THE CONNECTICUT WARBLER

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ABOUT OUR COVER ARTIST:

Paul Carrier

"Black Scoter (*Melanitta nigra*)"

Again we call upon Paul for our cover illustration. This is his third front cover drawing for "The Warbler." Besides having a deep interest in birds, he enjoys all aspects of nature. He leads field trips, including spring and fall hawk watches for the Hartford Audubon Society and illustrates the front cover of their bi-monthly newsletter. He has also illustrated several books. Paul has his own advertising and design studio in Harwinton, Connecticut.

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Contents

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FIFTH REPORT OF THE CONNECTICUT RARE RECORDS COMMITTEE

George A. Clark, Jr.[1] and Louis R. Bevier[2]

This report contains 26 records of 23 species that have been reviewed by the Connecticut Rare Records Committee (hereafter the CRRC or the Committee). The 18 accepted records of 16 species represent an acceptance rate of about 70%. A great majority of the records (16) were received from coastal localities, and the overall distribution of *accepted* records was heavily in favor of the western and southwestern portions of the state, areas receiving the greatest coverage by observers—New Haven County (6); Litchfield County (5), Fairfield County (4). The records reviewed in this report span dates from 15 December 1973 to 15 December 1991, although most (21) are from 1989 to 1991.

We continue to encourage birders to support the CRRC review process by submitting written reports and/or photographs to the current CRRC Secretary, Louis Bevier, P.O. Box 665, Storrs, CT 06268. This process is carried out by similar committees in most states and provinces of North America (Roberson 1990), and we believe that the decisions provide highly qualified and standardized assessments regarding the validity of records. These decisions are not the final word on the validity of the record but are the Committee's best judgment based on the evidence provided; questions of identification and origin may be reviewed again in the light of new evidence or information.

Evidence for a record may be of a variety of kinds. Specimens, such as are kept in museums, constitute one important form of evidence, but only a minority of new records, and none in this report, are documented in this way. Photographs and tape recordings are frequently of major importance as indicated in the discussions of the records that follow. Detailed written notes, however, remain extremely important; such notes can capture details that may be missed by specimens, photography, and tape recordings. Basic information for notes should include locality, date, names of observers, conditions of observation, characteristics used in identification, and characteristics used to eliminate alternative possible species. Ideally, the notes should contain more than simply a record of presence or absence of field marks currently considered critical in identification. As complete a description as possible may ultimately provide the most useful record. As in the case of the *Aechmophorus* grebe (Western/Clark's

Grebe) discussed below, ideas as to what constitutes a species may change over the years, and thorough descriptions provide a potential for future identifications of species not currently recognized as distinct.

State List and CRRC Review List. This report provides details on five additions to the Connecticut state list: Sandwich Tern (*Sterna sandvichensis*), Rufous Hummingbird (*Selasphorus rufus*), Tropical Kingbird (*Tyrannus melancholicus*), Bell's Vireo (*Vireo bellii*), and Golden-crowned Sparrow (*Zonotrichia atricapilla*). Two species formerly treated as hypothetical (supported by accepted records with written details only) are elevated to full status on the main list: Townsend's Solitaire (*Myadestes townsendi*) and Green-tailed Towhee (*Pipilo chlorurus*). This raises the official state list to 386, nineteen of which are considered hypothetical. The Committee is now evaluating records of several species that, if accepted, would increase the state list. The most recently published state list contains 380 species (as of September 1989) and is available from the Connecticut Ornithological Association for $0.25 (see address inside back cover of this issue).

Format. This report continues the format of previous reports (see for example, CW 10:84-91, 1990). In the case of accepted records, only observers who submitted reports are listed (by initials, alphabetically by last name), with the original finder listed first and followed by an asterisk. Observers who submitted a photograph are acknowledged with "†" following their names. Hyphenated numbers following the observers' initials in the parentheses (e.g., 90-6) are CRRC file numbers. Other abbreviations are CW (= *Connecticut Warbler*) and AB (= *American Birds*).

ACCEPTED RECORDS

EARED GREBE (*Podiceps nigricollis*). One was seen at close range from Point Folly on Bantam Lake near the Morris-Litchfield town boundary, 7 October 1988 (Figure 1; LBW*†; 90-6). One was seen by three observers at Cove Island Park just below the Holly Pond Dam, Stamford-Darien town line, during a Christmas Count, 17 December 1989 (TWB*; 90-7).

NORTHERN GANNET (*Morus bassanus*). An adult was seen flying and diving over Long Island Sound off Lighthouse Point, New Haven, 23 March 1990 (SJ & LC*; 90-10).

Before the last few years, this species was exceedingly scarce along Connecticut's coastline, but single birds have been seen with some regularity there recently, especially in fall and early winter.

(Exceptionally, up to several hundred have been seen in one day.) Most of these reports have not been submitted to the Committee. This increase in sightings has prompted the Committee to consider removing this species from its Review List.

Figure 1. Eared Grebe (90-6) at Bantam Lake, 7 October 1988.
Photo by Lyle B. Whittlesey

TUNDRA SWAN (*Cygnus columbianus*). One was seen on Mirror Lake on the University of Connecticut campus in Storrs, Mansfield, 29 November 1989 (JH*; 89-9). This is the only known record for northeastern Connecticut, and one of the few seen away from a major river or body of water. Most records for the Tundra Swan are from the state's southern tier of towns, especially coastal localities (Bair 1990).

HARLEQUIN DUCK (*Histrionicus histrionicus*). A male was seen off Gregory Point in Norwalk harbor, Norwalk, 17-21 December 1989 (DRP*†; 90-18).

BLACK RAIL (*Laterallus jamaicensis*). Two were heard in the higher portions of the salt marsh along the Lewis Gut, Great Meadows, Stratford, 18 May 1990 (MSS*, EH; 90-20).

One bird was first heard while the observers were playing tape

recorded vocalizations of a Least Bittern. The possibility that the rail vocalization might have been due to another birder playing a tape was eliminated by a careful search of the area. During that search a second Black Rail was heard at the same time the first one was calling. Only later did the observers play tape recorded Black Rail vocalizations to the first bird whereupon it moved quickly away through the marsh and then became quiet.

The identification of rarities solely by vocalization remains controversial in the view of some ornithologists, but identifications of common species by sound are now routinely accepted. In the case of nocturnally active species, well documented identifications by sound seem as fully satisfactory as sight records.

RED PHALAROPE (*Phalaropus fulicaria*). One in basic plumage was seen off Linden Road, Indian Neck, Branford, 11 November 1990 (NSP*; 90-22).

SANDWICH TERN (*Sterna sandvichensis*). Numerous observers saw one on a sandbar at Milford Point, Milford, 24 August 1991 (TAM*, PD†; 91-22).

This is the first state record for this species. The occurrence of the Sandwich Tern in the state is not entirely unexpected given the large number of records from surrounding states, especially Massachusetts. Most occurrences in New England are associated with hurricanes, as was this individual. Hurricane *Bob* passed just southeast of Connecticut on 19 August 1991, and Sandwich Terns were a prominent component of the storm's cargo—Long Island had 12, Rhode Island 16, and Massachusetts six. This individual showed a white crown and a narrow shawl of black around the nape, the expected plumage for this species in late August; the black crown of breeding birds typically is replaced gradually by white beginning in late June and early July.

CHUCK-WILL'S-WIDOW (*Caprimulgus carolinensis*). One was seen and photographed at Lake Wintergreen, Hamden, 26 April 1989 (JG*†; 90-15).

This bird was published as having been found 27 April, apparently an error, and heard calling 3 May, for which date the Committee has no details (CW 9:92, 1989). Unfortunately, the photograph alone was submitted, without field notes. As useful as photographs are, observers should take care to record written details as well. The Committee would welcome copies of field notes written by any other observers of this bird.

RUFOUS HUMMINGBIRD (*Selasphorus rufus*). An adult male was present and photographed at a feeding station in New Hartford, 24-27 July 1991 (Figure 2; DPG*†; 91-19). (Published in error as 21-27 July, CW 12:31 and AB 45:1095.)

The first accepted record for Connecticut, this occurrence fits a pattern of late summer and early fall records in New England, where three other records exist between 18 July and 15 September. There is also a mid-April record for Massachusetts and later fall records, especially to the south. The principal timing of occurrences here is perhaps best explained by the migration route of adult male Rufous Hummingbirds, which generally follow an elliptical path, moving southeastward through the Rocky Mountains beginning in mid-summer and northwestward along coastal routes, primarily west of the Sierra Nevada, beginning in very early spring (Phillips 1975). A summary of Rufous Hummingbird records east of the Mississippi River is given by Conway and Drennan (AB 33:130-132, 1979).

Figure 2. Adult male Rufous Hummingbird (91-19) in New Hartford, 26 July 1991. The full gorget and lack of white tips to the tail feathers identify this as an adult male. Other photographs of the bird showed the completely rufous back, which separates this species from the Allen's Hummingbird.

Photo by Dawn P. Gallo

Although the adult male Rufous Hummingbird is a rather distinctive species, care must be taken to eliminate Allen's Hummingbird, especially since an immature male of that species was collected recently on Nantucket Island, Massachusetts (AB 43:429-430, 1989). As to the Connecticut record, the observer noted that the bird showed 'a solid rufous back' when viewed from as close as ten feet. The photographs support this fact and, additionally, show that the rear crown and nape were rufous, the gorget was solid orange-red, and the tail was completely rufous. The latter two characters confirm the age and sex. Adult male Allen's Hummingbirds never show a solid rufous rear crown, nape, and back.

The Committee would also like to caution against confusing the superficially similar sphinx moths of the genus *Hemaris*, three species of which are known from Connecticut (J. O'Donnell, personal communication). In one case, G. Clark was told about a possible hummingbird from northeastern Connecticut, but a photograph submitted later showed one of the sphinx moths.

TROPICAL KINGBIRD (*Tyrannus melancholicus*). One was seen by numerous observers at Lighthouse Point Park, New Haven, 11-14 November 1990 (RLE*, LRB, CSE, JMF [tape recording submitted], KMu, RS†, JW; 90-21).

This is the first state record and only the second confirmed for New England, excluding a record from Massachusetts that may pertain to this species or Couch's Kingbird (*Tyrannus couchii*). The Tropical Kingbird is very similar in appearance to Couch's Kingbird, and without having a bird in the hand, the only known reliable method of separation of the two species is by their vocalizations. Many observers, including one familiar with the vocalizations of both species, carefully described the calls of the New Haven bird as matching those of the Tropical Kingbird. From tape recordings submitted by J. Fengler, Bevier prepared visual graphs plotting frequency and intensity of call against time, showing that the vocalizations of the New Haven bird did indeed correspond to those of the Tropical Kingbird rather than Couch's Kingbird (Smith 1966). This finding confirmed the impression of listeners and the identification of the bird.

TOWNSEND'S SOLITAIRE (*Myadestes townsendi*). One was found in Woodbury near the junction with Watertown and Middlebury, 16-23 December 1989 (MSS*†; 90-12).

This is the first photographic documentation of the occurrence of this species in Connecticut, and thus the status of this species is now changed from hypothetical to full on the state list; there are two other

reports for the state that have not been reviewed by the Committee. Townsend's Solitaires apparently staged a small invasion eastward in the fall of 1989 (AB 44:227). Richard Bowen published the first photograph of this species in New England, in Rhode Island, and summarized previous records in the region (AB 33:142, 1979).

BELL'S VIREO (*Vireo bellii*). A single observer carefully studied and photographed one at Longshore Club Park, Westport, 14 October 1991 (FWM*†; 91-28).

This is the first record for this species in Connecticut, and only the second record for New England. These records and all *verified* records from New York and New Jersey (a total of three) have occurred in fall between 15 September and 19 November.

YELLOW-THROATED WARBLER (*Dendroica dominica*). Two birds were seen by numerous observers along River Road by the Housatonic River in Kent from 7 May into June 1990 (PEL; 90-9). (First found by N. Currie *fide* FWM.)

As noted by P. Lehman, these birds had white lores and were thus apparently of the interior subspecies *albilora*, the 'Sycamore' Yellow-throated Warbler. Furthermore, as he also commented, the habitat was correct for this subspecies as there are numerous stream-side sycamores in that area. Unfortunately, documentation for the breeding of these birds was rather limited. Second-hand reports were received of a bird carrying nest material and later of adults carrying food, but neither a nest nor young were seen. The Committee would appreciate receiving further details from observers who might have obtained evidence on the breeding of these birds.

A single Yellow-throated Warbler was first noted at this locality in May 1989 (CW 9:93). A pair, presumably the same birds as the above, nested in a large white pine at this locality in 1991. J. Young photographed the nest 19 May 1991 (on file with CRRC). The occurrence was published (CW 12:32), but no other details are known.

PROTHONOTARY WARBLER (*Protonotaria citrea*). One was seen by two observers at Barn Island, Stonington, 2 September 1989 (LRB*; 90-5). This is only the third fall occurrence of this species in Connecticut. The description indicates that this was likely a female based on the suffusion of green blending from the back up the nape to the crown.

GREEN-TAILED TOWHEE (*Pipilo chlorurus*). One was seen by five observers and photographed with still and video cameras at a feeder on Pawson Park Road, Indian Neck, Branford, 27 April 1991 (MA†, NSP; 91-13). (Found by J. Kirby *fide* NSP.)

This constitutes the first photographic documentation for this species in the state, and thus the species should be changed from hypothetical to full status on the state check-list. This is the second accepted record for the state, the first also being found at a feeder, 7 February 1983, in Orange (CW 7:50).

Figure 3. Green-tailed Towhee (91-13) at Indian Neck, Branford, 27 April 1991.

Photo by Margaret Ardwin

GOLDEN-CROWNED SPARROW (*Zonotrichia atricapilla*). One was carefully studied by two observers in Naugatuck, during a Christmas Bird Count, 15 December 1991 (MSS*; 91-29).

This is the first record for the state and is accepted to the state list with hypothetical status. A potential first state record is treated with great scrutiny by the Committee, especially when it is only a sight record by a single party of observers, regardless of their number. In this case, the record was accepted by all but one member, the detailed description and experience of the observer overcoming most con-

cerns. The four other records for New England have occurred from 6 January to 15 April. Two sight records from Connecticut, both in April, are listed by Bagg and Eliot (1937), but neither is supported by a written description.

YELLOW-HEADED BLACKBIRD (*Xanthocephalus xanthocephalus*). One was well photographed at a feeder in Clinton, 26 April-1 May 1990 (KMo*†; 90-16). The photographs show what appears to be male in first alternate (breeding) plumage.

RECORDS NOT ACCEPTED, identification questionable

EARED GREBE (*Podiceps nigricollis*). Griswold Point, Old Lyme, 30 March 1979 (88-14). Very brief field notes with little description and a field sketch were submitted for this sighting. Several members were disturbed that the drawing appeared to be more like that of a Horned Grebe than an Eared Grebe; lack of details in the report leaves open the possibility that this bird was actually a Horned Grebe.

WESTERN GREBE (*Aechmophorus occidentalis*). South End Point, East Haven, 15 December 1973 (88-13). This bird was seen well, and most members agreed that this bird was a "Western" grebe of the genus *Aechmophorus*. This sighting occurred before the Clark's Grebe (*A. clarkii*) was separated as a species distinct from the Western Grebe. Unfortunately, the sketch and written notes do not provide enough detail to be certain as to which of these two species was present.

MAGNIFICENT FRIGATEBIRD (*Fregata magnificens*). Falkner Island, Guilford, 18 July 1990 (90-13). This bird was seen by six observers, and the written description clearly indicates that the bird belonged to the genus *Fregata*, but members were unable to determine the species from the details provided. Indeed, the observers themselves stated that they did not see the bird well enough to determine the particular species. Although Magnificent Frigatebird might seem most likely to occur in Connecticut because the species has a normal range closer to Connecticut than that of any other frigatebird, a specimen from Maine is that of a Lesser Frigatebird (*F. ariel*) (see CW 12:40, 1992).

PARASITIC JAEGER (*Stercorarius parasiticus*). Station 43 (Hartford Audubon Society Sanctuary), South Windsor, 9 April 1988 (88-30). The account for this bird seen by a single observer indicates that the bird was partially back lit and seen for less than a minute without the

aid of binoculars or telescope. Although the observer reported seeing central rectrices extending about four inches beyond the end of the tail, the described conditions of observation were unfavorable, and the date is improbably early in the spring for this species.

CALIFORNIA GULL (*Larus californicus*). West Haven, 1 January 1990 (90-11). This was a first winter gull from a group of species that are very difficult to distinguish in the field. The sole observer provided a detailed account of many aspects of the appearance of the bird, but this was insufficient to rule out the possibility that the bird was a Herring Gull or some other species. If a California Gull could be satisfactorily documented, it would be a first state record.

RAZORBILL (*Alca torda*). Between Osprey Beach and New London Ledge Light, New London, 10 January 1991 (91-4). This alcid was seen through binoculars and a telescope by two observers at an estimated distance of at least 600 yards. The description of the bird does not rule out either of the two species of murre. These three species of large alcid are very difficult to recognize to species even at moderate distances (AB 45:252, 1991). Connecticut awaits a convincing written description of this species, which has been reported on several occasions but not yet accepted to the state list.

HARRIS' SPARROW (*Zonotrichia querula*). Avon, unreported date in October 1989 (90-14). The only available evidence on this bird is a photograph showing a bird on a lawn, but the image of the bird in the picture is too small for the species to be identifiable. What can be determined, however, is that the bird was gray and had unmarked upperparts, thus eliminating Harris' Sparrow.

RECORDS NOT ACCEPTED, origin questionable (identification accepted)

EURASIAN JACKDAW (*Corvus monedula*). West Haven landfill, West Haven, 16 February-13 March 1988 (88-21).

Photographs (e.g., AB 43:192, 1988) and descriptions show that this bird was correctly identified as a Eurasian Jackdaw. The controversy lies in whether this bird was a natural vagrant, perhaps ship assisted (AB 41:63, 1987), or might have been a released or escaped captive (CW 12:83, 1992). A Chough (*Pyrrhocorax pyrrhocorax*) found in the state about the same time (CW 9:24, 1989) has been nearly universally considered to be of captive origin, and this raises a question as to whether an aviculturalist might have been keeping European corvids

in the region. One peculiar feature of the West Haven bird as seen in two photographs was a conspicuous deformity on the lower part of the left leg near the distal end of the tarsometatarsus; this abnormality, however, does not provide clear evidence as to whether the bird was of wild or captive origin. Some members pointed out that other records of this species in North America lack any clear pattern of seasonal occurrence and are not preceded by a pattern of intervening records across the North Atlantic, as exists for other Eurasian vagrants. On the other hand, given the North American records, some members believed that those questioning the bird's natural occurrence should bear the burden of proof that this bird did *not* arrive on its own (either naturally or ship assisted). Despite this argument, most members agreed that the individual merits of each occurrence of the Eurasian Jackdaw in North America should be considered separately and that some may pertain to escaped birds. The Committee has been unable to resolve the issue of origin for this bird, and, in such a situation, the conservative interpretation is that the bird might have been an escapee.

It should be noted that the AOU (1985) has accepted this species based on the 1983-1984 records in northeastern North America but regards an earlier record from Fort Myers, Florida, as an escaped cage bird. The Connecticut record is accepted without qualifications by Zeranski and Baptist (1990).

CONTRIBUTORS

Margaret Ardwin, Louis R. Bevier, Thomas W. Burke, Leslie Coates, Paul Desjardins, Carl S. Ekroth, Richard L. English, Jeff M. Fengler, Sam Fried, Dawn P. Gallo, Frank Gallo, Jon Gibbs, Ed Hagen, Jocelyn Hudon, Steve Jones, Paul E. Lehman, Frank W. Mantlik, Todd A. McGrath, Ken Moore (KMo), Kathleen Murphy (KMu), Dan R. Pokras, Noble S. Proctor, Ray Schwartz, David Sibley, Jeffrey A. Spendelow, Fred Sutton, Mark S. Szantyr, Anita TeHennepe, Eugene TeHennepe, Lyle B. Whittlesey, Jay Withgott.

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Fred Sibley, and Joseph D. Zeranski voted on some of the records in this report. Current members of the Committee who reviewed an earlier draft of this report and made many useful corrections are Polly Brody, Milan G. Bull, Thomas W. Burke, Robert C. Dewire, Ed Hagen, Richard L. English, Jay Kaplan, and Frederick Purnell, Jr.

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1. Dept. of Ecology and Evolutionary Biology, University of Connecticut, Box U-43, Storrs, CT 06269-3043

2. P.O. Box 665, Storrs, CT 06268

CONNECTICUT'S FALL 1992 HAWK MIGRATION

Neil Currie

Twenty years of hawk watching in Connecticut has produced a good picture of what to expect from the hawks each fall. Two major flights occur. The inland flight, through the western and northern parts of the state, features Broad-winged Hawks, with smaller numbers of other hawks. This flight gets under way about September eleventh and tapers off to small numbers ten to twelve days later. The coastal flight, along and close to Long Island Sound and featuring Sharp-shinned Hawks, American Kestrels, Ospreys and smaller numbers of the other species, picks up around September fifteenth and continues to just after mid-October. Small numbers of hawks are on the move before and after these dates. Because the general direction of the migration across the state is to the southwest and because Long Island Sound diverts the flight path more directly westward, the Greenwich region becomes the neck of the funnel, a concentration area for large numbers of raptors. Another concentration area is along the east side of New Haven Harbor, particularly at Lighthouse Point.

It is no coincidence, then, that several hundred birders visited Connecticut's hawk watching sites last fall, with Quaker Ridge in Greenwich and Lighthouse Point in New Haven being the most popular. At the National Audubon Society's Quaker Ridge Sanctuary, 13,085 hawks were counted in 525 hours of watching in 1992. Hawk counts have been taken in this location since 1984. At Lighthouse Point, manned since 1978, 488 hours of watching in 1992 yielded 21,281 hawks.

There are five other established sites in Connecticut where for several days in mid-September, birders look for migrating Broadwings. Last fall 57 hours and 7,971 hawks were recorded at Whippoorwill Hill in Newtown; 42 hours and 501 hawks (lowest count in years) in South Windsor; 32 hours and 4,302 hawks at Botsford Hill in Bridgewater; 28 hours and 2,635 hawks at Huntington State Park in Redding; and 35 hours and 2,777 hawks at East Shore Park, two miles north of Lighthouse Point. Fall reports were received from ten other locations, including Chestnut Hill in Litchfield (an informal site for years) 3,652 hawks; and from Taine Mountain in Burlington

(a new site this year) 1,553 hawks (See Table 1).

