

THE 1986 CHRISTMAS BIRD COUNTS IN EASTERN MASSACHUSETTS

by Robert H. Stymeist

The Eighty-seventh Annual Christmas Bird Count (CBC) sponsored by the National Audubon Society was held from December 17, 1986 to January 4, 1987. In 1985, there were 1504 official CBC count areas in the United States and Canada, and the 38,346 participants counted 632+ species for a total of 74,169,620 individuals.

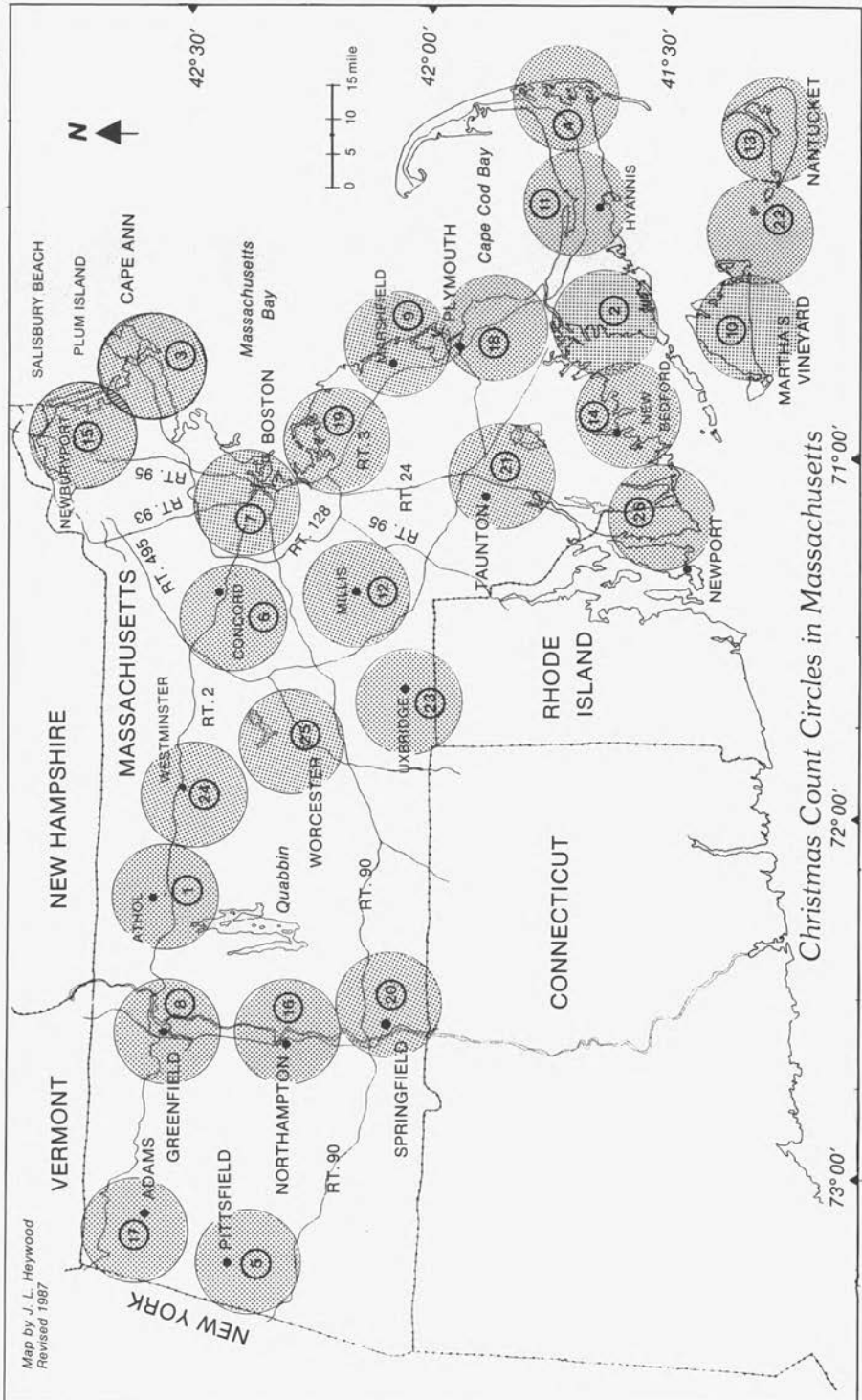
In eastern Massachusetts and a portion of Rhode Island, there are 21 count areas (see map). This summary includes the results of all the count circles with the exception of Plymouth, from which no results were received. A total of 180 species plus "Ipswich" Sparrow were recorded in our area during the three-weekend period.

The Newport, Rhode Island-Westport, Massachusetts CBC led all counts with 124 species. Cape Cod, usually the leader, came in second with 120 species. The Millis CBC boasted the highest number of participants. In 1985, Millis produced a total of 501 observers (60 field people and 441 feeder watchers), far and away the greatest number of participants in any count circle; the second highest was Greenwich, Connecticut, with 181 observers.

