

MIGRATION OF BIRDS.

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Very much information which would be of great interest to ornithologists might be obtained by systematic observation of the arrival and departure of our migratory birds, the influence of temperature and the direction and force of winds upon such flights, the course the birds pursue, etc., etc. For instance if stations were appointed at Blackville, Boiestown and Fredericton in one direction and Richibucto, Moncton and St. John in the other (as it is very unlikely that birds would cross the unbroken forest between these two directions), one could easily find out the course they took, principally by their numbers, and the rapidity of their flights by the days of their first arrival at the different points. So little has been done in this line that I feel justified in contributing the following table of the spring arrivals here for the last 16 years, as I happened to notice them. It is very imperfect, as I am only an amateur, and could not devote as much time to it as it required; and the year 1900 is wanting altogether, as I was unable to attend to it at all. The asterisks in relation to the crows show where I knew myself positively that some stayed all winter, and also where, in the case of the English snipe, two stayed around an open spring during the winter of '98 and '99-'00.

The table of temperatures are the mean temperatures of the four months of five years obtained from the Meteorological Station here at Chatham, which was all I could obtain.

MEAN TEMPEERATURE FOR FOUR MONTHS MADE UP AT THE METEOROLOGICAL STATION HERE.

	1895.	1896.	1897.	1898.	1899.
February.....	13.2	14.5	16.7	18.3	12.4
March..... ..	21.3	23.9	22.9	31.2	22.6
April.....	38.7	39.6	37.1	35.5	38.5
May..... ..	54.8	50.7	50.3	51.6	50.

		'84.	'85.	'86.
Canada wild goose	<i>Branta Canadensis</i>	Mr 18	Ap 7	Mr 30
Brant	<i>Branta Bernicula</i>	Ap 24		
Crow	<i>Corvus Americanus</i>		Mr 15	Mr 3
Robin	<i>Turdus Migratorius</i>	Ap 15	Ap 19	Ap 1
Chipping sparrow	<i>Spizella Socialis</i>	Ap 17	Ap 8	Ap 13
Fox sparrow	<i>Passerella Iliaca</i>	Ap 20		
Gulls of different kinds, quite a number stay all winter around		smelt holes		
Sparrow hawk	<i>Falco Sparverius</i>	Ap 21	My 2	
Crow Black-bird	<i>Quiscalus Purpureus</i>	Ap 21	My 6	Ap 18
Song sparrow	<i>Melospiza Melodia</i>	Ap 21	Ap 17	Ap 11
American Widgeon	<i>Mareca Americana</i>	Ap 24		
Black Duck	<i>Anas Obscura</i>	Ap 24	Ap 26	
Sea Coot	<i>Oedemia Perspicillata</i>	Ap 24		
Eagle	kind unknown	My 1		
Singing Swallow	<i>Tachinetta Bicolor</i>	My 3	Ap 26	My 1
Peabody Bird	<i>Zonotrichia Albicollis</i>	My 6	My 9	Ap 27
Loon	<i>Colymbus Torquatus</i>	My 6		
Bittern	<i>Botaurus Minor</i>	My 7	Ju 4	
Kingfisher	<i>Ceryle Alcyon</i>	My 8	My 25	My 8
Purple Martin	<i>Progne Purpurea</i>	My 10	My 12	My 9
King bird	<i>Tyrannus Carolinensis</i>	My 20	My 22	My 23
Chimney swift	<i>Chaetura Pelagica</i>	My 20	My 22	My 28
Barn Swallow	<i>Hirundo Horreorum</i>	My 22	My 14	My 24
American Goldfinch	<i>Chrysomitris Tristis</i>	My 25	Ju 7	My 19
Greater Teltale	<i>Totanus Melanoleucus</i>	My 25		
Blue-eyed Yellow Warbler	<i>Dendroica Aestiva</i>	My 26	My 31	Ju 2
Bobolink	<i>Dolichonyx Oryzivorus</i>	My 27		My 23
Sandpiper	<i>Tringa Minutilla</i>	My 27		
Redstart	<i>Setophaga Ruticilla</i>	My 23		
Maryland yellow throat	<i>Geothlypis Trichas</i>	Ju 1		My 21
Night Hawk	<i>Chordeiles Virginianus</i>	Ju 1	Ju 3	
Shag	<i>Graculo Carbo</i>	My 15		
Tern	<i>Sterna Anglica</i>	My 15		
Flicker	<i>Colaptes Auratus</i>	My 15		My 19
Red eyed Vireo	<i>Vireo Olivaceus</i>	Ju 6		
Nashville Warbler	<i>Helminthophaga R. Capilla</i>	Ju 6	My 27	
Purple Finch	<i>Carpodacus Purpureus</i>	Ju 6		
Junco	<i>Junco Hyemalis</i>	Ap 8	Ap 8	Ap 11
Vesper Sparrow	<i>Pooecetes Gramineus</i>		Ap 8	Ap 12
Marsh Harrier	<i>Circus Hudsonius</i>	Ju 1	Ap 26	Ap 14
Engish Snipe	<i>Gallinago Wilsonii</i>		My 12	
Humming bird	<i>Trochilus Colubris</i>		My 31	Ju 1
Cherry bird	<i>Ampelis Cedrorum</i>		Ju 8	
O-procy	<i>Pendion Haliaetus</i>			
Green Black Caped Flycatcher	<i>Myiodyctes Pusillus</i>			
Yellow rumped warbler	<i>Dendroeca Coronata</i>			
Black polled warbler	<i>Dendroeca Striata</i>			
Brown Creeper	<i>Certhia Familiaris</i>			
Cerulean warbler	<i>Dendroeca Cerulia</i>			
Tree Sparrow	<i>Spizella Monticola</i>			
Savannah Sparrow	<i>Passerculus Savanna</i>			
Titlark	<i>Anthus Ludovicianus</i>			
Gannet	<i>Sula Bassana</i>			
Blue bird	<i>Sialia Sialis</i>			
Swamp Sparrow	<i>Melospiza Palustris</i>			
Blue Crane	<i>Ardea Herodias</i>			
Ruby crowned Kinglet	<i>Regulus Calendulus</i>			
Merganser	<i>Mergus Merganser</i>			
Wilson's Thrush	<i>Turdus Fuscescens</i>			
Least Flycatcher	<i>Empidonax Minimus</i>			
Water Thrush	<i>Seiurus Noveboracensis</i>			
Hermit Thrush	<i>Turdus Pallasii</i>			
Oven bird	<i>Seiurus Aurocapillus</i>			
Solitary Sandpiper	<i>Totanus Solitarius</i>			
Rusty Grackle	<i>Scotocophagus Ferrugineus</i>			
Spotted Sandpiper	<i>Tringoides Macularius</i>			
White eyed Vireo	<i>Vireo Noveboracensis</i>			
Broad winged Hawk	<i>Buteo Pennsylvanicus</i>			