As expected, the migration got under way in earnest on September 11th when Broadwings began to appear in large numbers at Botsford Hill, Taine Mountain, Whippoorwill Hill and at Quaker Ridge. Prior to this, unsettled weather conditions had predominated for several days. On September third a cool front moved into Connecticut from the west, but stalled, producing light and variable winds, 80° F temperatures and overcast skies - all conditions discouraging to Broadwing flight. On September 10th another cold (cool) front was approaching, passed through on the morning of the 11th, and was over the Atlantic by late afternoon. Around noon the Broadwings began to appear at western Connecticut lookouts.

For many years, in an effort to learn about hawk migration in New England, the New England Hawk Watch has organized weekend watches in mid-September. More often than not, one or both of these days has been washed out, but last fall, to the delight of hawk watchers, Saturday and Sunday, the 11th and 12th, produced ideal conditions and so did the following weekend. On September 11th and 12th over 9,600 Broadwings crossed a north-south line extending from Botsford Hill in the north, through Whippoorwill Hill, to Huntington State Park in the south. At Quaker Ridge to the southwest of this line 4,700 Broadwings passed during the weekend. Following the weekend a high pressure system settled over New England, bringing conditions unsuitable for migration. For birders "turned on" by hawk watching but working for a living, these conditions were perfect. Only occasional hawks were in the sky during the week. On Friday night, September 18th, a sharp cold front passed. Saturday's conditions with brisk northwesterly winds and plenty of thermals, were ideal. During the weekend 800 Broadwings were recorded at Taine Mountain, 3,800 crossed the Botsford-Whippoorwill-Huntington line, and 2,900 passed over Quaker Ridge. By Monday most Broadwings had cleared New England and were well on their way to Texas, Central America, Panama and their final destinations in Peru and Brazil.

With the inland flight about over, attention shifted to the coast. During the evening of September 22nd, another cold front passed, followed by three days of northeasterly winds. At Lighthouse Point during those three days 3,300 hawks were counted. Of this total, 1414 were Sharp-shinned Hawks, 302

were Ospreys, 363 were Cooper's Hawks and 529 were American Kestrels. Following Tropical Storm Danielle's one-day interruption, the high pressure system south of Long Island produced northerly winds from September 29th through October 1st. On those three days 2,646 hawks moved by Lighthouse Point. Following the good Broadwing flights at Quaker Ridge, the rest of September produced 800 hawks of other species.

Throughout October 2,100 hawks continued their migration over Quaker Ridge. On October 4th, 677 hawks, 436 of them Sharpshins, were counted. The migration continued at Lighthouse Point through October, well past the predicted October decline. Flights of over 100 hawks were noted on nine of the remaining October days. Small numbers of Red-shouldered Hawks, Red-tailed Hawks and other raptors continued to pass over both Lighthouse Point and Quaker Ridge in November. During the fall all of the expected hawks, including three Golden Eagles, were seen at Quaker Ridge, and all but the Golden Eagle were recorded at Lighthouse Point (See Tables 2, 3, 4 and 5).

For hawk watchers the fall hawk migration is always an exciting event and 1992 was no exception, with four good flight days falling on weekends during the Broadwing season, and with many big days in both Greenwich and New Haven. At Lighthouse Point the passage of hundreds of other birds is a thrill for birders. Last fall's Blue Jay migration must have been a record one, as thousands passed the Point, hundreds each day. The early morning flight of other passer-ines is always impressive. On many days geese, Canada and Snow, were overhead. On October 26th wave after wave of Snow Geese, 8,000 of them, passed high above the observers; and on another day the air over the marsh to the east was filled with thousands of Tree Swallows. All in all, a great season!

Recorders and observers at Connecticut sites last fall included: Lois Aldi, Dan Barvir, Polly Brody, Tom Burke, Barbara Cole, Neil Currie, Richard English, Larry Fischer, Joyce Grohoski, Elsbeth Johnson, Seth Kellogg, Phyllis Kitchin, Steve Mayo, Jim McBride, Gary Palmer, Arne Rosengren, Ed Shove, Art Titus, Tony Tortora, Edith Wells. There were many more, but these were the leaders.

10 Mountain Laurel, Sandy Hook, CT 06482

TABLE 1: CONNECTICUT - ALL LOOKOUTS - FALL 1992

SITES		SPECIES																
	Hours	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UU	Total
Bridgewater	31.5		20	3	5	70	10			4161				24	4		5	4302
Burlington #1	22.0		25	4	3	39	3		2	1455	1			18		1	2	1553
Greenwich	525.0	396	410	24	80	2495	183	11	117	8187	468	1	3	465	47	17	181	13085
Litchfield	28.0		16	5	1	25	1			3585				5	4		8	3650
New Haven #1	488.0	242	1935	10	487	9683	1863	13	112	1264	498	2		3736	436	46	954	21281
New Haven #2	34.5	77	59	3	9	1539	64		6	664	26			313	2	3	3	2768
Newtown	57.0		72	4	3	198	1			7530	46			45	1			7900
Redding	27.5		25	3	8	92	4	2		2457	8			34	2			2635
South Windsor	42.0		13	1		16	1			422	16			13			19	501
All Others	23.5	31	49	6	3	87	12		3	983	10			58		1	5	1248
TOTAL	1279.0	746	2624	63	599	14244	2142	26	240	30708	1073	3	3	4711	496	68	1177	58923

SITE LOCATIONS

Bridgewater - Botsford Hill
Burlington #1 - Taine Mountain
Greenwich - Quaker Ridge
Litchfield - Chestnut Hill
New Haven #1 - Lighthouse Point
New Haven #2 - East shore Park
Newtown - Whippoorwill Hill
Redding - Huntington State Park
South Windsor - Beelzebub Road

All Others:
Burlington #2 - Johnnycake Mountain
Middlefield - Powder Hill
New Haven #3 - East Rock Park
Salisbury - Riga Lake
Sharon - Sharon
Southbury - Flat Hill
Woodbridge - West Rock State Park

SPECIES ABBREVIATIONS

TV - Turkey Vulture
OS - Osprey
BE - Bald Eagle
NH - Northern Harrier
SS - Sharp-shinned Hawk
CH - Cooper's Hawk
NG - Northern Goshawk
RS - Red-shouldered Hawk
BW - Broad-winged Hawk
RT - Red-tailed Hawk
RL - Rough-legged Hawk
GE - Golden Eagle
AK - American Kestrel
ML - Merlin
PG - Peregrine Falcon
UU - Unidentified Raptor

TABLE 2: QUAKER RIDGE, GREENWICH HAWKWATCH - FALL 1992

MONTH		SPECIES																
	Hours	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UU	Total
August	27.5	4	2			1	1		1	10	4						1	24
September	230.5	25	349	21	43	1269	92	3	11	8148	46		1	248	26	7	95	10384
October	230.5	315	59	2	34	1179	79	7	79	28	229	1	1	217	21	8	63	2322
November	36.5	52		1	3	46	11	1	26	1	189		1			2	22	355
TOTAL	525.0	396	410	24	80	2495	183	11	117	8187	468	1	3	465	47	17	181	13085

TABLE 3: LIGHTHOUSE POINT, NEW HAVEN HAWKWATCH - FALL 1992

MONTH			SPECIES																	
	Days	Hours	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UU	Total	Ave/Hr
August	8	25.0		28	2	8		2			20	1			18	2			81	3.24
September	29	195.0	29	1680	5	203	5280	1022	2	7	1079	8			2840	194	8	380	12737	65.32
October	31	202.0	169	226	2	215	4087	793	8	32	159	193			856	232	37	521	7530	37.28
November	15	65.5	44	1	1	61	316	46	3	73	6	296	2		22	8	1	53	933	14.24
TOTAL	83	487.5	242	1935	10	487	9683	1863	13	112	1264	498	2	0	3736	436	46	954	21281	43.65

TABLE 4: NINE YEARS AT QUAKER RIDGE IN GREENWICH

YEAR	Hours	SPECIES															
		TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UU	Total
1984	100	42	109	6	29	1018	19	1	6	12813	59		1	123	1	3	28	14258
1985	404	193	297	9	235	3099	45	11	32	14398	317	1		474	5	9	238	19363
1986	602	201	618	23	268	3629	75	15	23	39743	544	2	6	673	9	7	337	46173
1987	604	395	1021	24	332	3800	169	10	75	12405	374	1	4	894	30	22	299	19855
1988	524	377	683	22	260	3337	153	14	152	34125	282		5	851	40	16	202	40519
1989	534	244	687	11	256	3511	169	4	98	12522	209		4	986	48	22	279	19050 *
1990	615	414	1038	21	164	3381	269	27	191	9997	481	1	8	980	82	39	304	17397
1991	530	453	461	12	74	2128	146	13	106	7823	349		5	622	39	13	182	12426
1992	525	396	410	24	80	2495	183	11	117	8187	468	1	3	465	47	17	181	13085
Ave/Year	493	302	592	17	189	2933	136	12	89	16890	343	1	4	674	33	16	228	22458

* Includes 1 Swainson's Hawk

SPECIES ABBREVIATIONS

TV - Turkey Vulture	SS - Sharp-shinned Hawk	BW - Broad-winged Hawk	AK - American Kestrel
OS - Osprey	CH - Cooper's Hawk	RT - Red-tailed Hawk	ML - Merlin
BE - Bald Eagle	NG - Northern Goshawk	RL - Rough-legged Hawk	PG - Peregrine Falcon
NH - Northern Harrier	RS - Red-shouldered Hawk	GE - Golden Eagle	UU - Unidentified Raptor

TABLE 5: 15 YEARS AT LIGHTHOUSE POINT IN NEW HAVEN

YEAR		SPECIES																
	Hours	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UU	Total
1978	228		438		136	5171	47		6	236	9		2	1652	19	3	124	7843
1979	248	3	644	2	268	7747	106	7	2	448	27		1	3722	121	20	316	13434
1980	419	17	835		666	9426	91	5	25	2164	122	8		3792	118	18	210	17497
1981	528	23	1070	4	706	13973	381	13	12	5017	103	3		7220	356	24	104	29009
1982	417	16	859	2	352	10136	179	2	12	506	79	1		2323	75	17	92	14651
1983	358		489		340	6417	98			717				1905	94			10060
1984	452	40	800	4	515	9401	159	2	14	977	168	10	1	1667	95	29	120	14002
1985	501	49	1171	3	648	10532	364	10	23	2907	207	9		2459	248	14	361	19005
1986	587	128	1489	13	988	12000	475	26	54	8142	374	13	6	4251	447	25	787	29218
1987	565	261	2059	21	947	8946	446	19	40	2172	248	2	3	3774	235	25	237	19435
1988	488	136	2453	8	677	7320	480	22	37	9330	131	5	1	2938	375	26	1005	24944
1989	534	121	4036	16	788	9656	1000	12	81	598	333	4	2	4572	553	48	949	22769
1990	611	128	3708	17	890	10834	1855	36	289	2352	490	6	2	4619	1382	95	1141	27844
1991	580	228	3034	17	399	8659	1863	30	474	910	658	4	1	4115	783	44	1182	22401
1992	488	242	1935	10	487	9683	1863	13	112	1264	498	2		3736	436	46	954	21281
Ave/Year	467	93	1668	8	587	9327	627	13	79	2516	230	4	1	3516	356	29	505	19560

FIRST DOCUMENTED RECORDS OF BRIDLED TERN IN CONNECTICUT

James M. Zingo

On 27 June 1992 while observing Roseate Terns (*Sterna dougallii*) on Falkner Island (41° 12'N, 72° 39' W), located in Long Island Sound about five km south of mainland Guilford, I saw a noticeably darker-plumaged tern. The bird was approximately the same size as the silver-backed Common (*Sterna hirundo*) and Roseate Terns nesting on the island, but its color pattern was strikingly different. This black-billed tern had a white forehead patch that extended as a narrow stripe above and past the eye. A narrow whitish band separated the black cap from the dark brownish-gray upperparts. The rump and central rectrices were the same dark brownish-gray as the back, while the outer rectrices were white. Underneath, the tern was all white except for the dark tip and trailing edge of each wing.

I recorded the description of the bird when I first saw it between 1010 and 1110, and confirmed those details during later sightings from 1230 to 1245 and from 1750 to 1800. Although the bird did not land, it flew as close as five meters, providing an excellent view and allowing me to take corroborating photographs (see Figure 1). I watched for several hours on the following two days, but I did not see the bird again.

I saw presumably, the same Bridled Tern again on Falkner Island on 13, 14 and 16 August 1992. On 14 August, it was standing on the rocky beach, and I observed the pale gray "bridle" between the cap and back, as well as the black legs and all the features noted in the above description. Ann M. Kilpatrick and Katrina L. Stewart also observed the bird as it flew within four meters, and I again obtained photographs (see Figure 2). Susan M. Bodin, Diana R. Spendelow, Jeffrey A. Spendelow and I watched it fly within three meters on 16 August.

I identified the bird as an adult Bridled Tern (*Sterna anaethetus*) from the information in Harrison (1983). A few other species of terns have similar markings. However, the Sooty Tern (*Sterna fuscata*) has much darker, essentially black, upperparts than does the Bridled Tern. Furthermore, the Sooty Tern lacks the distinctive "bridle" between cap and back, and its broad white forehead patch does not extend past the eye. In Gray-backed Terns (*Sterna lunata*) the "bridle" is grayer than in Bridled Terns, the back is lighter in color, and a smaller part of the outer tail feathers is white. The Aleutian Tern (*Sterna aleutica*)

has a broader white forehead patch, gray underparts and a completely white rump and tail. The normal ranges of the Gray-backed and Aleutian Terns are in the Pacific, and hence those species would seem much less likely to appear in Connecticut than the Sooty or Bridled Terns that regularly occur in the Atlantic.

The Bridled Tern nests in the Caribbean region, in some places in mixed colonies with Sooty and Roseate Terns. It has been reported as a stray in the region of the northeastern U.S. and southeastern Canada on more than 15 occasions (Trouern-Trend and Bevier 1992) but has not previously been documented for Connecticut. These 1992 spring and summer records seem unusual because they are apparently not storm-associated, and many previous records for the region have occurred in the fall following tropical storms (Trouern-Trend and Bevier 1992). Once within Long Island Sound, this bird was perhaps attracted by the several thousand terns breeding on Falkner Island. An alternate hypothesis, given the sighting dates and the species' association with Roseate Terns, is that the Bridled Tern joined a group of Roseates migrating northward and arrived at and stayed within the North Atlantic breeding region. If the different sightings were of the same individual, this bird might have been present at Falkner Island through the summer. A tern with different coloration and a different voice might not be easily seen or distinguished within the swirling, screaming mass of terns nesting on the island. Interestingly, although there is no evidence to support speculation on possible hybridization, the bird's behavior on 16 August was similar to that of a Roseate Tern which has a chick hiding among the rocks while an intruder is nearby.

Acknowledgments

Thanks to Peter Capainolo, George Clark and Jeff Spendelow for their helpful comments on the manuscript.

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c/o Queens College Center for Environmental Teaching and Research, 31 Lloyd Harbor Rd., Huntington, NY 11743 and Little Harbor Laboratory, Inc., 69 Andrews Rd., Guilford, CT 06437.

Figure 1. Bridled Tern at Falkner Island 27 June 1992
Photo by James M. Zingo

Figure 2. Bridled Tern at Falkner Island 14 August 1992
Photo by James M. Zingo

COMMON QUESTIONS ON BIRDS

George A. Clark, Jr.

Nature centers, museums and individuals who study birds in Connecticut receive numerous inquiries from the public. At the University of Connecticut in Storrs, we receive many such questions. It may be helpful for others who are asked about birds, to review some of the commonly asked questions and something of the answers given. Although some of this information is widely known, the material is seldom found in general ornithology texts or other bird books. At Storrs most inquiries are received by telephone, although occasionally people write or visit in person. As might be expected, most questions originate from northeastern Connecticut, but some come from other parts of the state or, more rarely, even out-of-state. Questions may differ between regions of the state. For example, problems with Canada Geese are more numerous along coastal Connecticut than in the northeast interior.

Because of the number of inquiries, it is generally not practical to investigate matters first-hand, but an effort is made to provide general guidelines and advice. Occasionally a question brings to attention some matter not previously considered and of such general importance that consultation with specialists on the topic is desirable.

In many situations there are legal limitations on conceivable courses of action. Birds are extensively protected by both federal and state regulations, and capture, handling, transportation, or killing of native species can be legally done only with appropriate permits.

Unfortunately, no record has been kept over the years on the numbers of each kind of question, but the following categories are recurrent topics:

PROBLEM BIRDS

A. Window tapping: In this behavior, most often reported in spring and summer, birds, particularly American Robins or Northern Cardinals, repeatedly tap or pound on windows or other reflective surfaces. In some cases a bird repeatedly flies against a window. Birds have been reported to go around an entire house and tap at each window near the ground level. The behavior can be particularly bothersome in the early morning, and a few callers have complained about serious disturbance of their sleep. Other callers have been concerned that a bird might be injured by repeatedly flying into windows. Such behavior can reportedly persist for weeks. At least

in cardinals, females are often reported to be involved.

A somewhat speculative, but plausible, interpretation of such behavior is that the bird sees its own reflection and, during the season of territorial defense, reacts to the reflected image as though it were another bird. Flying against the image or pecking at it is then considered to be an attempt to drive the "foreign bird" out of the territory.

A solution for this problem is elimination of the reflection by covering the outside reflective surface with a glass cleaning cream or translucent panel. Most people will probably not want to put an opaque cover over the outside of a window although that also would be effective.

B. Window strikes: In this case birds attempt to fly through a pane of glass and are often killed or injured. Larger birds, such as Ruffed Grouse, often break panes including large picture windows, and repairs can be expensive. For smaller birds, window smudges and the unwanted carcass can be disturbing.

Flying birds involved in strikes apparently do not detect the presence of the glass. Strikes appear to be likely, 1) where large windows are positioned on either side of a building so that birds can see light passing through, or 2) where birds looking up can see reflections of large areas of sky. As was pointed out by the late Dr. Lawrence Penner of the University of Connecticut, many grouse strikes apparently involve birds on the ground interpreting a reflected image of sky as a clear pathway for flight. The most commonly proposed solution for window strikes is to attach decals to the windows so as to break up the large areas of glass and thus create the appearance of a less clear path from the presumed perspective of a flying bird. Dr. Penner reported that the attachment of decals to picture windows decreased the likelihood of grouse strikes. There seems to be no evidence that decals shaped like falcons are more effective than other kinds of decals in reducing the incidence of window strikes. In cases where light passes directly through a building with large windows on either side, the drawing of drapes or other blockage of the light may help to reduce the incidence of bird strikes. Klem (1989) has discussed other aspects of the window strike problem.

C. Hole drilling: Hairy Woodpeckers (and other woodpeckers to a lesser extent) seem to be particularly likely to drill holes in wooden buildings, and in the past, home owners frequently asked about this problem. With Hairy Woodpeckers now being relatively scarce in northeastern Connecticut, no reports of such damage have been received lately. However, if the species should again become numer-

ous, there is a potential for resurgence of the problem.

Why the birds excavate on wooden buildings is unknown, but infestation of the wood by insects does not appear to be necessary. Hole drilling sometimes occurs on stained rather than painted buildings. One hypothesis is that stain does not coat the wood as thoroughly as paint, allowing flies, beetles and other insects to lay their eggs in cracks in the wood; the woodpeckers, discover the eggs, drill them out and begin to look for additional food sources in the vicinity. One solution for this problem as well as many others involving pest birds is the creation of a barrier that keeps the birds away from the area of potential damage. Details of arrangement of screening, netting, or other cover are likely to be rather specific for the particular site.

D. Damage to crops, flowers, and fruits: Most questions in this category have come from home owners or gardeners rather than commercial producers. Numerous species of plants and of birds can be involved. If the area of potential damage is relatively limited in extent, the recommendation is to use a barrier to exclude birds. For example, the home gardener can use netting to protect fruits on small trees or blueberry bushes. Traditional scarecrows or stationary model owls are seldom effective as birds usually learn quickly that such objects are non-threatening. In general, growers of small quantities are probably best advised at present to avoid "hi tech" methods, such as use of taste and sound repellants that can be disproportionately expensive. Machines emitting ultrasound as a repellant have been advertised in the past, but these are likely to be entirely ineffective because most bird species cannot generally hear noises at such high frequencies.

E. Droppings and other debris around buildings: Rock Doves, European Starlings and House Sparrows are most commonly involved and complaints include unsightliness, possible health hazards, and risks to expensive machinery. A permanent, passive, barrier (often unworkable on large buildings, parking lots, etc.) generally provides the best long term solution and usually must be tailored to the specific site. As with crop damage, removal of pest birds from an area, as might be legal with appropriate permits for trapping or shooting, is unlikely to provide a long term solution because the individuals eliminated are likely to be replaced by new arrivals. Whatever features of a site are attractive to one group of birds may also attract others. Modification of the site, as with a passive barrier system, generally provides longer term relief with less effort.

HELPING BIRDS

A. Injured or sick birds: In general, the best response to questions is to provide information on the nearest appropriate rehabilitation center rather than to encourage the finder to attempt to maintain the bird. Care of birds by untrained and inexperienced individuals can be more harmful than helpful. It is also illegal to keep wild birds without the appropriate federal permits. In some cases there may also be risks to human health, although most bird diseases are not infectious to humans.

B. Baby birds: People often find baby birds outside the nest in late spring and summer. In general, such birds should be left where found as the caring adults are often nearby. There is no evidence that birds will reject young handled by people. Handling young birds, however, is not recommended as they are easily injured and because human scents remaining on the birds may attract predatory mammals, particularly dogs or cats. If cats are a problem, the best solution may be to confine them while young birds are present. As a last resort, should there be no way to return the babies to the caring adults, arrangements may be made for the birds to go to a rehabilitation center as in the case of injured or sick birds.

C. Eggs: Eggs are often abandoned in late spring or summer and will not hatch. In general, we recommend leaving them where found. Possession of most eggs without permits is illegal and rehabilitation centers are generally not prepared to incubate eggs and rear wild birds from hatching.

D. Birds accidentally trapped in enclosures: In a common case a bird flies into a building through an open window or door. Numerous species may be involved, including, in recent cases, Ruby-throated

Hummingbirds, Black-capped Chickadees, Song Sparrows, House Finches and House Sparrows. Birds, once inside, tend to move upward toward brightly lit areas. In the wild, flying toward light may provide a good escape, but in many rooms bright lights are around the ceiling and the upper windows are sealed or difficult to open. Such birds could remain trapped for a long time. If a bird is left alone, and a window or door is left open, however, the bird will usually find the opening and leave.