It was a lean year for rarities with just a few reported on the CBCs: Tundra Swan, Greater White-fronted Goose, Gyrfalcon, Thayer's Gull, and Harris' Sparrow.

The Oldsquaw count of 96,900 at Tuckernuck is probably an all-time-high count, surpassing 86,234 Oldsquaw tallied on the 1986 Nantucket CBC. The changing winter distribution of several species is dramatically revealed by the CBCs. Note especially Double-crested Cormorant with 92 individuals reported this year. In previous years compilers had to supply supporting details for such a rare winter bird. Another explosion is the Carolina Wren with no fewer than 343 individuals noted on fifteen counts. The bulk of these were reported from Newport (95), Buzzards Bay (89), and Martha's Vineyard (64).

Snowy Owls were reported on ten counts with a total of 44 individuals counted. The most, 21, in the Greater Boston CBC were chiefly found at Logan Airport. At Newburyport, 62 Great Horned Owls were counted on a calm night. Also, 10 Common Barn-Owls were tallied (6 on the Vineyard and 4 at Newburyport). A lack of snow cover and, in general, open water gave compilers reason to hope for the best. There was a mediocre winter finch flight, and there were few lingerers. On Cape Cod, Red-breasted Mergansers were down 90% from last year's record, and the count of Dunlin was the lowest since 1942! The



Eurasian Jackdaw could not be found on a count day on Nantucket and was last seen in mid-December.

It requires years of experience with an area to properly compile and evaluate CBC records, and I wish to thank all of the compilers who contributed their expertise to prepare the results for this summary. They are as follows: **Robert Coyle**, Athol (December 20); **Richard Harlow**, Buzzards Bay (December 20); **John Nove**, Cape Ann (December 21); **Blair Nikula**, Cape Cod (December 21); **Richard Walton**, Concord (December 28); **Robert Stymeist**, Greater Boston (December 21); **Warren Harrington**, Marshfield (December 28); **Susan Whiting**, Martha's Vineyard (December 28); **Janet Aylward**, mid-Cape Cod (December 27); **Brian Cassie**, Millis (December 20); **Edith Andrews**, Nantucket (January 3); **Gil Fernandez**, New Bedford (December 29); **James Berry**, Newburyport (December 28); **Sibley Higginbotham**, Quincy (December 20); **John Kricher**, Taunton-Middleboro (December 27); **Marcia Litchfield**, Tuckernuck (January 1); **Richard Hildreth**, Uxbridge (January 4); **John Williams**, Westminster (December 27); **Dave Emerson**, Westport-Newport (December 20); **Fran McMenemy**, Worcester (December 20).

Robert H. Stymeist, a staff member since its beginning fourteen years ago and former president of *Bird Observer*, is currently the president of the Brookline Bird Club and treasurer of the Nuttall Ornithological Club. During the past year, Bob has spent his vacations birding in the tropics with trips to Costa Rica (second time), Peru, and two trips to Mexico. One highlight of these travels: he saw 52 different species of hummingbirds in 1986.

Map on facing page: Each Christmas Count Circle was located by the latitude and longitude (in degrees and minutes) of its center as given in the July-August 1984 issue of *American Birds*. (The Newburyport circle, 15, was relocated in 1986 so that its center is 42°45'N, 70°54'W.)

Athol (1), Buzzards Bay (2), Cape Ann (3), Cape Cod (4), Central Berkshire (5), Concord (6), Greater Boston (7), Greenfield (8), Marshfield (9), Martha's Vineyard (10), Mid Cape Cod (11), Millis (12), Nantucket (13), New Bedford (14), Newburyport (15), Northampton (16), Northern Berkshire (17), Plymouth (18), Quincy (19), Springfield (20), Taunton-Middleboro (21), Tuckernuck Island (22), Uxbridge (23), Westminster (24), Worcester (25) and Westport, MA/Newport, RI (26).

