Tern. The Sooty Tern is the only species with recoveries consisting of a large number of adults and few young.

Summer occurrences of nonbreeding visitors in the West Indies are especially difficult to detect on islands that also host conspecific breeding populations as the two groups generally are indistinguishable in the field. Fifteen of the 20 species fall into this category (Table 1.)

Presumably, most if not all of the truly summering northern visitors in the Caribbean do not breed anywhere that calendar year, but some may be recruits to West Indian breeding populations, especially among wide ranging seabird species. One Sooty Tern banded as a recently fledged young in the Dry Tortugas, Florida in 1965 was recovered at

Table 1. Birds banded on breeding grounds in Canada and the United States and recovered in the West Indies during subsequent summers (15 May-15 July) from 1913-1988.

	No. of birds		${ m How}$ obtained c	w ned ^c		of	Month of recovery	ry	No. of summers
Species	ar recovery/ banding sites ^b	Ą	В	Ç		May	Jun	Jul	to recovery
Brown Pelican, Pelecanus occidentalis*	5 Cuba/4 FL		2	-		2	2		1, 3, 4(2)
	$1\mathrm{SC}$		_					П	
Little Blue Heron, Egretta caerulea*	1 HISP/1 VA				_			П	2
Tricolored Heron, $E.\ tricolor^*$	1 HISP/1 VA	_					_		4
Cattle Egret, $Bubulcus\ ibis^*$	1 Cuba/1 GA				<u>~</u>		_		2
Black-crowned Night-Heron, Nycticorax nycticorax*	1 Cuba/1 MI	7					Н		2
White Ibis, $Eudocimus$ albus*	$2 \mathrm{Cuba} / 2 \mathrm{SC}$	21					_	1	1,3
Glossy Ibis, Plegadis falcinellus*	$2\mathrm{HISP/1}\mathrm{NJJ}$	-					П		ି ଦେ
	$1\mathrm{SC}$	_				_			_
Fulvous Whistling-Duck, Dendrocygna bicolor*	2 Cuba/2 SC	61				П	-		1,2
Blue-winged Teal, Anas discors	8 Cuba/2 I A	21					21		1(2)
	1 M I	1					-		
	1 MN	П				-			6
	10H	-				-			1
	1 WI	-						_	23
	1 MAN	-					_		4
	$1 \mathrm{SAS}$	_					-		5
	9 HISP/3 ONT	П			2	-	7		1, 2, 4
	$1\mathrm{QUE}$	_					_		10
	1 MAN	٢					1		5
	1 WI				_		-		2
	1 BAHA/1 NWB	-					1		2
	1 JAMA/1 MAN	_						_	2
American Wigeon, A. americana	$2\mathrm{HISP/2}\mathrm{NY}$	2					2		5,7
Merlin, Falco columbarius	1 Cuba/1 VA				_	-			1

Table 1. (continued)

	No. of birds		${ m How}$ obtained c	w ned ^e		of	Month of recovery	Ž.	No. of summers
Species	at recovery/ banding sites ^b	A	B	၁	0	May	Jun	Jul	to recovery
American Coot, Fulica americana*	1 Cuba/1 FL	П					_		-
	1 BAHA/1 MN	Н						1	2
Laughing Gull, Larus articilla*	4 Cuba/2 FL	_		-	-	, ,-		П	1(2)
	I VA			-	-	-	-		
Caspian Tern, Sterma caspia	2 HISP/1 ONT	1					_		7
	1 MI				П	-			2
	1 Cuba/1 MI	Π					_		
Royal Tern, S. maxima*	8 JAMA/5 NC	_		1	က	87	က		1(4), 2
	2 VA			-	_		П	-	1(2)
	1 SC			-			-		П
	7 Cuba/4 NC	_		23	-	23	0		1(4)
	1 MD		_				_		21
	1 VA				-		_		2
	1 SC	-				_			1
	7 HISP/4 NC	2			01	_	ಣ		1(3), 4, 7
	2 VA				01		П	П	1, 2
	1 MD				_		_		-
	5 PUER/5 NC			1	4	87	ಣ		1(4), 2
	2 BAHA/1 NC				П		П		23
	1 SC	1					_		23
	2 VIGN/2 NC			_	-		Н	П	1(2)
	1 STMA/1 VA	-				-			-
	1 TRIN/1 SC				Н		7		1
	1 BONR/1 VA			-			1		1
Sandwich Tern, S. sandvicensis*	1 Cuba/1 NC				_	_			_