As seen by bird banders using simple maze traps made of wire mesh, birds that are captured by baiting with food or even dripping water, when disturbed, fly upward in the trap rather than attempt to escape via a ground level entrance. The tendency to fly upward to escape is evidently very strong. In contrast, gray squirrels that enter such traps have little difficulty in relocating the ground level opening.

CAUSES OF DEATH

Those who find dead birds may wish to learn the cause. In many cases the cause can be reasonably inferred from the circumstances, e. g., location on a road suggests a vehicular strike, or a partially eaten fresh carcass might indicate predation. If disease or poisoning is suspected, consideration can be given to consulting a pathology laboratory. Refrigeration rather than freezing may provide the best material for autopsy, and rapid delivery to the laboratory is then desirable.

IDENTIFICATION

Most people who watch birds enjoy the challenges of identification, but trying to identify birds from telephoned descriptions can be frustrating! Such questions may sometimes lead to seeing unusual birds. Having a set of field guides near the telephone is helpful, because if a caller has been consulting a guide, discussion of features shown in the plates of a particular guide may speed the identification process.

BIRDS OF PARTICULAR AREAS

In recent years more inquiries have come from people who want to know what kinds of birds live on certain tracts of land that might be subject to future development. Many areas of the state do not have surveys of birds, so answering these questions may require on-site visits. Birders are often willing to help conduct informal surveys.

ORGANIZATIONS

Questions frequently concern programs of bird clubs or other natural history organizations and it is helpful to have information about these groups close at hand.

STATUS OF SPECIES

Questions sometimes concern the status of particular species in the state, e.g., Eastern Bluebirds. If the questions are specific, questioners may be referred to individuals who are knowledgeable about such species.

BANDED BIRDS

Wild birds cannot be legally banded without a permit and leg bands issued by the U.S. Fish and Wildlife Service. These bands all have the address of the Banding Laboratory either on the outside or inside of the band. Individuals finding a banded bird are asked to report the find by mail and will receive, in return, information on the bird. Reporting of bands makes an important contribution to our knowledge of wild bird populations.

For pigeons, however, the situation is quite different. There are apparently no regulations governing the use of leg bands on pigeons, and people often find these birds wearing numbered bands with no addresses. Most banded pigeons appear to be racing birds that have become lost, injured or unable to complete the race. They may then join flocks of feral pigeons. In our experience, the former owners of such "drop outs" have little interest in knowing the whereabouts of such birds, so we do not recommend pursuing the matter.

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Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT 06269-3043.

ORNITHOLOGICAL LONGEVITY

Gordon Loery

For many years Bob Steele of Hartford's WTIC-AM Radio announced the birthdays of listeners 80 years old or over on his popular morning program. At White Memorial Foundation in Litchfield, we have organized our own ornithological longevity club using data collected at our banding station since 1958, supplemented by additional records published in the *Journal of Field Ornithology* (formerly *Bird-Banding*). Two of the published, records (for the American Tree Sparrow (*Spizella arborea*) and the Pine Grosbeak (*Pinicola enucleator*), were based on our banding data. The minimum age for inclusion in our club is five years rather than 80. Not knowing exact hatching dates we have assumed June to be the universal hatching month for most bird species. In some cases we have added an extra year to the time elapsed between banding and recovery based on the knowledge that certain birds in adult plumage (e.g. male Purple Finches) must be more than one year old. The results are shown in Table 1. When large numbers of relatively short-lived species are banded, particularly if they are permanent residents, or return to a given locality with great regularity, we can assume that the longevity records shown are close to the limits attainable in the wild. One must, however, keep in mind that these are exceptional not average ages. For example, the maximum age for Black-capped Chickadees (*Parus atricapillus*) listed below is over 12 years, but the average life expectancy for a member of that species has been estimated to be about 2.5 years The latter age is more significant for many biological studies, but some interesting conclusions may also be derived from the former. For example, the longevity records provide evidence in support of the generalization that the larger the bird the longer the life. As can be seen in the chart the maximum age for the Hairy Woodpecker (*Picoides villosus*) (15 years, 10 months) is greater than for Downy Woodpecker (*Picoides pubescens*) (11 years, 5 months); for Tufted Titmouse (*Parus bicolor*) (13 years, 3 months) greater than for Black-capped Chickadee (12 years, 5 months), greater than for Red-breasted Nuthatch (*Sitta canadensis*) (7 years, 6 months).

Finally, one other interesting observation should be mentioned. In looking over our data we have noted that the oldest individuals we have encountered have usually been males. This does not necessarily

imply that male birds outlive females. It may just be that the territorial males are more likely to return to the banding station and be recaptured.

Alain White Rd., Morris, CT 06763

SPECIES	OUR RECORD	PUBLISHED RECORD
Blue Jay	14 year, 6 month	16 year, 4 month
Black-capped Chickadee	11 year, 10 month	12 year, 5 month
American Tree Sparrow.	10 year, 9 month	12 year, 5 month
Dark-eyed Junco	10 year, 6 month	10 year, 9 month
Rufous-sided Towhee	9 year, 11 month	12 year, 3 month
Brown-headed Cowbird	9 year, 10 month	16 year, 11 month
Downy Woodpecker.	9 year, 10 month	11 year, 5 month
Pine Grosbeak	9 year, 9 month	11 year, 5 month
Hairy Woodpecker	9 year, 8 month	15 year, 10 month
Cardinal	9 year, 1 month	15 year, 9 month
Purple Finch	9 year, 1 month	11 year, 9 month
Common Grackle	8 year, 0 month	20 year, 11 month
Redwing Blackbird	7 year, 10 month	15 year, 9 month
American Goldfinch	7 year, 9 month	9 year, 3 month
House Finch	7 year, 1 month	11 year, 7 month
Gray Catbird	6 year, 11 month	10 year, 11 month
White-breasted Nuthatch	6 year, 11 month	9 year, 10 month
Tufted Titmouse	6 year, 7 month	13 year, 3 month
Mourning Dove	6 year, 6 month	9 year, 8 month
Evening Grosbeak	6 year, 6 month	15 year, 3 month
Song Sparrow	6 year, 3 month	11 year, 4 month
Red-breasted Nuthatch	5 year, 2 month	7 year, 6 month
White-throated Sparrow	5 year, 10 month	9 year, 8 month
Eastern Phoebe	5 year, 0 month	9 year, l month

Table I - Comparison of White Memorial Foundation Longevity Records with Published Records

CONNECTICUT FIELD NOTES
SUMMER: June 1 - July 31, 1992

Jay Kaplan

Editor's Comment: The Connecticut Field Notes require that documentation be submitted to the Editor or the Secretary of the Connecticut Rare Records Committee for all rare species designated by that committee (see COA Field List).

What a strange summer! There wasn't a plethora of unusual sightings, with three Brown Pelicans off Stonington in late July one of the few real "rarities." (Of course, with an astounding 80 pelicans off the south shore of Long Island during this period, it is not all that surprising that a few should venture north into Connecticut). It was, considering the weather, the lack of vagrants that made the period interesting from an ornithological standpoint. In the past few summers, we have tried to relate the appearance of unusual avian species to the unusual weather systems that may have precipitated their arrival. There is still a great deal of research to be done when it comes to the relationship between weather systems and bird movements. Nevertheless, if rare birds are indeed brought to us by severe weather systems, the summer of 1992 did not live up to expectations.

The summer was, to quote The Hartford Courant, "cool, often wet and truly tempestuous." Connecticut's summer was one of the coolest ever, with an average temperature of 68.2°F, three degrees below normal. In 1991, there were 31 days in which the mercury reached 90°F or higher. In 1992, this mark was reached only seven times, and temperatures never exceeded 90°F.

Rainfall, although substantially higher than usual, was not overly excessive with 5.77 inches in June, compared to a normal 3.38 inches. In July, precipitation totaled 4.62 inches compared with a norm of 3.09 inches. The amount of rain that fell, however, varied tremendously from one part of the state to another. The figures quoted above came from the The National Weather Service in Windsor Locks. Yet, along the coast, several towns recorded a July rainfall in excess of 8 inches. In Danbury, 5.86 inches fell on July 15 alone. There were also violent storms, with tornadoes reported in New Fairfield July 5, and in Stafford and Plainfield July 14. There were also numerous heavy thunderstorms, with heavy tree damage in Enfield July 14 and again July 29. The latter storm was accompanied by high winds and hail, but nary a vagrant from afar.

LOONS THROUGH QUAIL

Lingering Common Loons were along the coast in Westport June 8 and 28 (FM), and at Milford Point June 23 and July 10-23 (m.ob.) A Horned Grebe and a possible nesting Pied-billed Grebe were unusual at Laurel Reservoir, New Canaan June 14 (FM). Three **Brown Pelicans** were reported off Stonington Point, Stonington July 20 (RD et al.), with one bird present until July 22 (DP). Photographs have been forwarded to the Connecticut Rare Records Committee (CRRC). This is the first documented sighting of this species in Connecticut since 1977 (Zeranski & Baptist). A very late Great Cormorant, traveling with Double-crested Cormorants, was off Eastern Point, Groton June 12 (LW). Double-crested Cormorants continue to make nesting news, with a single new nest discovered atop a piling in Stamford Harbor (TB fide FM). Also, a flock of 12 flew over Roxbury June 7 (FM et al.). There were few Least Bittern reports with two in Cromwell Meadows June 26 (JMo), and individuals in Durham Meadows June 13 (BD), at Station 43 marsh, South Windsor July 16 (DP), and at Great Meadows, Stratford July 27 (Ron Rozsa fide MB). It may be premature to voice concern over this secretive and often difficult to detect species. A Tricolored Heron was at Barn Island Wildlife Management Area (hereafter BIWMA), Stonington June 12 (DP). There were no reports of breeding Cattle Egrets this summer, however, 15 were in Westport July 2 (CB). Three late

Photo by Frank Mantlik, Stonington, CT July 20, 1992

Brant were at Milford Point, Milford June 16 (NHBC), and another was in Westport July 21-23 (FM). Other late lingering waterfowl included a male Green-winged Teal at South Cove, Old Saybrook June 22 (FM,CW), a male Ring-necked Duck at Laurel Reservoir, New Canaan June 28 (JZe), and a female Black Scoter in Norwalk Harbor June 7 (FM,CW).

The Connecticut Department of Environmental Protection's Wildlife Division (DEP) totaled 66 active Osprey nests this summer, equal to the previous year's nest total. In 1992, however, statewide nest productivity decreased 20%, from 1.83 young per active nest fledged in 1991 to 1.47 in 1992. This is the lowest productivity level since 1984 (DEP SCOPE). On a positive note, however, the Osprey nest at Nell's Island, Milford, produced two young (m.ob.) following last year's unsuccessful attempt. One of the year's, if not the decade's, high points was the successful fledging of two Bald Eagle chicks from a Barkhamsted nest, the first successful nesting in Connecticut since the 1950's (DHo et al.). Immature Bald Eagles were at Lake Zoar, Southbury June 7 (RN), Sherwood Island State Park, Westport (hereafter SISP) June 9 (Phil Reinertsen fide FM), and South Windsor July 28 (PD). Northern Harriers were reported at BIWMA June 11 and later in the summer (RSCB). This is an area with substantial breeding habitat for this species and future monitoring might be warranted. Also, a male harrier was in Stratford June 20 (fide MB). A Cooper's Hawk was in Roxbury June 7 (WCBC), and several birds in Simsbury June 27 (BK) likely bred in nearby Great Pond State Forest. Three hawks were seen harassing small birds in this vicinity throughout the period.

Wild Turkeys were new to the annual Greenwich-Stamford Summer Bird Count June 14, with sightings in four areas, including a female with five young in Greenwich (TB). A Northern Bobwhite was at the Fenwick Golf Course, Old Saybrook June 22 (FM,CW).

SHOREBIRDS THROUGH OWLS

A statewide total of 40 pairs of Piping Plovers fledged 58 chicks, a slight increase over 1991, but not approaching the high of 70 chicks fledged in 1990. Peak numbers came from Long Beach, Stratford (18), Sandy/Morse Point, West Haven (15) and Griswold Point, Old Lyme (17) (DEP). It is imperative that these areas be protected in order to preserve this species. American Oystercatcher reports this summer included one at Milford Point June 7 (NHBC), six pair at Sandy Point, Stonington June 12 (RSCB), two at Hammonasset Beach State Park, Madison (hereafter HBSP) June 23 (NHBC), two July 8 and four July 29 at BIWMA (DP). In

addition to the usual Willet pair at HBSP (m.ob.), 14 were at Great Meadows Marsh, Stratford July 4 (CB) and four were at North Cove, Old Saybrook July 18 (JMo). Upland Sandpipers again nested at Windsor Locks' Bradley International Airport (m.ob.) and one was at SISP July 19 (RS), while eight were at Sikorsky Airport, Stratford July 26 (DP). A Whimbrel was at Milford Point July 12 (fide MB) and two were at Manresa Island, Norwalk July 26 (CW). Sparse in recent years, Red Knots were reported only from Milford Point, with 10 there June 10 (CB) and two July 21 (fide MB). Short-billed Dowitchers peaked at 150+ at Milford Point July 25 (JMo). Additional shorebirds of note included single White-rumped Sandpipers at HBSP June 27 (NHBC) and Milford Point July 5-7 (CB,PD), a Baird's Sandpiper at Milford Point July 18 (SM), a Western Sandpiper at Milford Point July 11 (DP), and a female Wilson's Phalarope at HBSP June 25 (NC). An unconfirmed report of a **Rufous-necked Stint** on a sandbar at Milford Point July 15 (DS) has been forwarded to the Connecticut Rare Records Committee.

The first documented record for **Bridled Tern** came from Falkner Island, Guilford, where a bird was "flying around" the tern colony for two hours June 27 (JZi). The bird was photographed and subsequently seen on several other occasions. Single Caspian Terns were in Norwalk July 1 (CW) and at Sandy Point, West Haven July 12 (fide MB). A total of 655 pairs of Least Terns fledged 101 chicks, the majority from Sandy/Morse Point, West Haven (DEP). This total is down from 120 chicks fledged the previous summer. An adult Black Skimmer was at Sandy Point, West Haven July 18 (JB), and two were at Milford Point July 21 (JF).

Barn Owl pairs in Middletown and Middlefield fledged three and five young, respectively (GZ). A Northern Saw-whet Owl was heard calling sporadically in Mohawk State Forest, Cornwall in June (m.ob.).

FLYCATCHERS THROUGH GRACKLES

The Western Connecticut Bird Club's Summer Count, June 7, totaled 11 Acadian Flycatchers in the Roxbury area (WCBC). Additional noteworthy sightings for this species included three birds calling in Ashford July 16 (GC,WB,DHi) and three in West Hartford June 14 (PD,DR). A Red-breasted Nuthatch was in Norwalk on the odd date of July 19 (FM,CW). A Brewster's Warbler was in Woodbury June 7 (MS), while a Lawrence's Warbler was in Watertown June 24 (RN). A Magnolia Warbler was in Greenwich June 14 (fide TB). Yellow-throated Warbler was again reported from Kent's River Road (m.ob.), and another was in Avon June 11-18 and 25 (KM,DR).

A late Bay-breasted Warbler was at Milford Point June 7 (PD). The WCBC totaled three Mourning Warblers on the June 7 summer count. Hooded Warbler is generally perceived as a "coastal" species, although there are inland breeding records for Connecticut. Summer sightings included two in Woodbury June 7 (MS), two in West Hartford June 13 (JS fide BK) and a male in Hampton in July (MH).

Some observers felt that the Grasshopper Sparrow colony at Bradley International Airport, Windsor Locks, the only known breeding location in the state, had declined in numbers with four birds seen June 5 (JMa). Unusual was a singing White-throated Sparrow found July 15 in Pachaug Forest in southeastern Connecticut (RSCB) through the end of the period. An adult male **Boat-tailed Grackle** was in Great Meadows, Stratford July 4 (CB). This is the first report for this species in several years, although they have previously shown up at this location. There was an additional unconfirmed report of this species in North Haven in early July (NHBC).

Observers; Contributors (Boldface):

James Bair, Charles Barnard, Milan Bull, Tom Burke, Winnie Burkett, **George Clark,** Neil Currie, Connecticut Department of Environmental Protection (DEP), **Paul Desjardins, Buzz Devine,** Robert Dewire, Jeff Fengler, **Diana Gray,** Marilyn Higgins, Dolores Hilding (DHi), Don Hopkins (DHo), **Betty Kleiner,** Frank Mantlik, **John Maynard** (JMa), Steve Mayo, **Joe Morin** (JMo), Kathie Murphy, **Russ Naylor,** New Haven Bird Club (NHBC), **David Provencher,** Records of Southeast Connecticut Birds (RSCB), David Rosgen, John Smalley, **Richard Soffer, Dori Sosensky,** Mark Szantyr, **John Wagenblatt,** Lisa Wahle, Western Connecticut Bird Club (WCBC), Connie Wood, **George Zepko,** Joe Zeranski (JZe), Jim Zingo (JZi).

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70 Gracey Rd., Canton, CT 06019

PHOTO CHALLENGE
Answer to Photo 3

Even those ordinarily unobservant of bird life, notice gulls floating behind a ferry crossing Long Island Sound, scattered along beaches, or clamoring for scraps of food at the local dump. When it comes to identifying gulls, however, the crowd quickly thins, and even the "little brown job" seems preferable to many birders. The bewildering array of plumages and the lack of adequate coverage in field guides are reason enough for one to throw in the towel and join the rest of the populace in giving the definitive answer—yep, that's a sea gull. Look at it this way, gulls are large, allow close approach, and do not hide in dense foliage; one will not get "warbler neck" studying these birds. With such promising features, it is time to begin studying these wonderful identification challenges.

We are all familiar with the basic groups of gulls: small, medium and large. Beyond this, one must develop an understanding of the sequence of plumages any individual gull undergoes during its life. Most adult gulls are gray and white birds; most immatures have some brown mottling in their feathers. There are exceptions and variations, of course, but this can help us a great deal. Although many of our adult gulls show brown or gray mottling in the head in winter, none of those species shows mottling on the underparts or wings as our photo challenge does. So, this is an immature gull. The size of the bill with respect to the head and the slender body with long wings place this bird in the small to medium size range.

As mentioned above, the vast number of plumages found in gulls is a problem. For the 14 species recorded in Connecticut alone, there are at least 98 different plumages, many of which we can now eliminate from consideration, but still a large number exists. What can we see about its plumage? The head is streaked and mottled, as is the lower breast, where the markings are indistinct wavy bars. The tertials, those large rounded feathers above the wings, are mostly dark, and lie above distinctly marked wing coverts, except the last row of feathers above the black secondaries and primaries. These are the greater coverts, and they appear very pale. (We cannot see the separation between the primaries and secondaries in the photo.) The back is gray, and the primaries are black and extend well beyond the tip of the tail. One of the more distinctive features appears to be the bill, which is pale with a sharply demarcated black tip.

What does this tell us? The head pattern alone removes from consideration most of the "hooded" gulls (e.g. Bonaparte's, Little and

Common Black-headed). In winter plumage, all ages of those species show a white head with a dark ear spot. The strongly bicolored bill eliminates any Laughing Gull, which would also show much more gray on the breast and have black legs. Of the species that might cause our heart to race, Franklin's, Ross' and Sabine's gulls can be removed from consideration by the bill pattern and shape, which is rather "parallel" sided in profile on this bird.

Let's look at those pale greater coverts again. In the larger gulls, these feathers are barred with dark brown in immature birds, creating a rather uniformly marked wing. Herring, California, Great Black-backed and Lesser Black-backed gulls all show this pattern in their first and second winter plumages. Their second winter plumages, at an age of a year and a half, are the stage when they show gray backs like our bird. Broadly speaking, the number of identifiable winter plumages is related to the size group of the gull—small gulls become adult after one distinctive winter plumage, medium gulls after two, and large gulls after three. The winter plumage before maturity (in terms of plumage and not necessarily sexual activity) is usually most similar to the adult plumage, there being minor differences in the primaries and bill. Therefore, if our bird is a medium sized bird, it is in its first winter plumage; the second winter plumage would be almost like an adult.

Given our restriction of species that have occurred in northeastern North America, we are left with only two choices, Ring-billed and Mew Gull. The Ring-billed is an abundant gull in North America, making up those flocks of gulls following not the ferry but the tractor and plow. The Mew Gull is a species found regularly on the Pacific coast and only casually in the northeast, where it is most likely to be of the European race called Common Gull (*Larus canus canus*). Both of these species show the pale greater coverts and long wings, extending well beyond the tail. The field marks separating Mew Gull on the Pacific coast and in New England are different because of the different races involved. The Common Gull of Europe is the larger race and the most similar to the Ring-billed Gull. In all first winter plumage Ring-billed Gulls, however, there are several features that separate it from Mew Gull. First, the bill is "parallel" and blunt; Mew Gull shows a tapered bill. Only aberrant and extremely young Ring-billed Gulls show a tapered, small bill. The tertials are mostly dark with narrow pale edges in Ring-billed Gull; Mew Gull has broad pale margins to these feathers. Those wavy bars on the lower breast are quite different from the rather unmarked or smudged appearance of all first winter Mew Gulls. And, look at the marked wing coverts. They show sharply pointed tips to the brown centers, creating a "sawtooth" effect; Mew Gull shows rounded and brown centers.

After all the anxiety, this is just a common bird, but one worth studying and learning. This "mall buzzard," as Walter Ellison calls the Ring-billed Gull (*Larus delawarensis*), was photographed in Santa Barbara, California, in early spring.

Louis Bevier

Photo Challenge 4. Identify the species above, which occurred in the northeastern North America. Answer next issue.

NOTICE

We need articles for the "Warbler." Any and all type of articles will be considered, including site guides, behavioral observations, interesting sightings, rarities, species studies, or other informative articles that would be of interest to our readers.

Articles for consideration should be sent to the editor. (See inside back cover for name and address.)

THE CONNECTICUT WARBLER

Editor

Betty S. Kleiner
5 Flintlock Ridge, Simsbury 06070

Associate Editors

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Preparation of Manuscripts:

The editors welcome submission of articles and notes for the *Connecticut Warbler*. Manuscripts should be typed double spaced on one side of the sheet only, with ample margins on all sides accompanied with an IBM PC disk, if possible. Style of the manuscript should follow general usage in recent issues. All manuscripts receive peer review.