species	Athol	B. B.	C. Ann	C. Cod	Conc.	Gr. Bos.	Marsh.	M. V.	Mid C.
Red-throated Loon	0	2	2	20	0	0	2	119	0
Common Loon	0	49	69	32	0	4	44	494	19
Pied-billed Grebe	0	6	0	32	1	5	0	4	8
Horned Grebe	1	199	49	10	0	65	12	64	50
Red-necked Grebe	0	2	13	11	0	3	15	16	0
Northern Gannet	0	0	2	498	0	0	1	3	0
Great Cormorant	0	79	316	55	0	243	15	400	27
Double-crested Cormorant	0	16	0	15	0	10	0	1	4
Great Blue Heron	0	53	8	84	6	22	31	130	51
Green Heron	0	0	0	0	0	0	0	0	0
Great Egret	0	1	0	0	0	0	0	0	0
Black-crowned Night-Heron	0	0	0	12	0	1	0	1	2
Tundra Swan	0	0	0	0	0	0	0	3	0
Mute Swan	0	64	11	11	0	0	12	289	38
Greater White-fronted Goose	0	0	0	0	0	0	0	0	0
Snow Goose	0	0	0	0	0	0	0	2	0
Brant	0	493	0	334	0	278	59	93	167
Canada Goose	0	977	572	2691	2680	894	579	2540	801
Wood Duck	0	0	1	0	1	0	0	3	1
Green-winged Teal	0	1	0	6	1	3	0	19	17
American Black Duck	18	1243	699	3956	247	1420	1467	2106	1178
Mallard	9	388	493	97	469	1409	295	452	638
Northern Pintail	0	0	0	0	0	2	3	2	35
Blue-winged Teal	0	0	0	0	0	0	0	0	1
Northern Shoveler	0	1	0	0	0	0	0	1	0
Gadwall	0	0	10	0	0	0	3	24	6
Eurasian Wigeon	0	0	1	0	0	0	0	0	0
American Wigeon	0	11	0	10	0	40	1	29	8
Canvasback	0	190	0	142	0	3	0	56	276
Redhead	0	50	0	0	0	0	0	71	10
Ring-necked Duck	0	0	5	70	4	10	26	12	55
Greater Scaup	0	3209	0	118	0	1226	7	1532	275
Lesser Scaup	0	0	1	0	0	3	0	1	10
Common Eider	0	1592	171	3004	0	2524	12156	2214	877
King Eider	0	0	0	0	0	1	0	0	0
Harlequin Duck	0	0	0	1	0	2	0	20	0
Oldsquaw	0	275	47	60	0	7	29	9	27
Black Scoter	0	58	17	38	0	1	0	9608	5
Surf Scoter	0	353	16	7	0	0	6	103	20
White-winged Scoter	0	575	104	416	0	77	252	13950	98
Common Goldeneye	49	837	542	467	8	660	228	2479	542
Barrow's Goldeneye	0	1	0	2	0	2	1	0	0
Bufflehead	0	2081	291	1701	2	908	229	2132	920
Hooded Merganser	76	171	0	26	3	50	0	62	47
Common Merganser	48	100	17	426	45	83	1	35	110
Red-breasted Merganser	0	853	395	1154	0	941	305	2302	217
Ruddy Duck	0	1	0	13	0	90	0	42	0
Bald Eagle	2 ad	0	0	0	0	0	0	0	0
Northern Harrier	0	9	2	13	0	5	15	18	15
Sharp-shinned Hawk	1	8	1	12	3	5	3	9	5
Cooper's Hawk	0	0	2	1	0	1	1	1	1
Northern Goshawk	0	2	0	2	0	0	0	0	0
Red-shouldered Hawk	0	0	0	1	0	0	0	0	0

species	Millis	Nant.	N. B.	Newbpt.	Quin.	Tau-Mb.	Tuck.	Uxbr.	Westm.	Westp.	Worc.
RTLO	0	37	1	23	11	0	9	0	0	40	0
COLO	0	62	8	104	18	1	30	0	0	97	4
PBGR	0	8	0	0	1	1	0	0	0	3	2
HOGR	0	5	116	171	91	1	4	0	0	143	6
RNGR	0	39	1	7	13	0	6	0	0	6	0
NOGA	0	106	0	13	14	0	1	0	0	4	0
GRCO	1	141	1	3	434	3	25	0	0	3380	0
DCCO	1	13	23	0	2	0	0	0	0	6	1
GBHE	3	10	23	8	20	2	3	5	0	58	3
GRHE	0	0	1	0	0	0	0	0	0	0	0
GREG	0	0	0	0	0	0	0	0	0	1	0
BCNH	0	2	0	0	1	0	10	0	0	0	0
TUSW	0	0	0	0	0	0	0	0	0	0	0
MUSW	0	19	76	6	3	5	0	0	0	265	0
GWFG	0	0	0	0	0	0	0	0	0	0	1
SNGO	0	0	0	0	0	0	0	0	0	6	1
BRAN	0	57	59	0	889	0	0	0	0	34	0
CAGO	1406	263	1004	4103	463	1007	3	390	0	7258	1081
WODU	4	0	0	1	0	2	0	6	0	0	4
GWTE	0	6	0	1	23	0	0	0	0	19	0
ABDU	108	312	563	2648	1331	211	9	122	44	1346	136
MALL	937	351	531	509	464	241	0	262	70	245	330
NOPI	0	5	0	0	0	0	0	0	0	34	0
BWTE	0	0	0	0	0	0	0	0	0	4	0
NOSH	0	1	0	0	0	0	0	0	0	0	0
GADW	0	2	0	5	2	4	7	1	0	0	0
EUWI	0	1	0	0	0	0	0	0	0	0	0
AMWI	0	14	8	0	13	0	23	0	0	15	0
CANV	3	124	0	0	23	239	0	0	0	693	0
REDH	1	47	0	0	2	0	0	0	0	2	0
RNDU	31	9	0	0	24	11	0	0	0	0	3
GRSC	0	399	918	7	431	0	0	0	0	1799	22
LESC	0	21	1769	0	0	98	0	0	0	50	0
COEI	0	3673	57	54	2869	0	445	0	0	242	0
KIEI	0	0	0	0	1	0	0	0	0	5	0
HADU	0	8	0	0	0	0	0	0	0	44	0
OLDS	0	50323	63	163	119	0	96900	0	0	3	0
BLSC	0	378	2	46	0	0	26	0	0	134	0
SUSC	0	120	171	2	5	0	19	0	0	74	0
WWSC	0	1529	44	852	471	0	103	0	0	115	0
COGO	0	582	488	621	908	48	319	3	0	1052	28
BAGO	0	5	4	1	4	0	0	0	0	0	0
BUFF	6	317	610	235	795	55	17	0	0	568	0
HOME	3	15	4	0	40	24	0	0	0	13	3
COME	23	29	5	64	45	121	1	17	0	315	66
RBME	13	8636	251	450	1362	0	2890	0	0	1144	1
RUDU	0	9	1	0	44	5	0	0	0	243	0
BAEA	0	0	0	2 ad	0	0	0	0	0	0	0
NOHA	0	26	4	18	5	4	10	1	0	25	0
SSHA	8	3	1	9	4	1	0	2	1	6	5
COHA	0	1	0	1	0	0	0	0	0	1	0
NOGO	2	0	0	3	0	1	0	0	0	2	0
RSHA	1	0	0	0	0	1	0	1	0	0	0