Some stayed all Winter.

† Very few seen that year.

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'87.	'88.	'89.	'90.	'91.	'92.	'93.	'94.	'95.	'96.	'97.	'98.	'99.	'00.
Mr 14	Ap 4	Ap 5								Ap 5	Mr 23	Mr 29	Ap 4
		Ap 28											
Mr 16	Mr 3	Mr 17	Mr 17	Mr 6	Mr 6	My 16		Mr 26	Mr 9	Mr 13	Mr 12	*	
Ap 15	Ap 27	Ap 10	Ap 11	Ap 17	Ap 17	Ap 23	My 31	Ap 21	Ap 15	Ap 9	Mr 25	Ap 16	
Ap 16	Ap 28	Ap 7	Ap 14	Ap 17	Ap 17	Ap 21	Ap 23	Ap 20	Ap 18	Ap 22	Mr 29	Ap 23	
							My 3	My 1				Ap 14	
											My 23		
Ap 17	Ap 28	Ap 21	Ap 19	Ap 17	Ap 17	Ap 14	Ap 16	Ap 19		Ap 5	Mr 29	Ap 14	
Ap 23	Ap 23	Ap 15	Ap 19	Ap 17	Ap 17		Ap 16	Ap 19	Ap 13	Ap 21	Mr 29	Ap 14	
		Ap 23											
		Ap 20									Mr 14		
		Ap 23									Ap 26		
My 6	My 10	My 7	My 16	My 9	My 9	My 8	My 1				My 15	24	
My 6	My 7	Ap 28	My 11	My 1	My 1	My 3	My 3	My 6	My 4	Ap 27	My 11	My 1	
		Ap 30				My 10	My 12	My 7					
				My 29	My 29	My 28	Ju 4	Ju 2					
My 7	My 25	My 8	My 20	My 18	My 18	Ju 1	My 7	My 14	My 26	Ap 28		Ap 30	
My 2	My 5	My 10	My 17	My 26		My 12	My 12	My 6	My 10	Ap 25	My 1	Ap 23	
My 26	My 24		My 16	My 25	My 26	My 23	Ju 15	My 22	My 17		My 22	My 24	
My 16	My 30	My 16	My 16	My 26	My 26	My 20	My 1	My 7	My 17		My 15	My 12	
My 6	My 7	My 11	My 3	My 2	My 2	My 7	My 1	My 2	My 10		My 15	My 7	
My 26	My 24		My 20	My 20	My 20	My 31	Ju 1	Ju 1	Ju 12		My 29	Ju 9	
										Ap 26			
Ju 4	My 24		My 13			My 21	Ju 1	Ju 1	Ju 4		My 21		
My 25		My 22	My 21	My 29	My 29	My 28	My 28	†	My 17			Ju 3	
My 26													
	My 31	My 22	My 25	Ju 6	Ju 6	My 23	My 28	My 13	My 17		Ap 29	My 21	
	My 30		Ju 2	Ju 4	Ju 4	Ju 8	Ju 3	My 22	Ju 18		My 25	My 1	
						My 8	My 7	My 6		Ap 26	Ap 29	My 26	
	Ju 3		My 25			My 21	My 14	My 10	My 17		My 21		
My 1			My 8	My 23	My 23	My 20	My 14	My 5	My 10	Ap 28	My 22		
Ap 17	Ap 23		Ap 13	My 8	My 7	Ap 17	Ap 17	Ap 22	Ap 26		Mr 29	Ap 16	
Ap 20		Ap 12	Ap 13	Ap 17	Ap 29	Ap 17	Ap 19	Ap 21	Ap 26	Ap 26	Ap 24	Ap 23	
			My 9										
	Ap 28		My 24	My 24	My 24	Ju 1					Ap 30	*	*
My 20	My 30	My 20	Ju 2	My 29								My 26	
Ju 9	My 31			My 11	My 11	Ju 6	Ju 1	My 20	Ju 4				
Ap 29						My 4	Ap 29	Ap 22			My 14		
My 29						Ju 3							
			My 21								My 13	My 28	
			Ju 1					My 6	My 10	Ap 30	My 23	Ap 30	
				My 17	My 17	My 17	My 12	My 10	My 17				
			My 25										
								Ap 24	Ap 25				
								My 5	My 10		Ap 24	Ap 23	
								My 6					
									Ap 5				
										Ap 24			
										Ap 28	My 21		
										Ap 28	My 23		
										Ap 30	My 23		
											Ap 2		
											My 11		
											My 20	My 28	
											My 21		
											My 21		
											My 21		
											My 21	Ap 23	
											My 22		
											My 21		
											My 21		