Illustrations:

The editors welcome submission of line artwork of Connecticut and regional birds. Good quality photographs of particular interest will also be considered. Line art should be submitted as good-quality photographic prints or in original form. All originals and prints will be returned promptly after publication prints are made.

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THE CONNECTICUT WARBLER

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THE CONNECTICUT ORNITHOLOGICAL ASSOCIATION

ABOUT OUR COVER ARTIST:

Brian Kleinman

"Black-and-white Warbler (*Mniotilta varia*)"

Brian Kleinman, a 17 year-old high school junior, has again provided us with a front cover drawing. His interest and talent as an artist serves him well in his study of birds and nature. Brian has been a long-time volunteer at Roaring Brook Nature Center and is now a part-time staff member. He is a resident of Barkhamsted and attends Northwest Regional High School.

The Connecticut Warbler
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MABEL OSGOOD WRIGHT AWARD

Editor's Note: The following is the presentation by Betty Kleiner, of the Mabel Osgood Wright Award, at the annual meeting of the Connecticut Ornithological Association on March 27, 1993.

Dr. George Clark is on the faculty at the University of Connecticut, where he has taught since 1965,and is a Professor in the Department of Ecology and Evolutionary Biology. Of his many contributions to ornithology, perhaps the most important is his role as teacher and advisor to students who, through his influence, have continued to study birds and promote bird conservation. The following are just a few of his former students, both graduate and undergraduate: Tom Baptist, Miley Bull, Bob Craig, Walter Ellison, Frank Mantlik, Noble Proctor, Dave Rosgen, and Joe Zeranski.

Dr. Clark helped to organize the Connecticut Ornithological Association, becoming a founding member and serving as nominating chairman for C.O.A.'s initial Board of Directors. Dr. Clark served on the C.O.A. Board for two three-year terms. He is also a Past-President of the Northeastern Bird Banding Association, now called the Association of Field Ornithologists.

He assisted in the formation of the Connecticut Rare Records Committee, and has served as the Committee's Chairman since its inception.

Dr. Clark played a major role in the Connecticut Breeding Bird Atlas. He helped to organize the Atlas project, participated as a field observer, and wrote and edited major portions of the soon to be published *Atlas of Breeding Birds of Connecticut.*

Dr. Clark's knowledge of ornithological literature is extraordinary, and he has served as a major source of information on numerous editing and research projects by field ornithologists and biologists. He has published important articles on various aspects of bird behavior, morphology, and evolution since receiving his Ph.D. at Yale University. With Alan Brush he has edited a major volume *Perspectives in Ornithology.* This book contained essays presented for the Centennial of the American Ornithologists' Union.

Dr. Clark has been a member of the editorial staff of C.O.A.'s quarterly publication, *The Connecticut Warbler,* since its inception and has served as final proofing editor of nearly all articles appearing in "The Warbler" for the past six years. He himself has authored more than 15 articles that have been published in "The Warbler."

Dr. Clark has also been a leading member of the C.O.A. Research Committee, coordinating surveys on the status of the Common

Nighthawk and the Whip-poor-will in Connecticut.

Dr. Clark has been and remains very active with the Natchaug Ornithological Society. He has been a leader of the bird banding group in the Storrs area, and is presently in charge of the Society's major revision of Jerauld Manter's *Birds of Storrs, Connecticut, and Vicinity.*

Dr. Clark was instrumental in saving the bird collection of John Sage. He brought the collection to the Connecticut State Museum of Natural History in Storrs, where it was restored and now is preserved. He continues to assist with the building of the museum which houses one of the most important and extensive collections of Connecticut birds.

He also played a major roll in the formulation of Connecticut's list of Endangered and Threatened bird species, by serving as an advisor on birds, to the State of Connecticut's Department of Environmental Protection.

Dr. Clark holds, and quite rightly so, the title of "State Ornithologist." On behalf of the membership of the Connecticut Ornithological Association, it is my privilege to present Dr. George A. Clark, Jr. with the Mabel Osgood Wright Award.

WINTER ECOLOGY OF THE LONG-EARED OWL IN CONNECTICUT

Dwight G. Smith[1] and Arnold Devine[2]

The Long-eared Owl (*Asio otus*) is a rare to locally uncommon winter resident in Connecticut and often roosts in loose communal associations. Its wintering numbers can fluctuate from year to year. Little has been published regarding the status of this species in the state. Because of its rarity, it has been listed as rare and endangered (Dowhan and Craig 1976), as a Species of Special Concern (DEP 1985) and more recently, as an Endangered Species in Connecticut (DEP 1992). Previously published reports on this species within the state include counts of individuals obtained during the annual Christmas bird counts (McKay *et al.* 1983; Smith and McKay, 1984; annual issues of *American Birds*) and notes on the very few nesting records within the state (Sage *et al.* 1913, Mackenzie 1961, Manter 1965, Zeranski and Baptist 1990). Billings (1990) recently summarized general information regarding the ecology of this species and also a list of likely spots to search for individual Long-eared Owls in Connecticut.

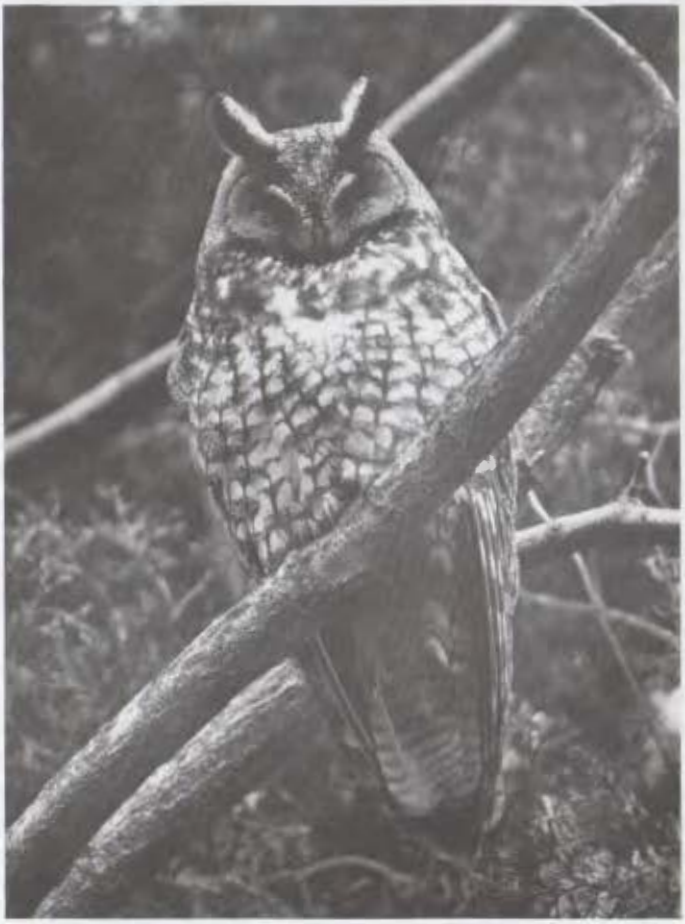
Herein, we describe our observations of the habitat associations, habitat selection, roosting sites, and diet of wintering Long-eared Owls which we have gathered over the past 23 years within the state. This work is part of a long-term study of the ecology of Connecticut raptors. Marti (1976) reviewed studies of Long-eared Owl prey selection in North America and developed a diet profile for this species. He also commented on extensive areas from which no information is available on Long-eared Owl food, including Connecticut. This paper helps fill one such gap.

METHODS

Beginning in 1970, as time permitted, stands of suitable conifers—hemlock, pine, cedar, and spruce—were searched from November to April for signs of Long-eared Owls. We looked through each conifer stand for pellet deposits, prey caches, feathers or whitewash signs beneath potential roosting trees. When Long-eared Owl sign was discovered we confirmed species presence by repeated visits, when necessary, to observe the owl. In subsequent years we rechecked sites (again, as time permitted) used in previous years several times during the winter, usually beginning in mid-November and continuing into April.

Roost site habitats and roost sites within the habitats were logged

and recorded on topographic maps. To avoid disturbing the birds, we collected additional information on roosting sites, such as height and other characteristics, following their departure in spring. We evaluated Long-eared Owl winter roost sites in terms of (1) roosting site distribution within the state, (2) roosting site habitat (type, size and complexion of woodland and adjacent habitat), (3) roosting site fidelity (number of winters the site was occupied by one or more owls) and (4) specific roost site (location of the owl or owls roosting within the tree).



Long-eared Owl. *Photo by Arnold Devine*

Pellets were collected from beneath roost sites at monthly intervals, or more frequently, until the site was abandoned. Pellet collections were placed in plastic envelopes with para-dichlorobenzene, labeled and stored for later analysis. Prior to dissection, pellets were air-dried for 10 days, then weighed on a Mettler balance. Maximum length and width measures of whole pellets were recorded to the nearest 0.5 mm.

Pellet analysis followed methods described by Marti (1976): whole pellets were dissected with forceps and all identifiable contents such as bones, feathers, and hair separated; contents of each pellet were kept separate; bird and mammal remains were identified to species using keys and reference specimens, skeletal, hair and feather collections. Remains of some prey could only be identified to the genus. Skulls, mandibles, legs, feet, sternums, and synasacrums of birds were grouped to estimate the number of individuals in each pellet collection. Skulls and/or mandibles were counted to determine the number of small mammals.

RESULTS

Winter Roost Site Distribution

The distribution of observed Long-eared Owl winter roost sites in Connecticut is shown in Figure 1. Most of the roost sites are scattered along Connecticut's shoreline, generally within 10 km or less of Long Island Sound, with the few reported inland sites along tidal rivers and their major tributaries, such as northward in selected habitats along the Connecticut and Quinnipiac Rivers. Although Long-eared Owls are also reported inland from time to time, a review of Christmas bird counts for Connecticut also suggests a concentration of winter Long-eared Owl records from shoreline localities (Christmas bird count issues of American Birds). Apparently suitable conifer stands are available throughout the state, especially in the Northwest Hills (e.g., the pine woodlands of Mohawk Mountain) and it may be that Long-eared Owls winter in these sites but have so far been overlooked. The pattern of documented Long-eared Owl winter distribution within the state suggests a general southward drift or migration beginning in the later part of October and continuing into winter that essentially stops at and by Long Island Sound. The owls then scatter inland along the estuaries, marshes, and swamps that border the Connecticut River's tributaries.

Roost Site Habitat Requirements

From 1973 to 1993 we found a total of 46 different winter roost sites of Long-eared Owls in Connecticut (Table 1). It would appear that the

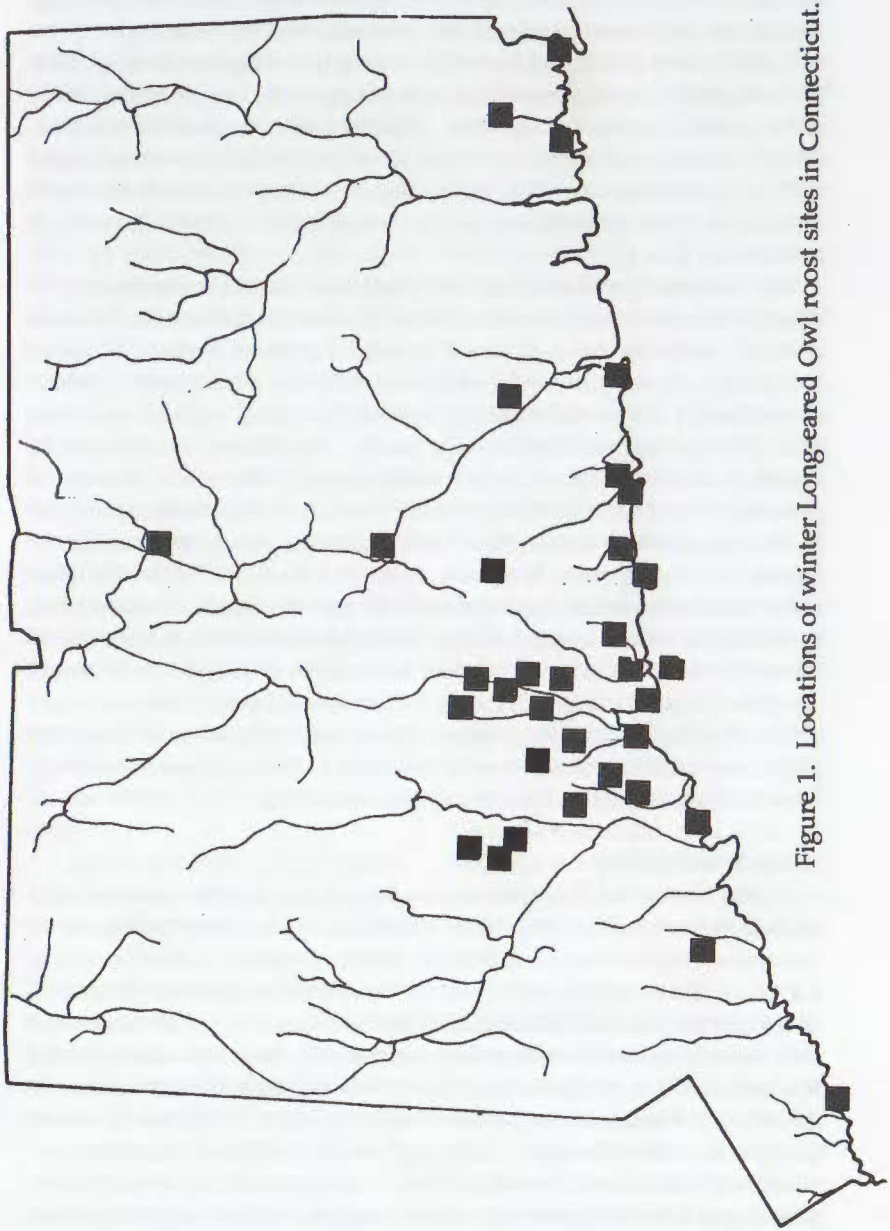


Figure 1. Locations of winter Long-eared Owl roost sites in Connecticut.

most important criteria for Long-eared Owl winter roost site habitat requirements in Connecticut include the availability of dense, cool stands of conifers for roosting, with adjacent open areas such as fields, meadows, pastures, cropland, or open marshes for hunting.

Slightly over 80% of the roost sites were in coniferous habitat, 13% were in mixed coniferous and deciduous growth and the remaining 6.5% were in deciduous habitat. Of the conifer roost sites selected, 28.3% were in cedar groves, 28.3% in white or red pine stands, and 8.9% in spruce stands. The remaining sites were located in hemlock woods or yew plantations, or in ornamental conifers located in residential areas.

The conifer stands selected for roost sites varied considerably in overall size, complexity and maturity of trees. Roost site habitats include: medium to large-sized stands of pine or spruce on water company property; hemlock stands on hillsides above lakes, ponds, or wetlands; cedar stands along wetlands, rivers, or tidal marshes; and ornamental conifers in city parks, cemeteries, residential or commercial landscapes. Occasionally the owls roosted in thickets of greenbrier and Oriental bittersweet. The silviculture characteristics of the roost site habitats also varied greatly, ranging from dense stands of pine, spruce, hemlock, or cedar. Almost 30% of the sites were located in small aggregations of conifers—red or white pine, hemlock, or cedar located within a larger woodland matrix dominated by deciduous trees. A few roost sites (6.5%) were in single conifers planted as ornamentals in the yards of suburban houses. Generally, however, Long-eared Owls used ornamentals only for very brief periods, about one to four days. This suggests that they were in transit, rather than in winter roost sites.

Roost Site Fidelity

Unless disturbed, Long-eared Owls may roost in the same site for several years (Smith 1981). Most roost sites were occupied by one or two individuals each year although one roost site in Glastonbury held a total of 32 wintering owls (Noble Proctor pers. comm.). Over 64% of the winter roost sites were used for two or more winters. Several sites have been used more or less consistently over a decade, while a few sites such as at Quinnipiac River State Park and Hammonasset Beach State Park have had wintering Long-eared Owls fairly consistently a decade or longer. Although we did not band or otherwise mark individual birds, we often found that the same locale within the roosting site habitat was reoccupied, suggesting that such sites meet very specific ecological requirements.

Roost Site Position

About 70% of the observed roost sites were in trees either bordering edge or open habitat or within 20 meters of edge habitat. None were located deep within the interior of stands, even though some water company conifer stands cover several hundred acres.

Roosting location was almost always well within the canopy. In dense, mature spruce groves these owls typically roosted within the middle canopy, away from the canopy edge and within 0.5 m of the trunk. In tall, straight cedars and red pines with small, tightly bunched and very high canopies, the Long-eared Owls invariably roosted high within the middle of the available canopy. In submature white pine and cedar with comparatively open canopies they typically roosted within the densest concentration of foliage. A similar roosting site preference was observed when the owls roosted deep in thickets of greenbrier and Oriental bittersweet.

Diet

From 1974 to 1986 a total of 712 pellets were collected for an analysis of Long-eared Owl diet in Connecticut. All were collected from beneath confirmed roosting sites during the course of several weeks each winter.

Pellet Dimensions and Content

Pellet length averaged 60.1 mm (range 35.1-88.3); width, 21.4 mm (range 14.5-23.1); and weight, 44.9 gm (range 36.5-72.1). The number of prey individuals per pellet averaged 1.35 (range 1-4 for a subsample of 348 of the 712 total pellets.

Prey Species

A total of 981 prey individuals of at least 21 different species were identified from the pellets. These included 16 mammalian and five avian species. Mammals were the most important prey (97.8% of all individuals). Of the mammals, Meadow Vole (*Microtus pennsylvanicus*) was the single most important prey species (72.2%) followed by Short-tailed Shrew (*Blarina brevicauda*). Other important mammal prey included White-footed Mouse (*Peromyscus leucopus*), House Mouse (*Mus musculus*) and Norway Rat (*Rattus norwegicus*).

The occasional appearance of Norway Rat, juvenile Eastern Cottontail (*Sylvilagus floridanus*), Southern Flying Squirrel (*Glaucomys volans*) and Red Sqirrel (*Tamiasciurus hudsonicus*) reveals that Long-eared Owls may take larger prey when available or perhaps when driven by hunger. These larger mammal species plus birds and an unidentified Chiroptera, reveal some versatility in obtaining food.

Long-eared Owl prey in Connecticut includes two species, red squirrel and Long-tailed Weasel (*Mustela frenata*) that are not listed in Marti's (1976) comprehensive diet profile for this owl in North America.

The importance of Meadow Voles in the diet of Connecticut's wintering Long-eared Owls confirms the extensive use of open habitats, such as farmland, hayfields, meadows, pastures, and waste areas for hunting. This use of open areas for hunting by a woodland roosting raptor species was noted three decades ago (Getz 1961). At the Connecticut roosts, we occasionally observed Long-eared Owls departing the roosting site in the twilight hours immediately before darkness and to quarter over adjacent open habitats. It would appear that the presence of such nearby open areas for hunting is a basic requirement, along with the need for roosting conifers. Also notable is the fact that in some areas Long-eared Owls exploit small mammals during fall and winter, then shift to avian species in spring with the increasing availability of migratory birds.

ACKNOWLEDGMENTS

We gratefully acknowledge the contributions of Noble Proctor, Mark Szantyr, Frank Mantlik, John Gaskell, Ken Petit, Dan Barvir and Ed Shove. All have provided observations of roost sites, food habits and distribution data. Noble Proctor provided us with a list of roost sites that he has consistently checked over a number of years.

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1. Biology Department, Southern Connecticut State University, New Haven, Connecticut 06515.

2. Department of Environmental Protection, Waste Management Bureau, Hartford, Connecticut 06106

Table 1. Selected list of wintering Long-eared Owl roost sites in Connecticut.

Location	Habitat	Max. No. Owls Obs.	Years Used
Bethany-Atwater	extensive cedar stand	3	3/8
Branford**	Hemlock stand	4	2/5
Branford Ponds **	White Pine stand	3	3/5
Cheshire	cedar stand along river	2	1/3
Cheshire	White/Red Pine plantation	2	1/4
Derby Reservoir**	Red Pine water company	4	7/8
Durham Meadows	Mixed deciduous scrub thickets	2	1/5
Fairfield	cedars/deciduous woodland	2	1/2
Gillette Castle**	Hemlock stand	3	2/5
Glastonbury**	White Pine/Red Pine stand	32	2/4
Greenwich Point*	Pitch Pine/cedars	2	3/9
Greenwich Point*	Bittersweet thickets	2	1/4
Groton**	mature cedar/greenbrier	3	5/6

* Long-eared Owls occurred at these locations almost every fall and sometimes spring, but these were migrating individuals that did not remain throughout the winter.

**Long-eared Owl sites and information provided by Noble Proctor.

Table 1. Selected list of wintering Long-eared Owl roost sites in Connecticut. (Continued)

Location	Habitat	Max. No. Owls	Obs. Years Used
Guilford Sluice	immature pine/deciduous woods	3	3/8
Hamden-Clark's Pond	White Pine grove	2	3/9
Hamden	Mixed cedar/deciduous woodland	2	3/3
Hammonasset*	cedar stand	4	9/12
Hammonasset*	scattered cedar/deciduous	2	3/12
Lake Saltonstall	mature White Pine/Hemlock	3	3/8
Lake Saltonstall	immature White Pine stand	2	1/8
Middlebury	White Pine grove	2	1/8
Milford	Norway Spruce stand	2	2/8
Milford Point	mixed cedar/deciduous	3	3/15
New Haven-Lighthouse*	willow/sumac scrub growth	2	2/8
North Haven	tall cedars	1	1/8
North Stonington**	cedar stand	3	2/3
Old Saybrook	White Pine plantation	1	2/4
Orange-Wepawaug	Red/White Pine stand	2	4/9
Orange	water company pine plantation	1	1/8
Oxford	Immature White Pine stand	2	2/9
Oxford	dense Norway Spruce stand	1	2/6
Oxford	small cedar stand	1	1/3
Oxford	hillside small Norway Spruce stand	1	1/3
Quinnipiac St. Pk.	tall cedars stand	1	1/10
Quinnipiac St. Pk.	White Pine/Deciduous stand	2	2/10
Quinnipiac St. Pk.	cedar grove	1	1/8
Quinnipiac River	yew plantation	2	2/10
Quinnipiac River	large cedar stand	1	2/3
Sachem's Head**	cedar stand	3	3/5
Stonington**	cedars/greenbrier thickets	6	7/10
South Windsor	spruce grove	1	1/2
Thimble Islands**	Black Pine/cedar/greenbrier	2	2/4
West Haven	ornamental conifers	4	1/5
West Haven	ornamental Norway Spruce	1	1/4

* Long-eared Owls occurred at these locations almost every fall and sometimes spring, but these were migrating individuals that did not remain throughout the winter.