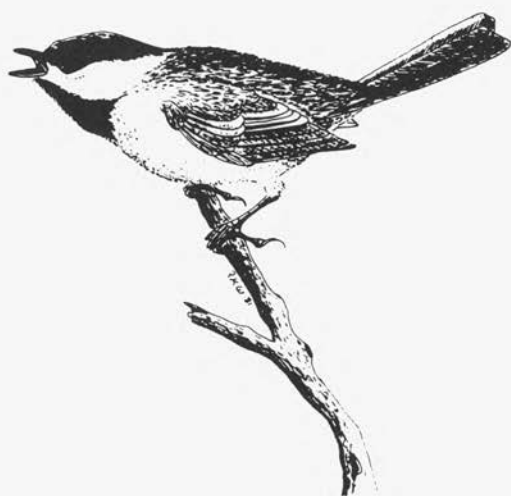
species	Athol	B. B.	C. Ann	C. Cod	Conc.	Gr. Bos.	Marsh.	M. V.	Mid C.
Red-tailed Hawk	0	3	24	14	72	39	14	40	13
Rough-legged Hawk	0	1	2	0	2	1	6	4	1
American Kestrel	0	9	6	9	16	14	20	5	5
Merlin	0	0	0	3	0	1	0	0	1
Peregrine Falcon	0	1	0	0	0	0	0	1	0
Gyrfalcon	0	0	0	0	0	0	00	0	0
Ring-necked Pheasant	1	4	10	1	22	118	4	12	1
Ruffed Grouse	1	2	2	1	15	3	5	0	0
Wild Turkey	5	0	0	0	0	0	0	0	0
Northern Bobwhite	0	40	13	24	0	0	0	42	46
Virginia Rail	0	1	0	8	0	1	6	1	4
Sora	0	0	0	0	0	0	1	0	0
Common Moorhen	0	0	0	0	0	0	0	1	0
American Coot	0	4	0	16	0	22	2	0	7
Black-bellied Plover	0	0	0	5	0	0	2	56	0
Killdeer	0	4	0	0	0	1	2	0	1
Greater Yellowlegs	0	0	0	0	0	1	0	0	3
Ruddy Turnstone	0	0	0	0	0	0	0	0	0
Red Knot	0	0	0	2	0	0	0	5	0
Sanderling	0	35	9	43	0	0	1	131	33
Western Sandpiper	0	0	0	1	0	0	0	0	0
Purple Sandpiper	0	0	59	0	0	51	153	2	0
Dunlin	0	28	55	11	0	41	229	75	28
dowitcher species	0	0	0	0	0	0	0	0	1
Common Snipe	0	11	5	6	0	3	1	0	1
American Woodcock	0	1	0	0	0	0	0	0	1
Laughing Gull	0	0	0	0	0	1	1	0	0
Little Gull	0	0	0	0	0	0	0	0	0
Common Black-headed Gull	0	0	0	0	0	12	0	0	0
Bonaparte's Gull	0	40	147	14	0	2841	57	16	2
Ring-billed Gull	2	301	302	247	26	2332	252	261	407
Herring Gull	625	5332	24178	15510	1388	7338	9123	3780	2611
Thayer's Gull	0	0	0	0	0	0	0	0	0
Iceland Gull	0	0	14	5	0	3	0	1	0
Lesser Black-backed Gull	0	0	0	1	0	0	0	0	1
Glaucous Gull	0	0	2	0	0	0	0	0	0
Great Black-backed Gull	28	574	9597	1538	392	762	637	478	771
Black-legged Kittiwake	0	0	12	3137	0	2	0	0	0
Thick-billed Murre	0	0	1	0	0	0	0	0	0
Razorbill	0	0	8	2240	0	1	0	1	0
Black Guillemot	0	0	9	1	0	0	0	0	0
Rock Dove	322	334	359	113	922	3542	271	48	164
Mourning Dove	271	319	433	330	1520	228	239	624	146
Common Barn-Owl	0	0	0	0	0	0	0	6	0
Eastern Screech-Owl	0	7	16	2	32	31	15	30	3
Great Horned Owl	0	3	8	8	18	11	9	0	2
Snowy Owl	0	1	3	1	0	21	1	1	2
Barred Owl	1	0	1	0	2	1	0	0	0
Long-eared Owl	0	0	0	0	0	2	0	0	0
Short-eared Owl	0	7	1	4	0	2	0	4	0
Northern Saw-whet Owl	0	0	0	0	0	0	0	3	0
Belted Kingfisher	0	25	4	21	10	7	10	23	26
Red-bellied Woodpecker	0	1	1	0	1	0	0	7	0