Table 1. (continued)

	No. of birds		How obtained ^c	w ned ^c		of	Month of recovery	Ę.	No. of summers
Species ^a	banding sites	A	В	0		May	Jun	Jul	to recovery ^d
Roseate Tern, $S.\ dougallii^*$	5 TRIN/5 MA	4			-	2	ಌ		1(3), 2(2)
	1 PUER/1 MA				1		Н		. 23
Common Tern, S. hirundo*	45 TRIN/28 MA	19			6	9	19	₹7	1(25), 2(2), 3
	11 NY	27		က	9	ಣ	9	2	1(9), 5, 7
	2 NJ	1		1		П	1		1, 2
	1 CT			-					
	1								
	1 ME	1		1			1		_
	1 NWB				1	-			2
	3 PUER/2 MA				2	-	_		1(2)
	1 NY				-	_			_
	2 HISP/1 ONT				1		1		
	1 NWB	1				-			1
	1 Cuba/1 ONT	_						1	1
Sooty Tern, S. fuscata*	5 VIGN/5 FL				ro	က	2		9, 14, 16(3)
	3 BAHA/3 FL			C 3	7	ಬ			6, 7, 13
	2 JAMA/2 FL		87			-	1		10, 12
	2 PUER/2 FL		87				87		11, 15
	2 TRIN/2 FL				81		2		1, 11
	1 MART/1 FL				П		Н		1
Black Skimmer, Rynchops niger	$2 \operatorname{Cuba/2 VA}$	2					73		1(2)

^bAbbreviations of recovery sites are BAHA = Bahamas, BONR = Bonaire, HISP = Hispaniola, JAMA = Jamaica, MART = Martinique, PUER = Puerto Rico, STMA = St. Martin, TRIN = Trinidad, VIGN = Virgin Islands. Banding sites in Canada (by province) are MAN = Manitoba, NWB = New Brunswick, ONT = Ontario, QUE = Quebec, SAS = Saskatchewan; United States localities are indicated by standard two-letter U.S. postal codes for states. ^aAn asterisk (*) indicates breeding also in the West Indies.

'A = shot, B = trapped and released during banding operations, C = caught in fishing gear, D = methods or conditions other than A-C. ^dNumbers in parentheses are total number of individuals; omitted when N = 1. a nest in the Exuma Cays, Bahama Islands in 1972 (Buden, in press) and two other Sooty terns banded in the Tortugas were found incubating on Saba, off St. Thomas, U. S. Virgin Islands (Norton 1986).

Many of the summer recoveries are immature birds that would ordinarily remain on their West Indian wintering grounds throughout at least their second calendar year of life. Shealer and Saliva (1992), for example, reported that very few Roseate Terns wintering in the Caribbean return to their North American breeding grounds in their first year, and Austin (1953) and Ludwig (1965) reported similar phenomena in the Common Tern and Caspian Tern, respectively. Also, Byrd (1978) suggested that some Glossy Ibises may remain on wintering grounds in the Caribbean until sexually mature, possibly up to three years.

Additionally, disease and injuries may debilitate birds to the extent they are unable to return north after overwintering in the Caribbean. Some of the "summering" visitors also may be very late spring or early fall migrants, both groups possibly including birds that for various reasons may not breed or complete breeding that season but spend at least a part of the summer on their breeding grounds. The occurrence of these and other nonbreeding visitors in the West Indies during the breeding season further underscores the need for caution when assessing the status of specific island populations when breeding is unconfirmed.

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