**Long-eared Owl sites and information provided by Noble Proctor.

Table 2. Winter food of the Long-eared Owl in southern Connecticut.

Prey Species	No. Individuals	% Individuals
Short-tailed Shrew (*Blarina brevicauda*)	121	12.3
Masked Shrew (*Sorex cinereus*)	4	0.4
Sorex spp.	3	0.3
Star-nosed Mole (*Condylura cristata*)	9	0.9
unidentified Chiroptera	5	0.5
Eastern Cottontail (*Sylvilagus floridanus*)	2	0.2
Red Squirrel (*Tamiasciurus hudsonicus*)	1	0.1
Southern Flying Squirrel (*Glaucomys volans*)	1	0.1
White-footed Mouse (*Peromyscus leucopus*)	38	3.9
Southern Bog Lemming (*Synaptomys cooperi*)	2	0.2
Red-backed Vole (*Clethrionomys gapperi*)	2	0.2
Meadow Vole (*Microtus pennsylvanicus*)	708	72.0
Pine Vole (*Microtus pinetorum*)	2	0.2
Norway Rat (*Rattus norvegicus*)	17	1.7
House Mouse (*Mus musculus*)	39	4.0.0
Meadow Jumping Mouse (*Zapus hudsonicus*)	3	0.3
Long-tailed Weasel (*Mustela frenata*)	1	0.1
Total Mammals	958	97.8
Mourning Dove (*Zenaida macroura*)	1	0.1
Downy Woodpecker (*Picoides pubescens*)	1	0.1
Blue Jay (*Cyanocitta cristata*)	4	0.4
House Sparrow (*Passer domesticus*)	3	0.3
Starling (*Sturnus vulgaris*)	3	0.3
unidentified Passerines	11	1.1
Total Birds	23	2.3
Total Prey Individuals	981	

THE UPS AND DOWNS OF A VIRGINIA RAIL POPULATION

Gordon Loery

The Virginia Rail (*Rallus limicola*) is a brownish, chicken-shaped, meadowlark-sized bird with a long bill that nests in marshes along the Bantam River and its tributaries, at the White Memorial Foundation, in Litchfield. Their loosely woven nests are attached to the stems of cattails or sedges, from a few inches to a foot or more above the ground or water and are thus vulnerable to spring flooding. The birds themselves are not uncommon in their preferred habitat, but are rarely seen because of their secretive habits. They stay close to the ground as they move through the dense marsh vegetation, are more apt to run than fly when frightened and are more active at dawn and dusk. The most likely place from which to observe them locally is the recently reconstructed boardwalk around the north shore of Little Pond. Even there, they are more often heard than seen. The earliest spring date for a Foundation sighting is April 28. A few linger into January if the weather is mild but most migrate to warmer wintering grounds despite their limited powers of flight.

In the process of monitoring a 20-acre marsh at the mouth of the Bantam River (where it enters the north bay of Bantam Lake) by means of annual Breeding Bird Censuses, we have accumulated a record of the ups and downs of a Virginia Rail population since 1965. The results are shown in Figure 1.

All wildlife populations go through cycles, but in this case the slopes of the peaks and valleys are steeper and the latter are higher and deeper than expected. All of this requires some explanation. Why, for example, the sudden jump from three in 1973 to 15 in 1974? The answer to this question is simple. Nineteen seventy-four was the first year that Andrew Magee, our observer, began playing back taped rail calls to locate territorial males. Even an experienced birder cannot obtain a complete count of these elusive marsh residents without the use of special equipment.

The second, more interesting question is "Why the almost complete absence of rails since 1984?" The answer this time does not appear to have anything to do with variables introduced by the observer. There were floods on this census plot at the peak of the nesting season in 1979, 1982 and 1984, severe enough to enable Andrew to paddle a canoe over most of the marsh. It looks as if the rails were recovering from one such disaster (1979-81), but three in a period of six years was too much for them.

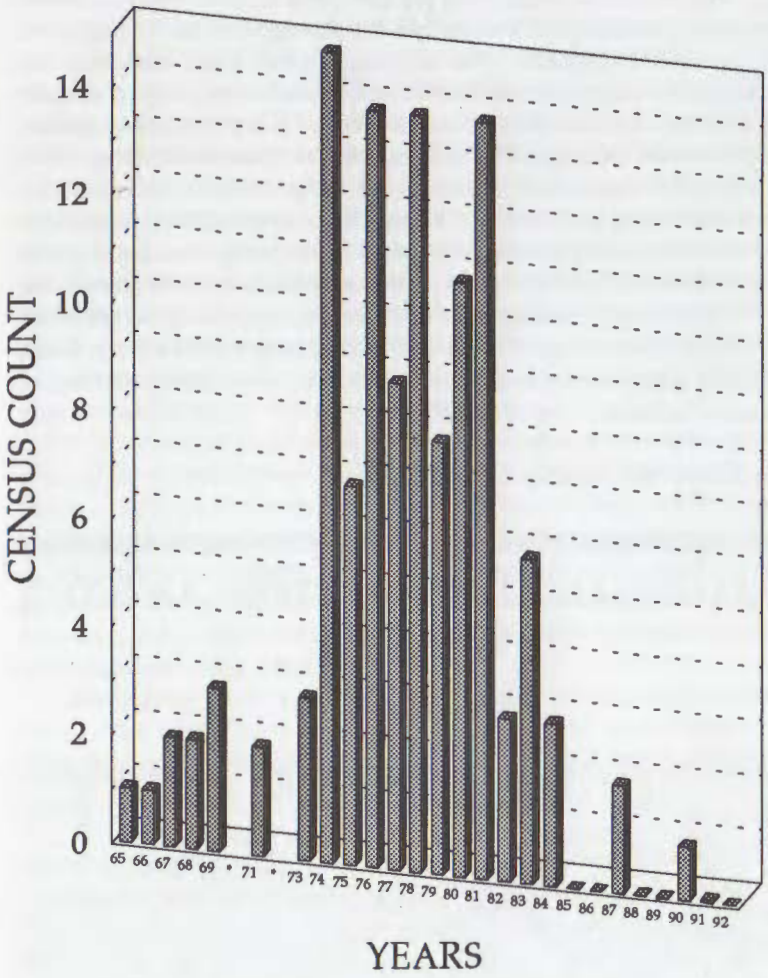

Figure 1. Results of Virgina Rail censuses at the White Memorial Foundation, Litchfield, between 1965 and 1992 (no censuses in 1970 and 1972).

One other set of observations may help to complete this story. Dave Rosgen, one of our most dedicated volunteers, saw over 20 Virginia Rails in Mallard Marsh and around Little Pond (with the help of a tape recorder) while leading a field trip for one of his classes in early June of 1991. At the same time Andrew and I heard and saw two Virginia Rails during a three-minute Breeding Bird Survey stop at the point

where Miry Brook passes under Webster Road (without the help of a tape recorder). The latter were the first rails we have ever recorded at any stop on either of the two roadside surveys we have conducted over a period of 25 years. All of this suggests that rails were not uncommon in the upper reaches of the Bantam River that year despite their absence from the census marsh. Why? Changes in vegetation may provide at least a partial explanation for this phenomenon. We have noticed that cattail stands have expanded in the upstream marshes in recent years but not in the census marsh. Perhaps the rails build their nests higher in cattails than in the sedge hummocks that occupy much of the latter. Also flood waters may rise higher in the latter and be augmented by the waves created by passing motor boats with water skiers. In any case, it would appear that Virginia Rails, displaced from the census marsh by floods, may have resettled in upstream habitats more to their liking.

Alain White Rd., Morris, CT 06763

HAMMONASSET: THE BITTERN AND THE SPARROW

Florence McBride

On the afternoon of Monday, October 9, 1989, I was scouting for a field trip at Hammonasset Beach State Park in Madison. While trying to get a clear look at two sparrows in the short grass of the picnic area near Cedar Island, I became aware of something behind them. Refocusing revealed it to be an immature American Bittern standing motionless against the longer marsh vegetation, approximately sixty feet away. It was holding its neck and head at an angle that echoed the curves of the plants behind it. Ignored by the bird, I spent several minutes admiring the beautiful brown feathering of the back and the long neck feathers, noting the light iris, yellow lore area, long bill and legs. It was an unaccustomed luxury—and an aesthetic experience—to see a member of this species in such close proximity, with time to absorb and appreciate detail. I followed it with my binoculars as it slowly and deliberately began walking along the edge of the long grass. Very gradually it began to accelerate.

Suddenly shattering the idyllic mood of its observer, the bittern darted to snatch a sparrow that had been hidden from my eyes by the

grass. It grasped the sparrow by the back of the neck, adjusting its crushing hold a few times, then lowered its prey, appearing to stab it (or possibly to hit it against the ground) with the strong bill, whose lethal capabilities I had not given much thought to before. Then it picked up the sparrow, and in one motion opening its long bill and tilting back its head, it engulfed the front half of the smaller bird, leaving only the rump and tail visible. That frozen-frame moment when the bittern paused with the sparrow's tail, cocked at a slight, unnatural angle, protruding from its bill, seemed unspeakably strange, though reason knew that is was not at all 'unnatural,' but part of a fundamental natural process that makes life possible. A second gulp, and what had only a minute before been an invisible living creature like those I'd been trying to watch, a sparrow presumably looking for food in the grass, was now an invisible object, an inert part of the food chain—and food for thought as well.

The bittern continued to survey the other sparrows hopping about the nearby grass and bushes. It was surprisingly hard not to cry "Look out!" to an apparently insouciant Field Sparrow that was flitting low in a bush, drawing the attention of bird which had just demonstrated its kinship with raptors. But then two people with rollicking dogs broke into the scene, distracting both birder and bird; and when I looked quickly back, I could see only the place where the bittern—and the sparrows—had been.

Viewed from one perspective, this experience was a self-contained event that could be recorded as a sighting in Field Notes: *"At Hammonasset Beach State Park on October 9, 1989 at approximately 2:30 pm, an immature American Bittern was observed catching and eating a probable Song Sparrow."* But for me it was much more than an interesting piece of ornithological data, observed first-hand. For weeks afterwards, literary fragments kept surfacing in my mind — "Nature red in tooth and claw...Death in the Afternoon...The biter bit... In the midst of life we are in death." Some of these seem to resonate to the experience that has evoked them, others are probably just trivial examples of free association. I'm still searching for ways to understand and describe what I saw that day, the relationships of beauty and violence, life and death, that I saw that day. The bittern and the sparrow have given me—forced on me—a new sense of profound ironic truths which we struggle to express in words.

64 Woodlawn St., Hamden, CT 06517

SPREAD-WING AND TILTING DISPLAY OF THE WHITE-BREASTED NUTHATCH

Louis R. Bevier

The White-breasted Nuthatch (*Sitta carolinensis*) is a species unusually versatile in its postures, performing varied forms of displays with the skill of an acrobat. The most familiar habit of this quirky bird is the way it moves head downward along the tree trunk, pulling its neck back and pointing its bill straight out from the bark. Many accounts describe the peculiar antics performed by this nuthatch, such as bill-sweeping around the nest site, but most thorough are those of Lawrence Kilham and Winsor Tyler. Those authors, among others, have described the spread-wing and tilting actions that are occasionally performed by the White-breasted Nuthatch, but no description adequately accounts for what I observed on 16 April 1992 while I was hiking along the Fenton River in Mansfield, Connecticut. There I observed and photographed a White-breasted Nuthatch exhibiting an unusual combination of displays apparently directed toward a female White-breasted Nuthatch.

Although the actions I observed were novel to me, similar behavior has been seen by others, and my aim is to build on those observations guided by the admonition of Edward Armstrong (1965) that "an interesting observation of a bird's behaviour should be no less carefully recorded and reverently preserved than the type specimen of a new subspecies." The following account is based on my field notes.

It was a cool and overcast morning when I had stopped to look through a flock of chickadees and kinglets along the Fenton River. I noticed a male White-breasted Nuthatch perched about twenty-five feet above the ground on a narrow horizontal branch of a maple near the streambed. What kept my attention was his posture, which was rigid, or frozen, with wings fully outspread and tail flared. Most unusual were the movements performed by this nuthatch. With wings stiffly extended, it would gradually rotate forward from perching upright to hanging upside-down and then rotate back through the same arc to an upright position over the course of half a minute or so. Upon tilting forward and downward, the head was lowered and the nape feathers raised rough, his entirely glossy black crown showing well. This display was repeated several times, at one point the male moving to reposition himself on a larger branch where he continued the display. Interestingly, the bold black and white

patch on the underside of each wing (formed by the bases of the primaries and the primary coverts on the underwing) was now the most striking feature of this nuthatch (Figure 1). About twenty feet away and below the male was a female nuthatch perched horizontally and facing him (and away from me) on an even narrower branch. Her mostly gray crown was drawn close to her shoulders, and her bill was pointing slightly above horizontal. She remained fairly still, shifting slowly from side to side two or three times while uttering a soft, single call note. The male and female carried on this way for about five minutes.

Figure 1. White-breasted Nuthatch performing wing-spread display, 16 April 1992 at Mansfield, Connecticut.

Photo by Louis Bevier

Although I had made some squeaking sounds to attract birds prior to seeing this display, I remained silent while watching these birds over the next 20-30 minutes. Eventually, the birds moved off together, foraging in nearby trees; the male occasionally sang from higher in those trees. The pair remained loosely associated with the flock of chickadees and followed them out of my sight downstream and

through the woods.

As stated above, none of the displays that I observed are undescribed, but the context in which they were given and the particular combination of poses apparently are undescribed or at least rarely observed. Several observers have reported nuthatches displaying with contour feathers elevated, tail spread, and wings outspread while swaying side to side towards squirrels, chipmunks, and other birds (Stoner 1943, Kilham 1968, Teal 1974, Bancroft 1987). Charles Long (1982) describes several instances of this display, including many that he induced using stuffed squirrels. He also describes a similar display by the Black-capped Chickadee (*Parus atricapillus*). In all instances, the displays were given at the nest hole, or very close to it, and towards a potential nest predator such as a squirrel, mouse, or snake. Clearly, these displays were given towards potential nest robbers. Kilham, therefore, categorized the behavior as a distraction display but contrasted the nature of the nuthatch display with other "distraction" displays that are delivered while moving about, e.g., injury-feigning given by many ground nesting birds. The popular Stokes guides to bird behavior describe the wing-spread display, but illustrate a bird with the wings pulled back in a "V" rather than the more straight out extension that I observed; they also report the context for the display as near a nest or near a feeder (Stokes and Stokes 1983).

At the time of my observation, no squirrels were near either the male or female nuthatches, and the pair did not return to a nest hole. Indeed, it seems unlikely this pair had begun nesting based on the time of year and the fact they both were foraging with chickadees. The earliest egg dates for the White-breasted Nuthatch in New York are mid-April (Meade *in* Andrle and Carroll 1988). If the pair had selected a nest site nearby, they apparently were not yet regularly occupying it, a situation quite different from other observations of this behavior. Also, the birds did not seem to be visiting a cache of seeds that they might be defending, although I cannot absolutely rule out this possibility. There is a possibility that the display was directed at me, perhaps elicited by my previous squeaking. However, the other birds present had already moved off, and I had not made any noise for some time before seeing the wing-spread behavior. Long (1982) found that stuffed mammals moved near the nest sites with fishing line induced the displays even though he was not hidden from view during some experiments.

Although both sexes are cited as performing the behavior, the identification of the male White-breasted Nuthatch is not straight forward. At least 10% of females east of the Great Plains may have crowns that appear dark under field conditions, and 40% to 80% of

females in the southeast United States (especially Georgia and Florida) may have dark crowns (Wood 1992). No objective determination of error by field observers is given by Wood, but he rightly cautions against determination of sex on birds seen at a distance. Males always have an entirely glossy black crown, and dark crowned females show the least gray to the rear of the forehead. Based on these criteria and the fact that the bird I observed later sang, I am confident that a male performed the displays.

The tilting display is described by Tyler (1916) and is thought to be given rarely by lone males (Kilham 1972). Differing from Tyler's account, the male I observed did not sing while tilting its body up and down. The smooth motion with which this nuthatch moved, wings fully extended and rigid, was quite astonishing and unlike any account I have been able to uncover. Just how this bird managed to move in such a fashion remains a mystery to me. I was unable to see how the legs or feet were used to move the bird. Besides moving down trees head first, there is at least one account of a nuthatch hanging vertically downward—in mid-November in England, a Wood Nuthatch (*Sitta europaea*, or European Nuthatch) was observed hanging upside-down like a resting bat for 15 minutes, moving its head from time to time as it watched the movements of other birds (Burman and Burman 1990). What madness possesses the nuthatch? Interestingly, Hanging parrots of the genus *Loriculus*, found from India to New Guinea, regularly roost and rest hanging upside down (Campbell and Lack 1985).

The displays of the male nuthatch that I observed appear to have been directed at the female nuthatch, and although the spread-wing behavior has previously been observed in the context of repelling a potential nest predator, it appears that such an intimidatory posture may be used on occasion in courtship as well. In some species, the distraction display resembles behavior used in courtship and in begging for food, while in others, the sexual displays may resemble the paroxysms of a stricken bird, or rather one in distraction display (Armstrong 1965). Of special interest to me is the possible significance of the bold black and white patch displayed on the underwing. Based on the circumstances of the observations recounted above, the prominence of this patch may play a role in distraction of predators, intimidation of rivals, or as a signal of status to a potential mate. Such possibilities could be tested under controlled conditions and reveal more of the secrets of the White-breasted Nuthatch.

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P.O. Box 665 Storrs, CT 06268

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CONNECTICUT FIELD NOTES
FALL: AUGUST 1 - NOVEMBER 30, 1992

Jay Kaplan

Editor's Comment: Rare or unusual bird species sighted in Connecticut (see COA Field List) require that documentation be submitted to the Secretary of the Rare Records Committee, if they are to be included in the Connecticut Field Notes.

The fall season continues for four months, the longest of our reporting periods. Much can and often does happen during this time period, and this year was no exception. Both pelican species, a Bridled Tern, and a Gray Kingbird appeared, widely spaced, but only the latter remained long enough to be seen by more than a small handful of observers. An unusual loon off West Haven late in the period continues to spark debate as to its identity. Yet, it is not the rarities, but the general fall migration patterns that should be of greatest interest to those who study birds. When did the various shorebird species peak at Milford Point and in what numbers? How many hawks passed over Lighthouse Point or Quaker Ridge during the mid-September Broad-wing migration? Were there any reported warbler waves and, if so, where, when and of what species? Over the long term, the answers to such questions may help to determine the future of birds and of birding in Connecticut. In order to develop an accurate picture of trends in Connecticut, we need reports from a greater segment of our state's birding populace. A "migration" count, such as has been suggested for spring by a mid-Atlantic group, might be a worthwhile suggestion. However, it should be obvious that a one-day count cannot take into account such variables as weather patterns and their effect on migration. For those who have been regularly forwarding their reports, we thank you for the contribution you make to Connecticut ornithology. Many people help to put this column together, totaling hundreds of hours of observation in the field. Nevertheless, there were some holes in this year's fall season summary. There were, for example, no peak shorebird dates or numbers submitted for Milford Point. Perhaps we should borrow the "log book," as I know it contains such information from this heavily birded location.

The weather for the fall season was uneventful. There were no hurricanes or other major storms with which to contend. August was a bit cooler and drier than past years. Temperatures reached 90°F in

Hartford but twice during the month, and precipitation totalled 3.6 inches as compared to the usual 4.00 inches. September continued cool and dry. There was measurable precipitation on only five days during the month in the Hartford area, and never more than 0.8 inches, for a total of 2.43 inches. Normal precipitation for September is 3.94 inches. October was drier yet, with only 1.95 inches of rainfall for the month, as compared with a norm of 3.51 inches. Temperatures remained on the cool side. November was wetter with rainfall close to normal for the month. It remained cool with temperatures surpassing 60°F on only three occasions in interior regions.

LOONS THROUGH FALCONS

Good numbers of Red-throated and Common Loons were reported along the shoreline this fall (m.ob.), with 30 Red-throated Loons at Hammonasset Beach State Park (hereafter HBSP), Madison, November 7 (DR et al.). A possible **Pacific/Arctic Loon** was seen and photographed in West Haven November 24 (JY et al.). At this time, the photographs have not yet been received, but it should be noted that these two species can be most difficult to differentiate, particularly in winter plumage. Northern Gannets were reported along the entire coastline throughout November (m.ob.), with a report of 700+ at Harkness Memorial State Park (hereafter HMSP), Waterford, November 20 (DP et al.). This species, formerly uncommon in Connecticut coastal waters, has made numerous incursions into Long Island Sound in recent years, and not all sightings have been associated with northeast winds or unusual weather patterns. An **American White Pelican** was observed during an AFO/ABA Conference field trip to HMSP October 3 (DP et al.). The bird was reported resting on a sand bar from which it flew east, not to be relocated. A report has been forwarded to the Connecticut Rare Records Committee (hereafter CRRC). A single **Brown Pelican** was reported off Ram Island, Stonington, September 4 (RSCB), no doubt the last of the summer's incursion of this species. There were numerous reports of Snow Geese, primarily as October migrants, including an incredible 7900 at Lighthouse Point, New Haven, October 26 (AR, fide SM). Brant were reported from several shoreline locations, with a high of 100 at Greenwich Audubon Center, Greenwich, October 24 (FM). An unusual inland report came from Avon, where an injured bird was found walking along a suburban street October 30 (JK). Brant migrate in large flocks, often at night, and thus may often be overlooked by those who bird only during

the daylight hours. (For an interesting experience, try pointing a spotting scope at the full moon, while it is low in the eastern sky during peak migration periods. With patience, you may see good numbers of birds, although identification is certainly difficult). A Barnacle Goose of unknown origin was in Storrs November 10 and 28 (LBe,JM,MS). Eurasian Wigeon were at Aspetuck Reservoir, Easton, October 28 (CB), Lake Saltonstall, Branford, October 31 (NP) and, in what has become a regular location, West Haven November 24 (JY). Four Common Eider off Greenwich Point, Greenwich, September 27-28 (BO) were unusual and the only report for this species during the period. Black and Surf Scoters were off Waterford Beach November 7 (RSCB). A pair of Black Scoters was at Putnam Reservoir, Greenwich, October 26-31 (MP), and another was at Lighthouse Point Park November 8 (RE).