species	Millis	Nant.	N. B.	Newbpt.	Quin.	Tau-Mb.	Tuck.	Uxbr.	Westm.	Westp.	Worc.
RTHA	50	24	6	45	16	25	2	15	2	30	11
RLHA	3	4	0	7	1	3	2	0	0	3	0
AMKE	20	13	5	17	9	14	2	7	0	34	4
MERL	0	4	0	1	0	2	0	0	0	1	0
PEFA	0	1	0	0	0	0	1 ad	0	0	0	0
GYRF	0	0	0	0	0	0	0	0	0	1	0
RNPH	93	22	2	11	7	0	2	0	1	10	7
RUGR	17	0	0	8	6	4	0	2	6	2	2
WITU	0	0	0	0	0	0	0	0	0	0	0
NOBO	20	0	0	0	0	0	0	0	0	0	0
VIRA	0	0	0	0	0	1	0	0	0	8	0
SORA	0	0	0	0	0	0	0	0	0	0	0
COMO	0	0	0	0	0	0	0	0	0	0	0
AMCO	0	14	5	2	68	0	0	0	0	57	0
BBPL	0	7	1	0	0	0	0	0	0	0	0
KILL	1	0	0	0	0	0	0	0	0	1	0
GRYE	0	0	0	0	0	0	0	0	0	0	0
RUTU	0	18	22	0	0	0	0	0	0	0	0
REKN	0	0	0	0	0	0	0	0	0	0	0
SAND	0	127	0	32	102	0	11	0	0	178	0
WESA	0	0	0	0	0	0	0	0	0	0	0
PUSA	0	35	0	0	235	0	0	0	0	81	0
DUNL	0	2	114	0	217	0	0	0	0	152	0
dow sp.	0	0	0	0	0	0	0	0	0	0	0
COSN	0	0	0	9	0	0	0	0	0	14	0
AMWO	0	0	0	0	0	0	0	0	0	1	0
LAGU	0	1	0	0	0	0	0	0	0	0	0
LIGU	0	0	0	0	1	0	0	0	0	0	0
CBHG	0	0	0	0	1	0	0	0	0	0	0
BOGU	0	600	71	206	1227	0	32	0	0	193	0
RBGU	380	49	627	361	820	460	2	42	42	1520	357
HEGU	4300	16535	3301	3951	6760	1311	537	370	1702	2695	14458
THGU	0	1	0	0	0	0	0	0	0	0	0
ICGU	0	49	0	28	3	0	0	0	2	1	1
LBBG	0	1	0	0	0	0	0	0	0	0	0
GLGU	0	4	0	1	0	0	0	0	0	0	0
GBBG	300	5534	176	562	788	320	458	135	406	357	2938
BLKI	0	122	0	6	5	0	91	0	0	3	0
TBMU	0	1	0	2	2	0	0	0	0	0	0
RAZO	0	15	0	1	0	0	35	0	0	0	0
BLGU	0	9	0	0	0	0	0	0	0	0	0
RODO	1030	11	460	420	340	431	0	624	169	304	468
MODO	1544	271	428	736	74	587	0	291	239	725	266
COBO	0	0	0	0	0	0	0	0	0	4	0
EASO	11	0	1	32	11	17	0	6	0	15	0
GHOW	25	0	7	62	2	10	0	11	0	11	1
SNOW	0	2	0	10	2	0	0	0	0	0	0
BAOW	4	0	1	1	0	1	0	0	5	2	0
LEOW	0	0	0	0	0	1	0	0	0	2	0
SEOW	0	3	0	1	0	1	1	0	0	1	0
NSWO	1	1	1	4	1	2	0	0	0	0	0
BEKI	3	1	5	6	3	7	0	6	0	11	3
RBWO	0	0	0	0	0	0	0	0	0	0	0