Lighthouse Point, New Haven, reported a good Osprey migration with 1935 birds recorded from August through October. The Quaker Ridge-Greenwich hawkwatching station, on the other hand, reported 410 birds, down 40% from the average over the previous six years (CC). There were numerous reports of Bald Eagles, primarily immatures, during the period. The two Barkhamsted fledglings were last sighted November 1 (DH), although the adult pair remained in the Barkhamsted area through the period (DR et al.). There were seven reports of Golden Eagles, including three seen from the Quaker Ridge, Greenwich, hawkwatch during the period (CC). Other "Goldens" were in Guilford August 12 (NP), Naugatuck September 13 (NP), Waterford (DP) and Sherwood Island State Park (hereafter SISP), Westport (CB), both October 21! It was a good year for Cooper's Hawk with two fledglings at White Memorial Foundation, Litchfield, August 4-14 (BD,DR) and two adults and a fledgling in the vicinity of Great Pond State Forest, Simsbury, September 19 (BK et al.). A high of 12 "Coops" were in Bridgewater September 20 (NC et al.). Various hawkwatch sites provided peak numbers for Broad-winged Hawks during the mid-September migration as follows: 1735 in Bridgewater, 4062 in Greenwich, 1033 in Litchfield, 3319 in Newtown and 1320 in Redding on September 12; 2000 in Litchfield and 2078 in Newtown on September 13 (fide NC).

COOT THROUGH OWLS

American Coot peaked at 50 at White Memorial Foundation, Litchfield, November 15 (BD,RN et al.). There were numerous reports of Lesser Golden-Plover along the coast, with up to five reported at one time at HBSP September 19 (DP). An adult

American Oystercatcher was observed feeding young, and a total of five or six birds were at Menunketesuck Island, Westbrook, August 31 - September 2 (JMo). More impressive yet were 24 birds at Bluff Point Coastal Preserve, Groton, August 12 - September 5 (DR, BD et al.) and 35 at Mumford Cove, Groton, September 10 (RSCB). Oystercatchers can reach impressive numbers in the fall, particularly following east coast storms; however, these birds were apparently not associated with any significant weather systems. An **American Avocet** was at Griswold Point, Old Lyme, November 2 (DP, TH). A Hudsonian Godwit was at SISP, Westport September 3 (LBr). Meanwhile, Marbled Godwits were at HBSP August 3 (DS), at Sikorsky Airport, Stratford, August 14 (m.ob.), at Seaside Park, Bridgeport (two), August 18-25 (m.ob.) and at Griswold Point September 9 (DP). A possible Little Stint was reported at Milford Point August 22 (RE et al.). The bird could not be relocated the following afternoon, when some 50 birders descended upon the area. (They were, however, treated to a magnificent display by a Peregrine Falcon that strafed and chased the shorebirds staging on the sandbars). *Calidris* sandpipers are extremely difficult to identify in the field; however, this bird was studied at close range by three experienced birders and a report has been forwarded to the CRRC. If accepted, this would be the first record for this species in Connecticut! Baird's Sandpiper reports included single birds in Guilford August 13 (NP), at HBSP September 14 (SY et al.) and at Griswold Point October 3-4 (BD, DP et al.), and two at Lordship Marsh, Stratford, August 16 (BD). No reports of Buff-breasted Sandpipers were received this fall. Two Long-billed Dowitchers were heard calling at Milford Point, Milford, August 1 (JB). Wilson's Phalaropes put in one-day appearances in Westbrook August 13 (NP), Ash Creek, Fairfield, September 10 (CB) and HBSP October 8 (DP et al.). Laughing Gulls peaked at 400+ at HMSP November 4 (DP). The 300+ at Griswold Point, Old Lyme, November 7 (BD) may have been part of this group. Laughing Gulls remained at Pequotsepos Cove, Mystic, through the end of the period (RSCB). Little Gulls were at Greenwich Point September 26-28, peaking at five on the 27th (JZ). It should be noted that the CRRC would appreciate all reports of both Little and Common Black-headed Gull. Sherwood Island State Park hosted three Lesser Black-backed Gulls with one bird seen October 3 reported to be of the *fuscus* race (RS). The *fuscus* race may be differentiated by the color of the mantle, which is nearly as dark as the Great Black-backed Gull and much darker than the commonly re-

ported *graellsi* race. Reports of the *fuscus* race would require scrupulous details, as this would represent a first record for the state and one of very few for North America (pers. comm. Louis Bevier). Additional reports of Lesser Black-backed Gull came from Peat Swamp Reservoir, Seymour, October 11 (BD,RN et al.) and HMSP November 9 (CB et al.). A Glaucous Gull was at Lighthouse Point Park, New Haven, October 30 (Ed Shove, fide FM). An adult Black-legged Kittiwake was at HMSP November 13 (DP).

Royal Terns were at Millstone Point on at least four occasions during the period (DP). Common Terns peaked at 500+ at Sandy Point, West Haven, September 5 (BD). A **Bridled Tern** was observed and photographed at Falkner Island off Guilford August 13-14 and 16. It is believed that this is the same bird that was photographed at this location June 27, the first documented state record for Connecticut (see CW 13:21-23). It should be noted that several southerly pelagic species were reported off the Massachusetts coast this summer/fall, including White-tailed Tropicbird, Magnificent Frigatebird, Bridled Tern, and Sooty Tern. It is hypothesized that these birds follow offshoots of the Gulf Stream that break off and travel west along the Massachusetts and Rhode Island coast and eventually into Long Island Sound. If one could predict the occurrence of these warm links to more tropical waters, it would certainly enliven summer birding along the coastline. Black Terns, reported less frequently the past several years, were off Millstone Point August 18 (DP) and Stonington Point, Stonington, September 1 (RSCB), and three were at Sandy Point, West Haven, September 5 (BD). Two Black Skimmers at Millstone Point August 18 (DP) were the only ones reported for the period. An unidentified alcid, possibly a murre species, was observed late in the day at HBSP November 7 (BD). Alcids are considered very rare winter visitors to Connecticut (Zeranski and Baptist, 1990), and, in fact, there are currently no accepted records for Connecticut of Common Murre or Razorbill at this time. All reports of alcids should be forwarded to the CRRC.

A Snowy Owl was found dead in the Hartford area in November and was taken to the Lutz Children's Museum, Manchester, where it was determined the bird was emaciated (fide GC). Snowy Owls, particularly immatures, often travel south in search of food during this time period, and many do not survive the winter season. Three Long-eared Owls were at Lighthouse Point Park November 2 (SM et al.), and another was at Greenwich Point Park November 19-21 (BO). The only Short-eared Owl reported was at Lighthouse Point Park

November 1 (Ed Shove fide SM). A Saw-whet Owl was injured flying into a building in Bloomfield October 29 (JK). The bird was later banded and released. The only other Saw-whet reports came from HBSP November 9 (JY) and Greenwich Point Park November 19 (m.ob.).

SWIFTS THROUGH VIREOS

Three late Chimney Swifts were at Mt. Carmel, Hamden, September 23 (AB). A Ruby-throated Hummingbird in Groton October 4 (RSCB) was almost a month behind schedule. Bluff Point State Park was a prime location for Yellow-bellied Flycatchers with three September 1, 2, and 6 (DP). *Empidonax* flycatchers are difficult to identify in autumn, particularly when immatures may have varying amounts of yellow on the breast and belly. Lighthouse Point Park usually provides the state's autumn records for Western Kingbird, but this year it was HBSP, where one was observed October 18 (JY). Western was not the only Kingbird of note this season, as the state's second record for **Gray Kingbird** was at Greenwich Point Park November 18-22 (BO et al.). The CRRC would appreciate any photographic evidence and written descriptions for this noteworthy record. Some observers believe that Purple Martin is declining in Connecticut, while others point to the appearance of new colonies to dispute this statement. The HBSP martin colony appears to be growing, with 18 birds August 13 (DR). Greenwich Audubon Center hosted 15 martins September 2 (EJ). HBSP is a staging ground for migrating Tree Swallows, with swallows peaking at 3000 August 31 (JMo). A late Tree Swallow was at HBSP November 25 (JMa).

Most observers journey to Lighthouse Point Park to observe migrating raptors, but there are other spectacles to behold at this location. Enormous flights of Blue Jays were noted September 30 - October 4, although an estimate of 3000 was obtained only for October 3 (SM). Common Ravens were in Stafford Springs September 30 (LB) and at Roaring Brook Nature Center, Canton, October 14 (BK). Such records are notable as we remain uncertain about where these birds go following the breeding season (GC). There were several reports of Gray-cheeked Thrush in southeastern Connecticut (DP) during the period, but October 4 was the peak date for this species as three or four were in Greenwich (EH) and three more were at SISP (RS). An extensive network of bluebird nest boxes has certainly benefited Connecticut's Eastern Bluebird population. An impressive flock of 200 bluebirds was at Lighthouse Point Park November 14 (Ed Shove, fide SM), and additional flights approaching this number were noted on several other days during this period. A

very late Red-eyed Vireo was noted at Greenwich Point Park November 19 (m.ob.).

WARBLERS THROUGH GROSBEAKS

There were a number of interesting, as well as very late, warbler reports this season. Golden-winged Warblers were in Woodbury August 30 (RN), at Bluff Point Preserve, Groton (a male), September 2 (DP) and at Fairfield's Birdcraft Museum (banded) September 12 (AO). A late Nashville Warbler was in Pawcatuck November 15 (RSCB); and another was at Greenwich Point Park November 18-22 (BO et al.). A Worm-eating Warbler at the Connecticut College Arboretum, New London, September 27 (GC) was a month later than previous fall dates for the area. An immature Mourning Warbler was at Bluff Point State Park September 2 (DP), and one was in Thomaston October 7 (RN); another was killed by a cat in New Hartford October 3 (fide JK). Common Yellowthroat is one species that lingers late into the fall season, thus a bird at Ferry Park, Rocky Hill November 29 (DR, KS) is not very unusual. November 16 was very late for a Wilson's Warbler in Mansfield (BL). Yellow-breasted Chats were at Bluff Point State Park September 6 and 12 (DP) and at Mt. Carmel September 7 (AB), and five were at Lighthouse Point Park October 11 (ED Shove, fide SM). A Blue Grosbeak was in Westport October 18-20 (CB,DP et al.). Three unusual sparrow reports have all been forwarded to the CRRC. They include a **Clay-colored Sparrow** at Millstone Point, Niantic, October 23, a **Henslow's Sparrow** at Griswold Point November 8, and an immature **Le Conte's Sparrow** at HBSP October 7 (all DP). Additional sparrow reports of note included 10-15 Vesper Sparrows in Southbury October 18 (BD,RN et al.) and 650 White-throated Sparrows in Canaan October 7 (DR). Lapland Longspurs, on the other hand, were reported from numerous shoreline locations from New London to Stratford, mostly in November (m.ob.). Flocks of Snow Buntings were also reported up and down the coast with 200 at HBSP in November (DR,BK et al.). A mixed blackbird flock of 20,000+ was reported passing over the Thames River near the Preston/Norwich border October 23 (DP). Winter finches were again in short supply. Single Pine Siskins were in Waterbury October 5 (RN) and Litchfield November 15 (RN), and 25 were at the Greenwich hawkwatch site October 25 (Frank Mantlik). The only Evening Grosbeak report received was of a single bird in Southbury November 1 (RN).

Contributors (Boldface) & Observers:

James Bair, Charles Barnard, Louis Bevier (LBe), **Andrew Brand, Lysle Brinker** (LBr), Canny Clark, **George Clark, Neil Currie, Buzz Devine, Carl Ekroth, Richard English, Merion Frolich,** Ed Hagen, **Ted Hendrickson,** Don Hopkins, **Elsbeth Johnson, Jay Kaplan, Betty Kleiner, Steve Kotchko,** Becky Lehmann, **Robert MacDonnell,** John Maynard (JMa), John McDonald (JMc), Frank Mantlik, **Steve Mayo, Joseph Morin** (JMo), **Russ Naylor, Alison Olivieri, Brian O'Toole, Matthew Popp,** Noble Proctor, **David Provencher,** Records of Southeast Connecticut Birds, Arne Rosengren, **David Rosgen, Richard Soffer,** Kathy Spada, Dori Sosensky, **Eric Sullivan,** Mark Szantyr, **Jeff Young,** Susan Yurkus, **Joe Zeranski.**

Literature Cited:

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71 Gracey Rd., Canton, CT 06019

Answer to Photo Challenge 4

Even though last issue's photo challenge appears straightforward, many of us must admit that we identify female, eclipse male, and juvenile ducks by their association with colorful alternate-plumaged drakes. Who wants to sharpen their 'brown' duck skills in late summer when shorebirds are on the hoof demanding our full attention because there are no brightly colored clues to their identity? The time we need these skills, however, is when an out-of-range individual appears on the local pond.

Our problem bird, repeated here, is a short-bodied duck with a rather short neck, big head, and heavy bill. Except for the crude barred effect on the flanks, our bird shows simple and dark uniform patterning. These features fit the group of diving ducks known as pochards, which include, for example,

both scaup and the Ring-necked Duck (*Aythya collaris*). The designation 'diving duck' is used as an ecological characterization for several unrelated groups of ducks, including eiders, mergansers, stiff-tailed ducks, and the pochards. The blackish front end of our bird quickly narrows the possibilities to four species, Ring-necked Duck, Greater and Lesser Scaup, and the one rarity to the Northeast, Tufted Duck. These all belong to the same genus, *Aythya*, a term I will use in the analysis that follows. The short but obvious tuft of feathers poking out from the back of the head at the occiput probably led most of us to the snap judgement that this is a female Tufted Duck.

Easy as that identification seems, this is a notoriously difficult group where snap judgements are frequently wrong. For the species mentioned above, nearly all of the diagnostic features are found in the head, so it is there that one should concentrate their attention when identifying an *Aythya*—bill tip pattern, bill and head shape, and eye color. Even the two species of scaup are best identified by features of the bill and head, despite the fact that the field guides would have us try to see the extent of the white-stripe on the open wing. The variation shown in the wing-stripe is extensive and overlaps between the two scaup species, but fortunately this overlap is mostly between male Lesser and female Greater (see Wilson and Ankney, *Canadian Journal of Zoology* 66 [1988]:2045-2048). The wing pattern is an important character in *Aythya*, but it is often difficult to see and judge accurately in the field. An important point all too often ignored with this group of ducks is the frequent appearance of hybrids, which require that we carefully study any bird away from its normal range before a firm identification is made. Connecticut has already experienced this problem with the appearance of a presumed hybrid Greater Scaup X Tufted Duck in the New Haven area in 1984. That bird was initially labeled by many as a Tufted Duck. It is extremely important, therefore, to note all characters for a particular individual.

The dark flanks on our bird mean that we are dealing with a female, young male, or eclipse male *Aythya*. The most likely contender in this case would be a juvenile male Ring-necked Duck; birds in that plumage show the light colored eye, the white band on the bill, and the wispy crest. The pronounced peak at the back of the head on Ring-necked Duck is usually a good character to separate it from Tufted Duck, but the crown of young birds, and even eclipse males, is less peaked than an adult's. Nevertheless, the highest point of the crown is still behind the eye, unlike our bird. Other features of the Ring-necked Duck are its longer tail, longer and more delicate bill, and gray wing-stripe, which we cannot evaluate. It is important to see the wing-stripe on any presumed Tufted Duck; the wing should show a bold white stripe into the outer wing. This stripe is not as extensive on females, but any intermediacy in this character could indicate a hybrid. Male Ring-necked Ducks in 'brown' plumages also usually show some faint indication of a pale vertical

bar at the front of the flanks, not shown by our bird. Female Ring-necked Ducks usually show a white eye-ring and line extending behind the eye, but summer birds may show only a slim eye-ring.

Both Greater and Lesser Scaup females show white around the base of the bill, but some Tufted Ducks have white there as well (a small amount is visible on our bird). Young male and eclipse male scaup do not show white at the base of the bill. So how do we know this is not a scaup? Again, head shape is useful. Greater Scaup has a more rounded head at the rear, and Lesser Scaup has a slight peak at the rear of the head, unlike the flat crown tapering off at the rear shown by Tufted Duck. As mentioned before, hybrids can cause problems. The bill pattern is important here. Tufted Ducks have a broad black tip with a pale band immediately behind. Lesser Scaup have the smallest area of black at the tip of the bill, and Greater Scaup show about twice the area of black as that species. Hybrid scaup X Tufted Duck show intermediate amounts of black at tip of the bill. Illustrations of bill patterns of *Aythya* species and hybrids can be found in *The Wildfowl Trust 17th Annual Report*, pages 49-65 (Gillham 1966). Male hybrids usually show a dark grayish vermiculated area on the back, a result of the influence of the vermiculated gray back of the scaup on the dark-backed Tufted Duck.

The best single source of information on identification of this group of ducks is found in *The Macmillan Field Guide to Bird Identification* (1989) by Alan Harris, Laurel Tucker, and Keith Vinicombe. This female Tufted Duck was photographed by Shawneen Finnegan 21 January 1991 in Ventura, California.

Louis Bevier

Photo Challenge 5. Identify the species. Answer next issue.

THE CONNECTICUT WARBLER

Editor

Betty S. Kleiner
5 Flintlock Ridge, Simsbury 06070

Associate Editors

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Louis Bevier, Storrs
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Roland C. Clement, Branford
Jay Hand, Old Lyme
Jay B. Kaplan, Canton
Frank Mantlik, South Norwalk
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Carl J. Trichka, Fairfield

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Guide for Contributers

Preparation of Manuscripts:

The editors welcome submission of articles and notes for *The Connecticut Warbler*. Manuscripts should be typed double spaced on one side of the sheet only, with ample margins on all sides accompanied with an IBM PC disk, if possible. Style of the manuscript should follow general usage in recent issues. All manuscripts receive peer review.

Illustrations:

The editors welcome submission of line artwork of Connecticut and regional birds. Good quality photographs of particular interest will also be considered. Line art should be submitted as good-quality photographic prints or in original form. All originals and prints will be returned promptly after publication prints are made.

The Connecticut Ornithological Association
314 Unquowa Road
Fairfield, CT 06430
Address Correction Requested

THE CONNECTICUT WARBLER

A Journal of Connecticut Ornithology

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ABOUT OUR COVER ARTIST:

Michael DiGiorgio

"Cedar Waxwing (*Bombycilla cedrorum*)"

We have chosen another of Mike DiGiorgio's excellent drawings for the cover of "*The Warbler*." Mike works as an illustrator for the "*Weekly Reader*" Magazine, a children's publication. He has recently completed the illustrations for the Connecticut Breeding Bird Atlas and is currently working on several other art projects.

We are grateful to Mike for his generosity in supplying us with a number of front cover drawings.

The Connecticut Warbler
A Journal of Connecticut Ornithology

Volume 13 Number 3 July 1993

Contents

Summer 1993

THE 1992-93 CONNECTICUT CHRISTMAS BIRD COUNT

Stephen P. Broker

Individual Count Summaries:

Seventeen Christmas Bird Counts were conducted in Connecticut for the seventh consecutive year. Listed below are summary data for each count, regional summaries for the 6 Northern, 5 Mid-State and 6 Coastal counts, and a State-wide tabulation of data. Information from several CBCs which extend into New York is presented based on combined results from New York and Connecticut regions of these counts. The greater portion of the Pawling, NY-CT count circle is in New York State.

The summaries are presented in the following format: Name of Christmas Bird Count (National Audubon Society/American Birds abbreviation for count); date of count; and compiler(s). "Noteworthy species" are those which are considered significant for the particular count area in which they were mentioned. "Species dropped" are those which have not been seen in a given count area for a period of ten years.

All other data are listed in the Tables. The count day total (High or Low count) is compared with the total for the 10 year period from the winter of 1983-84 through 1992-93. Species that are shown in the table as "Unusual Species" are those seen four or fewer times in the past 10 years, or species considered rare in Connecticut or in winter.

Northern Counts

Barkhamsted (BA CT): Saturday, December 26. Compilers: David Rosgen and David Tripp, Jr. Noteworthy Species (1): Common Raven.

Edwin Way Teale Trail Wood (EW CT): Saturday, January 2. Compiler: Marilynn Higgins.

Hartford (HA CT): Saturday, January 2. Compiler: Jay Kaplan. Noteworthy Species (3): Gadwall, Northern Goshawk, Chipping Sparrow.

Litchfield Hills (LH CT): Sunday, December 20. Compiler: Raymond Belding. Noteworthy Species (5): American Wigeon (CW), Northern Saw-whet Owl, Winter Wren, Ruby-crowned Kinglet, Gray Catbird.

Lakeville-Sharon (LS CT): Sunday, December 20. Compiler: Bob Moeller. Noteworthy Species (2): Common Merganser, Common Raven. Species Dropped (2): Turkey Vulture (was CW), Indigo Bunting (was CW).

Storrs (ST CT): Saturday, December 19. Compiler: Steve Rogers. Noteworthy Species (3): Fox Sparrow, Red-winged Blackbird, Eastern Meadowlark. Species Dropped (1): American Wigeon.

Mid-state Counts

Oxford (OX CT): Sunday, December 20. Compiler: Buzz Devine. Noteworthy Species (6): Ring-necked Duck, Turkey Vulture, Killdeer, Red-breasted Nuthatch, Red-winged Blackbird, Common Grackle. Species Dropped (2): Lesser Black-backed Gull, Red-headed Woodpecker.

Pawling, NY-CT (PA NY): Friday, January 1. Compiler: Sibyll Gilbert. Noteworthy Species (1): Fox Sparrow. Species Dropped (1): Northern Pintail.

Quinnipiac Valley (QV CT): Sunday, December 20. Compiler: Wilford Schultz. Noteworthy Species (5): Wood Duck, Northern Pintail, Wild Turkey, Carolina Wren, White-crowned Sparrow.

Salmon River (SR CT): Sunday, December 20. Compiler: David Titus. Noteworthy Species (3): Bufflehead, Wild Turkey, Yellow-bellied Sapsucker. Species Dropped (2): American Coot (was CW), Red-headed Woodpecker.

Woodbury-Roxbury (WR CT): Saturday, December 19. Compiler: Ed Hagen. Noteworthy Species (4): Northern Harrier, Red-shouldered Hawk, Wild Turkey, Long-eared Owl. Species Dropped (1): Chipping Sparrow.

Coastal Counts

Greenwich-Stamford (GS CT): Sunday, December 20. Compiler: Gary Palmer. Noteworthy Species (2): Peregrine Falcon, Virginia Rail. Species Dropped (2): Blue-winged Teal, Chukar.

New Haven (NH CT): Sat., Dec. 19. Compilers: Stephen Broker and Frank Gallo. Noteworthy Species (1): Peregrine Falcon.

New London (NL CT): Saturday, January 2. Compiler: Bob Dewire. Noteworthy Species (1): Sharp-tailed Sparrow. Species Dropped (2): Eurasian Wigeon, Dickcissel.

Old Lyme-Saybrook (OL CT): Sunday, January 3. Compiler: Jay Hand. Noteworthy Species (5): Wild Turkey, Ruby-crowned Kinglet, Brown Thrasher, Chipping Sparrow, Sharp-tailed Sparrow. Species Dropped (1): Blue-winged Teal.

Stratford-Milford (SM CT): Sunday, December 27. Compiler: Steve Mayo. Noteworthy Species (1): Clapper Rail. Species Dropped (3): Snowy Egret, Long-billed Dowitcher, Common Yellowthroat.

Westport (WE CT): Sunday, December 20. Compiler: Frank Mantlik. Noteworthy Species (2): Great Egret, Osprey.

76 Diamond Street, New Haven, CT 06515-1313

CONNECTICUT CHRISTMAS BIRD COUNTS 1992 - 1993

SPECIES	NORTHERN						MID-STATE					COASTAL						STATE
	BA	EW	HA	LH	LS	ST	OX	PA	QV	SR	WR	GS	NH	NL	OL	SM	WE	TOTAL
Red-throated Loon													9	5	25	32	3	74
Common Loon												17	11	45	32	15	5	125
Loon, Sp.																6		6
Pied-billed Grebe			1	1	1				3		1	10	4	6	6	3	1	37
Horned Grebe												24	18	78	25	36	42	223
Red-necked Grebe																1		1
Northern Gannet													1	1				2
Great Cormorant			1							4		69	71	64	36	51	49	345
D-C Cormorant										4		3	4	61	34	16	4	126
Cormorant, Sp.													2				2	4
Great Blue Heron		18	27	3		1	13	1	5	13	9	34	37	119	38	37	49	404
Great Egret												1					1	2
Yellow-cr. Night Heron												CW						0
Black-cr. Night Heron												5	1	---		22	4	32
Mute Swan		3					29	32	155	83	48	65	453	599	112	52	201	1832
Snow Goose			CW									1	5					6
Brant												1	6	145	4		26	182
Canada Goose	73	208	4726	691	2719	797	1758	1287	1710	635	5012	5292	3760	1175	1064	1427	3780	36114
Wood Duck			7				1		5			36	1			1	2	53
Green-wgd. Teal (Eur)																1		1
Green-wgd. Teal (Am)			7		2				7			10	20		5	12		63
American Black Duck	22	26	310	29	78	80	42	6	51	85	85	643	1164	596	874	1214	762	6067
Mallard	235	233	2108	436	155	220	282	131	823	264	546	2267	1167	1172	771	1291	1150	13251
Mallard Hybrid								2	1	7						10	5	25
Northern Pintail			CW					---	2			1	CW	CW	4	1		8
Blue-winged Teal			1									---			---			1
Northern Shoveler				2									CW		2			4

SPECIES	BA	EW	HA	LH	LS	ST	OX	PA	QV	SR	WR	GS	NH	NL	OL	SM	WE	TOTAL
Gadwall			1						3			5	81	83	4	83	20	280
Eurasian Wigeon													1	—		1		2
American Wigeon				CW		—					1	39	101	42	6	94	176	459
Canvasback						1	1					14	112	164	8	114	15	429
Redhead														3		1		4
Ring-necked Duck	3			3	1		7	10				556	10	57	82	11	482	1222
Tufted Duck												1						1
Greater Scaup						2				1		570	4649	203	456	3332	213	9426
Lesser Scaup			7	1								10	8		3	5		34
Scaup, Sp.													910		1			911
Common Eider														4	1			5
Oldsquaw				2								162	326	10	6	196	180	882
Black Scoter														27	3			30
Surf Scoter													5	101	21	27	1	155
White-winged Scoter												1	7		16	411	28	463
Scoter, Sp.													7					7
Common Goldeneye	2	2			27	1	14	4		70	1	165	196	256	213	484	257	1692
Barrow's Goldeneye															2			2
Bufflehead								2	1	7		383	85	601	100	57	167	1403
Hooded Merganser	10	2	1	5	3		6	7	8	11	1	200	117	328	4	18	108	829
Common Merganser	35	23	191	33	12	44	294	1685	104	127	1066	97	86	86	697	234	38	4852
Red-br. Merganser												173	284	742	227	368	327	2121
Ruddy Duck												23			2		30	55
Black Vulture											3							3

BA - Barkhamsted
EW - Edwin Way Teale-Trail Wood
GS - Greenwich - Stamford
HA - Hartford
LH - Litchfield Hills
LS - Lakeville - Sharon
NH - New Haven
NL - New London
OL - Old Lyme - Saybrook
OX - Oxford
PA - Pawling NY - CT (Formerly Hidden Valley)
QV - Quinnipiac Valley
SM - Stratford - Milford
SR - Salmon River
ST - Storrs
WE - Westport
WR - Woodbury - Roxbury

CW Count Period
— Not seen for 10 yrs.
XX Unusual Species
XX New High Count
XX New Low count (Bold)
XX New Species for Count

CONNECTICUT CHRISTMAS BIRD COUNTS 1992 - 1993

SPECIES	NORTHERN						MID-STATE					COASTAL						STATE
	BA	EW	HA	LH	LS	ST	OX	PA	QV	SR	WR	GS	NH	NL	OL	SM	WE	TOTAL
Turkey Vulture			1	2			4	15	34		38	20	15	3	1	1	33	167
Osprey																	1	1
Bald Eagle	4		7					5		2	11		CW	2	11	1	5	48
Northern Harrier	1		3					2	3		1		16	9	20	13	CW	68
Sharp-shinned Hawk	3	3	22	3	4	1	2	5	10	2	16	13	18	10	5	7	7	131
Cooper's Hawk		1	5	1	5	1	2	2	5	1	7	3	4	4	4	4	5	54
Northern Goshawk			1		1				2				2	CW		1		7
Accipiter, Sp.													1			1	1	3
Red-shouldered Hawk	1		2			5				1	1	3	3	1	6	2	4	29
Red-tailed Hawk	45	24	153	46	41	13	23	68	40	18	101	47	53	25	31	36	45	809
Rough-legged Hawk			1										---					1
American Kestrel		3	12	2	1	2	2	9	11	1	3	1	13	3	2	2	---	66
Merlin												CW		1		1		2
Peregrine Falcon			1									1	1					3
Falcon. Sp.																	1	1
Ring-necked Pheasant	1	1	8	4	7	6	10	7	5	1	16	8	9	4	6	7	25	125
Ruffed Grouse	16	1	2	9	4	4	3	7	1	5	3	2	2		4		3	66
Wild Turkey	83			131	67	6	25	63	1	4	10	1	16		7		2	416
Northern Bobwhite											1							1
Clapper Rail													1		1	1	1	4
Virginia Rail												1	6	7	5			19
Common Moorhen														1				1
American Coot				CW	8			1		---		19	5	2		1	2	38
Black-bellied Plover												3		19	18	2	32	74
Killdeer						1	1		5			28	20	2	9	23	29	118
Am. Oystercatcher														1	2			3
Greater Yellowlegs												1	4			1	11	17

Broker

SPECIES	BA	EW	HA	LH	LS	ST	OX	PA	QV	SR	WR	GS	NH	NL	OL	SM	WE	TOTAL
Ruddy Turnstone												13	5	14	98			130
Red Knot													5	8	14			27
Sanderling													88		59	161	60	368
Purple Sandpiper												17	32	14	11	1		75
Dunlin												**4**	**9**	45	291	377	**19**	745
Common Snipe			2			1	3		5		2		**3**	2	1	2	1	22
American Woodcock									7			CW	**1**	1	3	2		14
Laughing Gull																3		3
Bonaparte's Gull												99	1683	285	43	115	6	2231
Ring-billed Gull	43	22	1626	100	6	32	3002	850	540	627	1504	1628	4795	**597**	2076	3488	1900	22836
Herring Gull	43	773	**1460**	254	19	384	2565	510	**229**	456	4119	**988**	6361	**2516**	1678	3544	9632	35531
Iceland Gull			1				1						1					3
L. Black-backed Gull							---	1			1	1				1		4
Glaucous Gull																1		1
Great Bl-backed Gull	72	87	352	30	2	136	272	46	23	282	111	101	1277	234	293	599	342	4259
Black-lgd. Kittiwake													CW					CW
Gull, Sp.					17	35		84		83			700					919
Rock Dove	207	**80**	2097	**34**	293	933	**88**	609	498	**68**	374	692	768	547	312	1017	804	9421
Mourning Dove	207	156	750	691	552	345	246	650	617	198	768	575	589	287	489	385	494	7999
Monk Parakeet													CW			59	137	196
Barn Owl																	CW	CW
Eastern Screech-Owl	4		11	14	2		**6**	8	32	12	34	43	15	3	6	5	39	234
Great Horned Owl	2	6	7	10	4	3	---	2	11	10	24	17	27	6	22	2	9	162
Snowy Owl					1									1		CW		2

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CONNECTICUT CHRISTMAS BIRD COUNTS 1992 - 1993

SPECIES	NORTHERN						MID-STATE					COASTAL						STATE
	BA	EW	HA	LH	LS	ST	OX	PA	QV	SR	WR	GS	NH	NL	OL	SM	WE	TOTAL
Barred Owl	2	1	2	3		3	1	3	1	1	7	2	2	3	5		CW	36
Long-eared Owl				2					1		1			1				5
Short-eared Owl															2	1		3
N. Saw-whet Owl	6			5	1	3	1	1		1	8	1	CW	3	2	1	1	34
Belted Kingfisher	4	5	21	9	8	2	4	8	8	16	17	22	39	36	37	22	35	293
Red-hdd. Woodpecker							—			—					1			1
Red-bld. Woodpecker	2	20	37	12	5	19	12	21	13	22	64	82	27	15	50	19	38	458
Yel-bld. Sapsucker			3					2		1	3	6	4	1	6	4	3	33
Downy Woodpecker	69	58	289	113	63	100	90	90	72	97	224	265	166	38	128	120	142	2124
Hairy Woodpecker	17	13	52	18	16	16	17	46	13	19	52	35	23	3	41	20	27	428
Northern Flicker	3	22	136	6	2	26	48	29	65	54	76	77	121	49	93	53	63	923
Pileated Woodpecker	5		2	3	10	CW	2	6	1		7	7	4		6	2	6	61
Eastern Phoebe		2										2	1					5
Ash-thr. Flycatcher												1						1
Horned Lark	12	121	76	---	76	180			47		130	CW	73	28	20	44	1	808
Blue Jay	215	207	344	516	197	482	310	254	340	286	1203	602	482	256	452	276	423	6845
American Crow	492	399	9805	1172	407	567	1000	1317	868	482	4018	1322	4458	633	647	2060	4214	33861
Fish Crow			5				14				2	3	65	2	1	19	39	150
Common Raven	3			3	4			1			2							13
Black-cpd. Chickadee	981	503	1067	1099	318	942	474	737	479	897	1059	865	506	391	718	309	624	11969
Tufted Titmouse	201	224	477	309	80	294	139	222	206	348	435	554	275	127	412	160	432	4895
Red-breasted Nuthatch	45	6	33	26	14	7	4	13	8	5	17	20	24	5	24	3	25	279
White-br. Nuthatch	111	87	183	203	73	154	62	170	40	113	238	194	97	64	164	55	136	2144
Brown Creeper	22	1	13	17	3	4	11	12	5	11	14	19	3	---	11	1	13	160
Carolina Wren	5	14	47	12	5	33	26	12	14	104	57	145	103	121	159	82	78	1017
House Wren				1						1		2	2					6
Winter Wren	1		7	9		3	3	2		4	8	13	5	8	6	9	3	81

Broker

SPECIES	BA	EW	HA	LH	LS	ST	OX	PA	QV	SR	WR	GS	NH	NL	OL	SM	WE	TOTAL
Marsh Wren				1									12	1	6			20
Golden-crd. Kinglet	80	41	54	70	**20**	77	39	39	62	109	154	71	118	60	87	36	88	1205
Ruby-crd. Kinglet			1	3			3	2	6	4	**2**	12	4	9	4	2	10	62
Eastern Bluebird	32	72	30	196	88	176	118	153	51	150	362	87	45	2	98	4	125	1789
Hermit Thrush	1		6	4	1	1	7	2	4	13	24	16	16	16	34	14	9	168
American Robin	15	188	381	292	597	85	1645	98	1493	271	2455	353	1057	409	240	242	120	9941
Gray Catbird			6	2			9	3	2	6	6	28	14	17	11	28	7	139
Northern Mockingbird	28	42	258	51	34	102	78	54	113	70	141	153	157	141	132	199	94	1847
Brown Thrasher													1	2	1	1		5
American Pipit			1									1	69	1	1			73
Cedar Waxwing	66	68	123	321	193	122	240	387	33	707	431	544	160	486	65	61	357	4364
Northern Shrike		1																1
European Starling	1002	2336	54850	2943	987	2946	6676	948	21068	**1146**	7375	12443	18450	3982	1593	3311	9087	151143
Orange-crd. Warbler												1			1	1		3
Yellow-rpd. Warbler		2	41		2		12		**3**	15	11	26	7	87	116	14	15	351
Pine Warbler															1			1
Palm Warbler				1									CW				1	2
Com. Yellowthroat													1	1		---		2
Northern Cardinal	116	75	523	204	49	171	123	123	96	113	323	269	263	**83**	219	219	184	3153
Rufous-sided Towhee			4				5	3	1	4	7	12	12	14	15	7	3	87
Amer. Tree Sparrow	68	**45**	449	**220**	103	**72**	122	91	45	92	268	**33**	218	64	198	501	94	2683
Chipping Sparrow			2			CW					---		1		2			5
Field Sparrow	2	5	29	6		30	39	3	20	36	27	15	**48**	112	93	70	25	560
Vesper Sparrow												1	1		3			5

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	BA	EW	HA	LH	LS	ST	OX	PA	QV	SR	WR	GS	NH	NL	OL	SM	WE	TOTAL
Savannah Sparrow			6						11		2	1	13	4	11	99	5	152
Ipswich Sparrow																8		8
Sharp-tld. Sparrow												1	1	1	2			5
Fox Sparrow			3			1	8	4	8		7	13	2	8	9	6	5	74
Song Sparrow	35	52	347	107	18	59	137	52	195	92	276	337	461	260	499	734	357	4018
Lincoln's Sparrow											1							1
Swamp Sparrow	—	2	7	15		2	29	—	17	5	12	26	35	11	51	47	19	278
White-thr. Sparrow	107	178	600	289	68	209	503	486	560	478	857	1145	1191	430	371	1038	412	8922
White-cr. Sparrow				1	4				2	1			4	1		1		14
Dark-eyed Junco	531	434	1461	938	181	682	605	494	377	534	1386	753	448	247	693	93	672	10529
Snow Bunting				1							12			11	12	76	40	152
Red-wgd. Blackbird			552	1		1	13	12	18	10	264	4	951	82	220	199	33	2360
Eastern Meadowlark					14	3			95		30		3	33		1		179
Rusty Blackbird			2					3					1	5	6	1		18
Common Grackle		1	136				2	5		1	10	5	704	300	58	115	2	1339
Brown-hdd. Cowbird		57	500	2	1	33	149	10	204		538	21	333	238	37	110	69	2302
Northern Oriole											1							1
Purple Finch	76	29	11	26	20	18	25	61	24	2	52	4	3	7	5	2	19	384
House Finch	856	800	1984	1874	708	1093	569	942	752	639	1858	1197	1371	903	1001	1026	760	18333
Pine Siskin			CW	---	4	2								---			---	6
American Goldfinch	308	185	609	305	68	266	195	241	77	290	785	399	683	221	262	170	203	5267
Evening Grosbeak			15															15
House Sparrow	427	404	1584	592	167	466	233	97	198	195	387	763	845	568	525	810	678	8939

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SUMMARY - CONNECTICUT CHRISTMAS BIRD COUNTS 1992-1993

	NORTHERN						SUB
	BA	EW	HA	LH	LS	ST	TOTAL
TOTAL INDIVIDUALS	7058	8372	91086	14540	8641	12506	142203
TOTAL CD SPECIES	58	57	85	72	64	64	108
TOTAL CW SPECIES	0	0	3	2	0	2	3
FIELD OBSERVERS	35	13	142	40	20	24	274
FEEDER WATCHERS	6	0	44	0	7	0	57
TOTAL ALL OBSERVERS	41	13	186	40	27	24	331

	MID-STATE					SUB
	OX	PA	QV	SR	WR	TOTAL
TOTAL INDIVIDUALS	22504	13369	32673	10527	39624	118697
TOTAL CD SPECIES	72	73	78	71	85	103
TOTAL CW SPECIES	0	0	0	0	0	0
FIELD OBSERVERS	23	30	18	33	43	147
FEEDER WATCHERS	0	16	3	1	0	20
TOTAL ALL OBSERVERS	23	46	21	34	43	167

	COASTAL						SUB
	GS	NH	NL	OL	SM	WE	TOTAL
TOTAL INDIVIDUALS	38180	64450	22028	20079	32036	41574	218347
TOTAL CD SPECIES	112	123	114	123	118	105	152
TOTAL CW SPECIES	4	7	2	0	1	3	3
FIELD OBSERVERS	75	81	41	61	29	80	367
FEEDER WATCHERS	0	6	8	5	2	22	43
TOTAL ALL OBSERVERS	75	87	49	66	31	102	410

	ALL COUNTS	GRAND TOTAL
TOTAL INDIVIDUALS		479247
TOTAL CD SPECIES		163
TOTAL CW SPECIES		6
FIELD OBSERVERS		788
FEEDER WATCHERS		120
TOTAL ALL OBSERVERS		908

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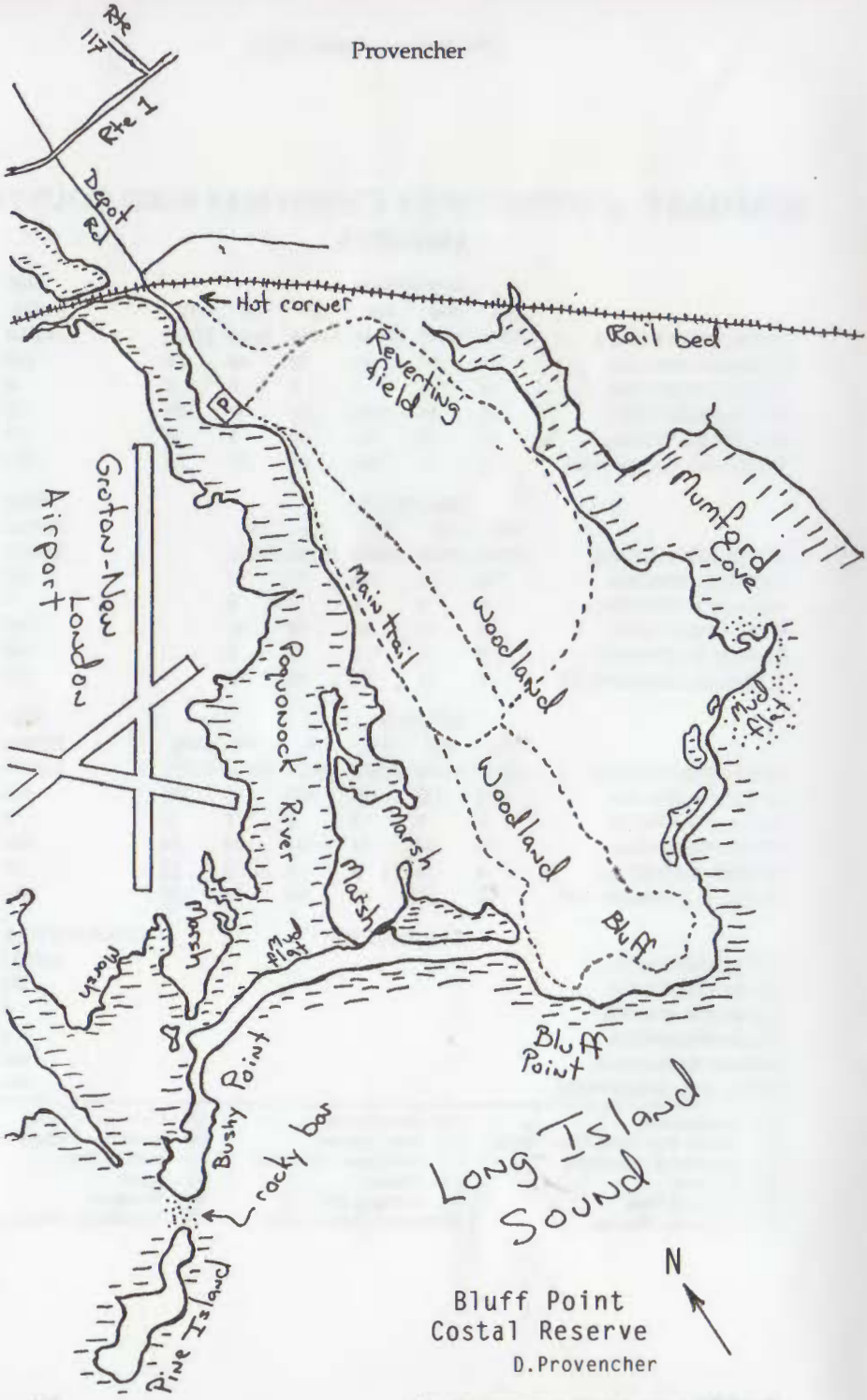
Rte 117
Rte 1
Depot Rd
Hot corner
Rail bed
Reverting field
P
Groton-New London Airport
Pequonock River
Main trail
Woodland
Mumford Cove
Mud flat
Marsh
Woodland
Bluff
Bluff Point
Long Island Sound
Bushy Point
rocky bar
Pine Island
N
Bluff Point
Costal Reserve
D. Provencher

SITE GUIDE: BLUFF POINT COASTAL RESERVE, GROTON

David F. Provencher

Bluff Point Coastal Reserve, henceforth BPCR, in the town of Groton, Connecticut, is one of the premier birding locations in southeastern Connecticut. Well over 200 species have been recorded on the reserve including numerous species of special interest to Connecticut birders. As a migrant trap, it ranks as one of the best in southern New England and the passage of a fall cold front can produce an impressive array of south bound migrants. The reserve is primarily a peninsula bordered on the west by the Poquonock River, to the east by Mumford Cove, and to the south by Long Island Sound. A ridge runs north-south through the peninsula, terminating in a rocky bluff which offers a panoramic view of the surrounding coastline, as well as Long Island Sound and Fisher's Island, New York.