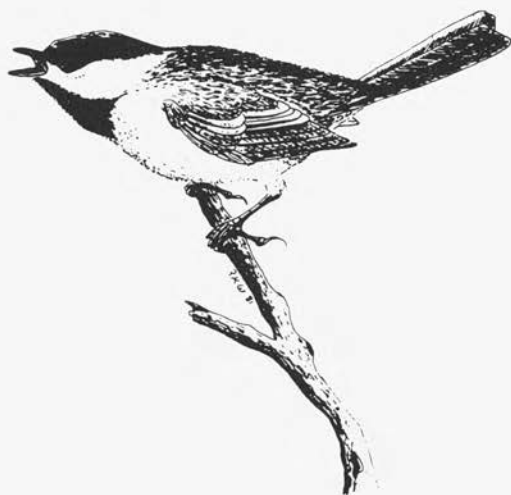
species	Athol	B. B.	C. Ann	C. Cod	Conc.	Gr. Bos.	Marsh.	M. V.	Mid C.
Yellow-bellied Sapsucker	0	0	0	0	0	0	0	0	0
Downy Woodpecker	42	57	49	38	335	138	41	47	33
Hairy Woodpecker	19	13	9	5	93	22	9	6	3
Northern Flicker	0	48	19	111	9	13	18	174	53
Pileated Woodpecker	1	0	5	0	3	0	0	0	0
Eastern Phoebe	0	0	0	0	0	0	0	0	0
Horned Lark	0	4	81	33	12	23	48	0	15
Blue Jay	450	1104	658	436	1190	398	229	554	352
American Crow	137	605	655	353	1891	1247	260	997	456
Fish Crow	0	0	0	0	35	0	0	0	0
Common Raven	2	0	0	0	0	0	0	0	0
Black-capped Chickadee	867	1531	749	353	2557	887	360	838	489
Tufted Titmouse	28	183	151	35	630	198	84	0	48
Red-breasted Nuthatch	16	19	25	7	16	9	1	55	38
White-breasted Nuthatch	57	46	67	28	350	104	28	72	25
Brown Creeper	9	7	6	7	61	49	4	3	15
Carolina Wren	0	89	1	15	1	6	5	64	2
House Wren	0	0	0	0	0	0	1	0	0
Winter Wren	0	3	2	1	2	2	1	3	0
Marsh Wren	0	0	0	2	0	1	1	0	1
Golden-crowned Kinglet	46	219	61	42	153	204	36	32	34
Ruby-crowned Kinglet	0	2	0	2	0	0	0	0	1
Eastern Bluebird	0	0	0	0	0	0	0	3	0
Hermit Thrush	0	22	0	5	0	0	1	5	2
American Robin	4	433	22	397	4	112	168	415	413
Gray Catbird	0	6	0	7	1	0	1	27	2
Northern Mockingbird	10	136	81	90	188	131	40	58	55
Brown Thrasher	0	1	0	0	1	0	0	1	0
Cedar Waxwing	36	116	133	85	157	6	29	7	163
Northern Shrike	1	0	1	4	2	0	1	0	2
European Starling	853	1419	5511	6624	4443	165955	2096	3235	3542
Orange-crowned Warbler	0	1	0	0	0	1	0	0	0
Yellow-rumped Warbler	0	112	71	676	0	7	61	853	171
Pine Warbler	0	2	0	4	1	0	0	1	1
Palm Warbler	0	3	0	2	0	2	0	0	1
Common Yellowthroat	0	0	1	0	1	0	0	1	0
Wilson's Warbler	0	0	0	0	0	0	0	0	0
Yellow-breasted Chat	0	2	0	1	0	0	0	0	0
Northern Cardinal	39	290	101	186	307	136	36	111	111
Indigo Bunting	0	0	0	0	0	0	1	0	0
Dickcissel	0	0	0	1	0	0	0	0	0
Rufous-sided Towhee	0	11	0	5	1	0	1	8	0
American Tree Sparrow	115	73	162	33	511	279	70	39	49
Chipping Sparrow	0	1	0	1	0	0	0	0	0
Field Sparrow	0	61	1	1	14	15	9	26	3
Lark Sparrow	0	0	0	0	0	0	0	0	0
Savannah Sparrow	0	0	0	6	4	7	2	9	9
"Ipswich" Sparrow	0	0	1	5	0	1	3	6	2
Sharp-tailed Sparrow	0	0	0	1	0	1	4	0	9
Seaside Sparrow	0	0	0	1	0	0	0	0	0
Fox Sparrow	0	1	0	0	2	1	0	3	0
Song Sparrow	2	290	55	284	153	278	130	192	159
Swamp Sparrow	0	17	1	13	18	3	18	17	19

species	Millis	Nant.	N. B.	Newbpt.	Quin.	Tau-Mb.	Tuck.	Uxbr.	Westm.	Westp.	Worc.
YBSA	0	0	0	0	0	0	0	0	0	0	1
DOWO	396	1	45	125	28	52	0	70	63	44	51
HAWO	85	3	5	16	2	2	0	20	28	1	8
NOFL	15	38	22	35	9	23	12	4	0	96	1
PIWO	0	0	0	2	0	0	0	0	1	0	3
EAPH	0	0	0	0	0	0	1	0	0	0	0
HOLA	0	7	19	348	4	4	0	65	0	209	7
BLJA	754	16	350	1443	140	747	3	172	389	232	72
AMCR	1800	389	230	860	456	441	13	271	169	549	324
FICR	52	0	0	0	0	0	0	0	0	0	0
CORA	0	0	0	0	0	0	0	0	2	0	0
BCCH	3414	109	344	1412	278	540	7	631	765	311	688
TUTI	1001	0	152	233	60	246	0	189	32	47	106
RBNU	14	25	2	68	4	0	1	2	3	24	5
WBNU	443	0	62	140	27	60	0	92	101	21	87
BRCR	80	0	4	23	6	4	0	6	17	4	21
CAWR	4	0	37	1	2	19	0	0	0	95	2
HOWR	0	0	0	0	0	0	0	0	0	1	0
WIWR	0	0	0	0	1	0	0	0	0	2	1
MAWR	0	4	0	1	0	0	0	0	0	1	0
GCKI	247	1	19	148	54	32	0	133	30	43	22
RCKI	0	1	1	0	0	0	3	0	0	4	0
EABL	0	0	0	0	0	0	0	5	0	1	0
HETH	0	0	1	1	1	0	0	0	0	6	0
AMRO	3	657	150	136	28	106	1	13	1	660	1
GRCA	0	4	2	0	0	1	0	0	0	27	0
NOMO	133	7	50	138	45	66	0	43	7	141	30
BRTH	0	0	0	0	0	0	0	0	0	0	0
CEWA	142	32	96	248	0	53	0	50	15	0	48
NOSH	2	2	0	4	0	0	0	2	2	0	2
STAR	4900	6205	1624	7583	70000	4997	0	2249	872	16808	4392
OCWA	0	1	0	0	0	0	0	0	0	2	0
YRWA	1	367	55	52	88	118	41	15	0	242	0
PIWA	0	11	0	0	0	0	0	0	0	0	0
PAWA	0	4	0	1	0	0	4	0	0	2	0
COYE	0	0	0	0	0	0	1	0	0	2	0
WIWA	0	0	0	0	0	0	0	0	0	1	0
YBCH	0	0	0	0	0	0	0	0	0	0	0
NOCA	291	31	113	138	40	71	1	132	17	153	50
INBU	0	0	0	0	0	0	0	0	0	0	0
DICK	0	0	0	0	0	0	0	0	0	0	0
RSTO	1	0	4	0	0	0	0	0	0	22	0
ATSP	283	5	75	742	120	223	0	416	179	122	156
CHSP	0	0	0	0	0	0	0	3	0	1	0
FISP	8	0	14	6	13	54	0	31	3	47	2
LASP	0	0	0	0	0	1	0	0	0	0	0
SASP	1	13	7	1	3	7	12	2	0	61	0
IPSP	0	0	0	1	0	0	3	0	0	1	0
STSP	0	0	0	0	0	0	0	0	0	0	0
SESP	0	0	0	0	0	0	0	0	0	0	0
FOSP	6	0	2	0	0	0	0	1	0	1	0
SOSP	74	78	99	109	56	67	29	88	9	259	48
SWSP	13	0	0	5	3	5	1	1	0	79	2

species	Athol	B. B.	C. Ann	C. Cod	Conc.	Gr. Bos.	Marsh.	M. V.	Mid C.
White-throated Sparrow	6	279	27	186	136	117	25	159	68
White-crowned Sparrow	0	1	0	0	0	2	0	0	0
Harris' Sparrow	0	0	0	0	0	0	0	0	0
Dark-eyed Junco	135	181	191	12	829	496	118	23	21
Lapland Longspur	0	0	1	0	0	9	0	0	0
Snow Bunting	3	0	84	88	0	30	7	0	5
Red-winged Blackbird	0	6	0	2	1	14	43	0	2
Eastern Meadowlark	0	9	0	8	0	10	12	32	11
Rusty Blackbird	0	0	1	0	0	0	45	0	0
Common Grackle	1	2	1	0	3	6	5	3	2
Brown-headed Cowbird	0	0	0	1	3	1	3	0	0
Northern Oriole	0	0	0	1	1	0	0	0	2
Pine Grosbeak	0	0	0	0	6	0	0	0	0
Purple Finch	19	22	34	11	64	4	13	2	1
House Finch	166	740	476	736	658	424	299	535	230
Red Crossbill	0	1	0	0	0	0	0	0	0
White-winged Crossbill	0	0	1	0	0	0	0	0	0
Common Redpoll	323	14	9	19	12	135	1	26	0
Pine Siskin	8	4	21	7	232	41	28	47	8
American Goldfinch	38	225	229	138	602	255	92	219	209
Evening Grosbeak	1124	86	46	22	360	35	90	1	29
House Sparrow	364	972	832	353	1171	768	246	142	386
number of species	48	110+	98+	120+	75	112+	102	114+	107+
total birds	6381	30507	49770	50348	25132	201014	22683	56160	18814



species	Millis	Nant.	N. B.	Newbpt.	Quin.	Tau-Mb.	Tuck.	Uxbr.	Westm.	Westp.	Worc.
WTSP	20	22	135	51	25	41	7	8	10	264	8
WCSP	1	0	0	0	0	0	0	0	0	12	0
HASP	0	1	0	0	0	0	0	0	0	0	0
DEJU	1012	19	98	316	77	288	0	411	123	171	136
LALO	0	1	0	69	0	0	0	0	0	0	0
SNBU	0	1	0	131	2	0	0	0	1	19	1
RWBL	1	16	0	0	2	0	0	0	1	5	2
EAME	1	14	0	1	0	24	8	0	0	65	0
RUBL	1	0	0	0	0	0	0	0	1	1	0
COGR	1	16	0	4	0	0	0	0	0	181	2
BHCO	1	1	0	0	2	10	0	0	2	100	0
NOOR	0	0	0	0	0	0	0	0	0	0	0
PIGR	0	0	0	0	0	0	0	0	0	0	0
PUFI	53	2	71	28	1	5	0	14	1	1	1
HOFI	817	74	294	457	169	161	0	229	181	549	458
RWCR	0	0	0	0	0	0	0	0	0	0	0
WWCR	0	0	0	1	0	0	0	0	0	0	0
CORE	0	17	0	24	47	0	2	26	365	4	97
PISI	38	115	137	90	12	2	5	91	34	1	43
AMGO	523	15	99	585	74	116	0	150	67	608	213
EVGR	144	0	69	102	11	115	0	183	925	14	207
HOSP	1080	108	196	888	148	423	0	498	416	223	371
# of species	75	113	85	100+	99	76	54	58	47	124+	68
total birds	28209	99622	16723	33419	93684	14407	102191	8635	7521	47903	27882



Results of 1986 Cape Cod Waterfowl Survey by Township

	Provincetown	Truro	Wellfleet	Eastham	Orleans	Chatham	Brewster	Harwich	Dennis	Yarmouth	Barnstable	Sandwich	Mashpee	Falmouth	Bourne	TOTALS	% change
Common Loon	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	5	-38
Pied-billed Grebe	0	1	5	0	13	13	3	5	0	3	7	1	9	3	0	63	+11
Horned Grebe	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Tundra Swan	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	
Mute Swan	0	0	0	4	0	0	0	0	11	8	12	4	38	38	3	118	+57
Canada Goose	0	8	0	0	12	28	39	28	266	88	192	156	16	332	0	1165	-23
Wood Duck	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	
Green-winged Teal	0	0	0	0	0	0	0	5	0	7	16	0	0	4	0	32	-16
American Black Duck	12	3	1	65	166	18	187	17	33	128	105	35	9	227	0	1006	-04
Mallard	8	33	0	2	95	21	16	45	58	226	290	329	106	255	133	1617	-07
Northern Pintail	0	0	0	0	0	0	0	0	0	64	0	3	0	0	0	67	-26
Northern Shoveler	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
Gadwall	0	0	0	0	0	0	0	0	0	4	0	14	0	0	0	18	+82
American Wigeon	0	0	1	8	0	3	0	0	0	0	3	3	0	20	0	38	+65
Canvasback	0	0	0	8	0	0	73	4	248	576	13	0	5	56	0	983	-16
Redhead	0	0	0	0	0	0	3	0	0	10	0	0	0	24	0	37	+1750
Ring-necked Duck	0	6	0	54	9	2	0	0	0	13	18	29	0	16	8	155	-08
scap species	23	0	0	3	7	3	73	91	0	104	94	0	3	2930	0	3331	
Greater Scaup	0	0	0	0	0	0	0	0	125	125	116	1	0	1	0	368	+32
Lesser Scaup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Common Goldeneye	0	0	9	0	0	1	9	41	0	0	9	23	83	59	0	234	+31
Bufflehead	39	0	2	28	12	39	62	75	58	213	136	37	48	395	5	1149	+40
Hooded Merganser	0	0	0	18	9	2	0	0	0	16	17	0	0	50	0	112	-65
Common Merganser	1	0	0	0	1	0	46	28	0	0	0	4	1	3	0	84	-71
Red-breasted Merganser	0	0	0	0	0	0	0	0	0	5	8	0	0	49	0	62	-24
Ruddy Duck	0	0	0	4	2	0	8	0	0	0	0	0	0	0	0	14	-22
American Coot	0	0	0	0	1	7	1	0	1	0	0	20	1	7	0	38	-55
Total number of birds	83	51	18	196	327	137	521	343	800	1590	1038	660	319	4470	149	10702	+02
Number of ponds	8	13	11	6	10	8	12	22	15	18	38	14	10	47	7	239	+02
Average birds per pond	10.4	3.9	1.6	32.7	32.7	17.1	43.4	15.6	53.3	88.3	27.3	47.1	31.9	95.1	21.3	44.8	+02
Total species	5	5	5	11	11	11	13	11	8	15	16	15	11	18	4	25	-14
Number of observers	2	2	2	2	2	1	1	3	3	4	5	4	1	6	2	26	-16