The varied habitats include deciduous woodland, reverting fields, thickets, salt marsh, river, barrier beach, mudflats, and rocky shoreline. There are several old foundations, now mostly obscured by vegetation, that speak of a time when the point was not protected habitat. The point has a number of trails and is very popular with runners, mountain-bikers, and horse-back riders. A main trail, about two to three miles in length, circles the peninsula, although it can seem much longer. Numerous side trails branch off the main trail, and there are several interesting areas without trails. The best birding tends to be in very specific locations and at specific times.

Timing is very important and a little effort to arrive here at the right time will be amply rewarded. A word of caution: walking all the trails and the beach will take the better part of a day and can be tiring. Unless you want a good work-out, stick to the most productive areas noted in the following discussion. If you do enjoy lengthy walks however, BPCR is a perfect place for it.

Bluff Point and the Migration Phenomenon.

Each spring and fall the night sky sees the passage of many birds heading to or from their breeding grounds. Although these birds may end up at a very definite terminus to their journey, the journey itself may take a somewhat variable course each year depending on the vagaries of the weather. These nocturnal travelers are often pushed to the coastline or beyond by the southwest winds of spring or the

northwest winds of fall. These exhausted individuals then make for the first familiar habitat they find. Dawn at Bluff Point finds such individuals dropping out of the sky into the reserve. Most of these birds then move northward through the reserve. They then jump across the developed area to the forested area to the north as they move inland to find food to replenish their depleted store of energy. Many of these birds funnel into the northwestern corner of the reserve as they move northward. This corner, at the juncture of the entrance road and the railroad trestle, is THE place to start birding during migration. Pull over and park just after passing under the railroad bridge and walk up the path to the running club's bench. Standing at this "Hot Corner" after the passage of a fall cold front one can observe hundreds of migrants flowing past. Starting at dawn after a night of good migration, the trees and shrubs will be alive with warblers, orioles, tanagers, sparrows, thrushes, etc. The sky above you will have many other species moving back and forth. You will not be able to identify everything that goes by simply because there are too many birds. If you know the call notes of the different species you will be at an advantage during the flurries of birds that shoot past. If you don't, this is a superb place to learn them.

Weather affects the migration through Connecticut, more so in the fall than in the spring. The northward movement of birds is triggered by physiological changes brought about by the lengthening hours of daylight. The drive to breed spurs birds to move north even during contrary weather conditions. The spring migration therefore tends to be a steady flow of individuals with a peak usually early in the second week of May. Without the reproductive urge, the fall migration sees many southbound birds, particularly young of the year, waiting for a strong tailwind to assist them on their arduous journey. Therefore, the fall tends to concentrate migration into peak days and hence the "Hot Corner" is best in fall, particularly September. September of 1992 saw a conservative estimate of 2,500 warblers pass through the Hot Corner during eight mornings of good conditions. Spring or fall, a good day will enable you to appreciate this Connecticut hotspot.

Directions:

Take exit 88 off route I-95 and turn south on route 117. After 1.0 mile route 117 ends at a light on route US 1. Turn right (west) on route 1 and continue to the first light, with the Groton Town Hall on your left. Turn left (south) here onto Depot Road and continue about 0.3 miles to a railroad Trestle. The road sweeps to the left and a gravel road bears right under the trestle. This bumpy gravel road is the entrance to the reserve. Bear right, go under the trestle and park immediately

to bird the hot corner, or continue to the main parking area to bird the rest of the reserve. DO NOT look for a sign at the entrance; you will not find one! The main trail starts at the metal gate at the main parking area.

Specialties:

The list of specialties that have occurred here is a long one and it's still growing. It includes Red-necked Grebe, Northern Gannet, American Bittern, over 30 species of waterfowl often in impressive numbers in winter, Bald Eagle, Peregrine Falcon, and Northern Bobwhite. Many species of shorebird have occurred including Lesser Golden-Plover (annual), American Oystercatcher, Hudsonian Godwit, Baird's Sandpiper, Purple Sandpiper, and Buff-breasted Sandpiper. Gulls are a constant feature and they have included white-winged gulls, Common Black-headed Gull, and Black-legged Kittiwake, as well as Roseate Tern, Forster's Tern, and Black Skimmer. Alcids have also been reported on the Sound. Swainson's Thrush, Hermit Thrush, and Gray-cheeked Thrush all occur annually, but are most numerous in the fall. Philadelphia Vireo occurs annually as well as all the other eastern vireos. The long list of warblers includes Golden-winged, Orange-crowned, Mourning, and Yellow-breasted Chat. Sparrows include such specialties as Vesper, Fox, Lincoln's, White-crowned, Sharp-tailed and Seaside.

Nesting Species:

Although Bluff Point is best during migration, some interesting species nest on the preserve. These include Osprey, Northern Bobwhite, Clapper Rail (scarce), Willow Flycatcher, Scarlet Tanager, Rose-breasted Grosbeak, six species of warbler, Field Sparrow, and Northern Oriole. American Oystercatchers are possible breeders and Black-crowned Night-Heron has nested. At the nearby Haley Farm State Park, Northern Bobwhite and Orchard Orioles are conspicuous nesters.

Spring:

The Hot Corner is good to very good for the first two or three hours of daylight during the last week of April through the first week of June. In the morning flycatchers tend to stay and work this area, offering the birder an opportunity to study them. Watch for skulking thrushes in the understory. Warblers of interest seen here each spring, usually include Nashville, Magnolia, Blackburnian, Palm, Bay-breasted, Blackpoll, and Canada. Mourning, Hooded, and Wilson's occur less regularly. Brown Thrashers, Indigo Buntings, and Field

Sparrows are found in the reverting fields. Keep an ear and an eye cocked on the sky while you are here. Many birds that have just arrived fly back and forth over this area. Bobolink are often heard at both seasons from this point. Whether you stand and watch or choose to walk the trails that leads through the secondary growth you are bound to find something of interest. The maturing deciduous forest of the reserve usually rings with the songs of Wood Thrush and Veery at this time. They often are numerous as BPCR breeders are joined by migrants. Listen for the cu-cu-cu-cu of the Black-billed Cuckoo or the cawp-cawp-cawp of the Yellow-billed, as both occur regularly, but are heard more often then seen. Solitary and Yellow-throated Vireos are often heard singing along with Scarlet Tanagers and numerous Northern Orioles. Rose-breasted Grosbeaks perch high in the trees and serenade you with perhaps the most beautiful song of the eastern forest. When you have exhausted this area, walk along the main trail on the western side of the reserve to the barrier beach.

Walk along the beach at mid-tide or lower; high tide is usually unproductive. Shorebirds can be seen on the mudflat on the northern side of the beach or on the rocky bar that uncovers, between Bushy Point and Pine Island. Along with the "regulars" you should see oystercatchers, and you may see Piping Plover, Lesser Golden-Plover or Red Knots in their brilliant breeding garb. Be alert for passing falcons; the shorebirds will let you know if you miss one.

Common and Red-throated Loons are common at this season, as well as Horned Grebes, molting into their colorful summer plumages. As spring continues, Common and Least Terns become daily fixtures. Forster's and Black Terns are possible migrants as well as a "big" tern. Watch for American Pipit on the sand or the rocks; they utilize the reserve each spring and fall.

The salt marsh is a prime habitat for Marsh Wren and "marsh sparrows" as well as herons and egrets. There is occasionally a Lesser-golden Plover standing in the grasses and many shorebirds roost here at high tide.

Check all "edges" for migrant warblers; Wilson's is not an uncommon spring find. Yellow Warbler, Blue-winged Warbler, and Common Yellowthroat can seem to be everywhere at this time.

Summer:

The heat of summer means fewer birds and more people. The nesting species can be heard in the early morning and may include Great Crested Flycatcher, Willow Flycatcher, Veery, Wood Thrush, several warbler species, and notably Northern Bobwhite. Bobwhites can be difficult to find in Connecticut away from the southeast coast, and Bluff Point and Haley Farm are two of the better places to see or hear them. Osprey are constant fixtures and the first southbound shorebirds begin to arrive in early July.

Orchard Orioles may be found by traveling back out Depot Road

and turning right on Route 1. Continue on Route 1 for a little over one mile to the intersection with Route 215. Turn right (south) on Route 215 and take the first right onto Brook Street. Continue on Brook for a short distance and turn right on Haley Farm Road, a dead end. Park at the dirt parking area and get out of your car. You are now in the middle of a nesting pair's territory. It should only take a few minutes to hear or see them.

Fall:

The birding at Bluff Point is so excellent during fall migration that I find myself trying to get there every day. Shorebird migration is in full swing, and who knows what will be on the beach. This is a staging area for American Oystercatchers and 42 were present September 6 1992. On August 31 of that year, a Lesser Golden Plover, Hudsonian Godwit, and Buff-breasted Sandpiper were present at the same time. Groton-New London Airport, just to the west of the reserve, is worth checking for the "grasspipers" such as Upland Sandpiper. Take Route 1 west from the reserve and follow the signs. There is only one point from which to observe the airport, but it is worth checking. BPCR hosts Lesser Golden-Plovers each fall. Undoubtedly the habitat of the airport plays a role in the numbers that appear. The end of Bushy Point had 15 Goldens on September 29, 1991.

At this season, the Common and Least Terns of summer are joined by Roseate and Forster's Terns. Other terns to watch for include Black, Caspian, and Royal, which seem to be increasing in frequency in the northeast in fall. Black Skimmer has occurred.

The Hot Corner is really hot at this season. With the passage of a cold front and the following northwest winds, hundreds of migrants pass through here during the first two to three hours of light. Arriving at dawn, you will see and hear birds leaving the reserve as soon as you get out of the car. On some days the birds fly high and you will be able to identify only a small portion of them. On other days they travel low through the foliage providing excellent views. I have yet to unravel the reasons for this differing behavior, but I don't believe it is weather-related. Birds to expect are Olive-sided Flycatcher, all the Empidonax flycatchers (usually silent unfortunately), both kinglets in abundance, Winter Wren, all the thrushes including Gray-cheeked, Brown Thrasher, all the eastern vireos and most of the warblers. Philadelphia Vireo is annual in the fall and in 1992 six were recorded at BPCR. On September 20, one lucky group of observers saw three at one time on the same branch! Estimates of the number of warblers can exceed 500 individuals on a good day, and there are usually at least four or five good days during September.

Yellow-breasted Chat is annual and should be looked for in any suitable habitat. It has been seen mostly at the hot corner, but also along the brushy areas of the main trail. Orange-crowned Warbler occurs regularly, usually from late September into October, but you

will have to sort through hundreds of Yellow-rumped and Blackpoll Warblers to find one. Tanagers put in a good showing and there are usually many Northern Orioles.

Sparrows show up in numbers during October. Species to expect are Chipping, Field, Fox, Song, Lincoln's, White-throated, Swamp, and White-crowned. Vesper has occurred and Clay-colored is a good possibility. Savannah Sparrows are found in appropriate habitat and the Ipswich race has been found here.

Raptors are a conspicuous part of the avifauna at BPCR in the fall. Sharp-shinned Hawks and American Kestrels are the most prevalent, but watch for anything. Check the trees at the waters edge for Bald Eagle, usually immatures. Rough-legged Hawks can be seen in some years and Northern Harriers are present most years. The woodland habitat usually has Yellow-bellied Sapsucker, flycatchers, and roving groups of vireos and warblers.

Winter:

In recent years Northern Gannets have been utilizing Long Island Sound more than usual. Why this is so has not been ascertained as yet, but it may be the birds must cover larger areas to find their prey. Although this is not good news it does make it easier to see gannets in Connecticut. During late fall and early winter they can now be seen from several southeastern Connecticut locations with regularity. BPCR is one of those locations, best when the wind is out of the east.

Some of the birds to look for on the reserve in winter are Common Loon, Red-throated Loon, Red-necked Grebe, Horned Grebe, Great Cormorant, wintering shorebirds including Red Knot, Ruddy Turnstone, Dunlin, and Purple Sandpipers, white-winged gulls, Black-legged Kittiwake (rare), alcids (very rare, and be sure to send sighting to the Connecticut Rare Records Committee), Northern Harrier, Short-eared Owl, Snowy Owl, Northern Saw-whet Owl, Yellow-rumped Warbler, and Snow Bunting. The airport often has Horned Larks, Snow Buntings and quite often a Lapland Longspur or two. A Snowy Owl spent the winter of 1992-93 here. Occasionally a Rough-legged Hawk will over-winter.

Many species of waterfowl can be found at BPCR in winter. The colder the winter, the better the reserve is. Species seen regularly include Brant, Canvasback, Redhead, both scaup, Oldsquaw, all three scoters, Common Goldeneye, Hooded Mergansers (over 100 at one time have been observed), and numerous Bufflehead and Red-breasted Mergansers. Common Eider has increased in frequency in Long Island Sound of late. It has been regular recently at nearby Harkness State Park during November and December and should be looked for at BPCR.

43 Branch Hill Rd. Preston, Ct. 06365

THE CONNECTICUT BLUEBIRD RESTORATION PROJECT - SUCCESSFULLY MANAGING FOR THE EASTERN BLUEBIRD AND OTHER NATIVE CAVITY-NESTING BIRDS

David Rosgen[1] and James M. Zingo[2,3]

Bluebirds are small, open-country members of the thrush subfamily (Turdinae). They prefer farms, meadows, orchards, and other areas with scattered trees and short or sparse ground cover, and they require natural or man-made cavities for nesting. They perch in the open, scanning the ground for their usual prey of insects, spiders and similar small animals. In fall and winter, their diet changes to one of wild fruits and berries (Baird et al. 1874; Bent 1949; Forbush 1913, 1929; Minot 1895; Pough 1949; Terres 1980; Zeleny 1976). Sumac (*Rhus* spp.) and eastern red-cedar (*Juniperus virginiana*) fruits are important foods during late winter and early spring in Connecticut.

There are three species of bluebirds: Eastern (*Sialia sialis*), Mountain (*S. currocoides*), and Western (*S. mexicana*). The Eastern Bluebird is the only one that breeds in eastern North America; Mountain and Western Bluebirds are found west of the prairie states (American Ornithologists' Union 1983; Terres 1980). The male Eastern Bluebird in breeding plumage is bright blue above with a reddish-brown breast and white belly. The coloration of the female is similar (Figure 1), although paler than that of the male. Juveniles are grayish, with brown and white spots on the back and breast, and only the wings and

Photo by James M. Zingo

Figure 1. Female Eastern Bluebird, University of Connecticut (Storrs) 26 May 1993

tail show any blue (Baird et al. 1874; Bent 1949; Forbush 1913, 1929; Minot 1895; Pough 1949; Terres 1980; Zeleny 1976).

Native only to North America, the bluebird's range extends to nearly every part of the continent (American Ornithologists' Union 1983; Terres 1980). In Connecticut, Linsley (1843) referred to the Eastern Bluebird as "common." Merriam (1877) commented that they were an "abundant" nester, and a common species throughout the state. Sage, Bishop, and Bliss (1913) noted that bluebirds were an abundant summer and common winter resident in Connecticut. However since the early 1900's, and especially since about 1947 with the advent of the DDT era, bluebird populations have declined severely (Bent 1949; Gros and Rosgen 1991; Stokes and Stokes 1991; Zeleny 1976). Several factors have contributed to this: loss of habitat (including nest cavities), competition with non-native species, unnaturally high predation, pesticides, adverse winter weather, and a decline in winter food supply (Bent 1949; Forbush 1913, 1929; Zeleny 1976). The erection of nestboxes in suitable habitat, control of alien competitors, and planting of winter food trees and shrubs have helped to conserve and increase these species (D. Rosgen, pers. obs.; Bent 1949; Forbush 1913; Gros and Rosgen 1991; Pough 1949; Zeleny 1976).

The Connecticut Bluebird Restoration Project (CBRP) is a division of the Connecticut Wildlife Atlas (CWA), a non-profit environmental organization dedicated to wildlife conservation by providing research, inventorying, and management services. The CBRP, established in 1984, is involved principally with modern management of Eastern Bluebirds and other native cavity-nesting birds to achieve maximum nesting success and productivity. This includes the following: maintaining a statewide network of bluebird nestboxes (currently approximately 2200 and growing, on both public and private land); monitoring these boxes regularly (preferably every two weeks) during the breeding season; collecting data on species usage, successes, failures, and productivity (number of young fledged); and analyzing these data to determine population and distribution trends and to improve management techniques.

Management of the Network

Careful analysis of data has allowed us to streamline procedures to one standardized system which is, overall, 80% to 90% successful in fledging young birds. Based on past results, we feel that the only acceptable placement (for the best possible chance of success) of a bluebird box is on a sturdy, seven to eight-foot long pole, set two to three feet into the ground for stability, and protected from raccoon

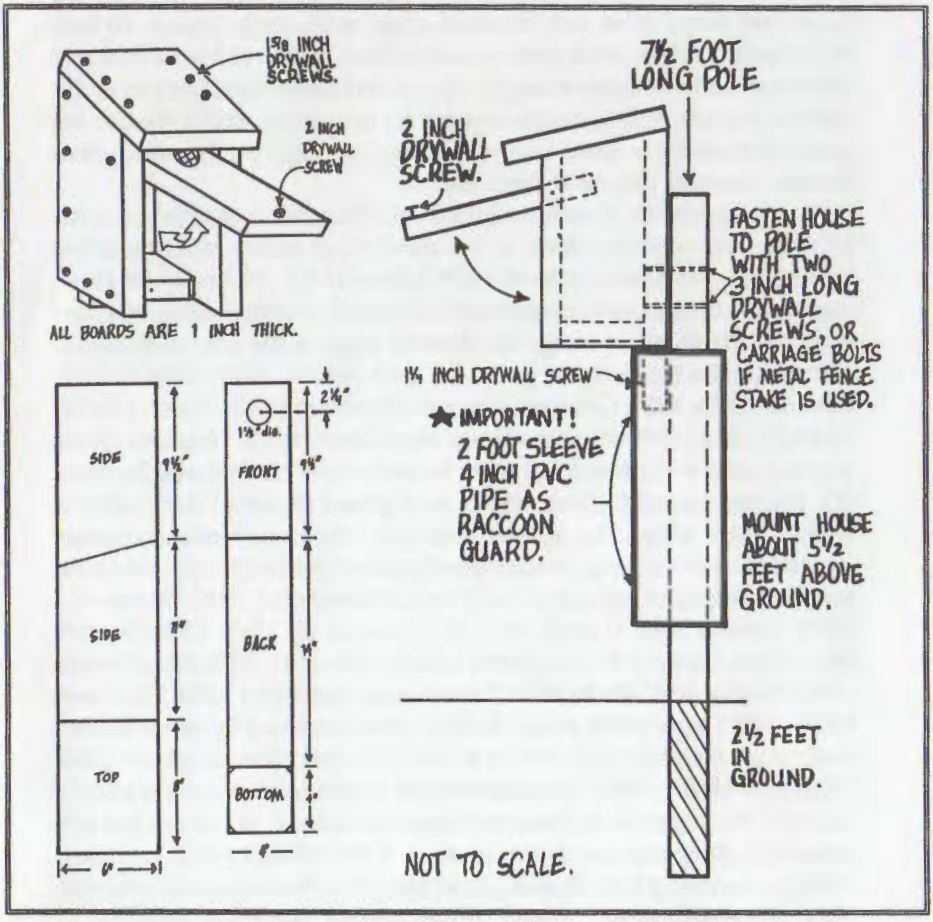

Figure 2. Standardized nestbox and mounting protocol used by Connecticut Bluebird Restoration Project

predation by a two-foot-long sleeve of slippery PVC plastic pipe (preferably four or more inches in diameter) attached loosely immediately below the box (Figure 2).

When predation by weasels, mice, snakes, or ants is likely or does occur, then a petroleum-based grease should be applied to the pole under the PVC pipe because these animals will climb the pole under the pipe. This grease tends to remain effective for at least one full season when applied in the spring, whereas a food-based grease tends not only to wash off easily but also to attract undesired animals such as raccoons. Capping the PVC pipe with aluminum flashing has also proven effective in stopping weasels and mice from reaching the nest.

Additional predator protection is obtained by placing poles 15 or more feet away from any wooded edge, wall, rock, stump, or tree which might allow predators access to a nest. We have found that any other method of bluebird box placement in Connecticut has generally turned the box into a death-trap for its occupants and a feeder for predators, while in some cases encouraging usage by the non-native House Sparrow (*Passer domesticus*).

House Sparrows, first introduced into the wild in North America in 1851, pose a major threat to the survival of native cavity-nesting birds (Barrows 1889; Forbush 1929; Minot 1895). Not only do these aggressive exotics out-compete native birds for nesting sites, but they also kill adults and young and destroy eggs at the nest sites of the native species (D. Rosgen, pers. obs. and unpubl. data; Abbott 1895; Forbush 1913, 1929; Gros and Rosgen 1991; Minot 1895; Zeleny 1976). In addition, in 1990-92 a significant number of House Sparrows from various sites in Connecticut were found to carry *Salmonella* bacteria (D. Rosgen, unpubl. data), which may pose a threat to the health of native birds when the species interact. Salmonellosis, a disease caused by this bacteria, can adversely affect the health of, and cause mortality in, many species of wild birds (Brand et al. 1988; Davis et al. 1971; Eleazer and Harrell 1973; Faddoul et al. 1966; Fichtel 1978; Kocan and Locke 1974; Leighton 1988; Locke et al. 1973; Macdonald 1978; Nesbitt and White 1974; Pourciau and Springer 1978; Thiel and Mello 1989), especially young birds or birds stressed by other factors such as poor nutrition (Davis et al. 1971; Fichtel 1978; Leighton 1988; Thiel and Mello 1989). Transmission of the bacteria occurs typically through the ingestion of feces-contaminated food, as may occur at a winter feeding station (Faddoul et al. 1966; Fichtel 1978; Leighton 1988; Locke et al. 1973; Nesbitt and White 1974; Pourciau and Springer 1978; Thiel and Mello 1989). When House Sparrows defecate in bluebird nestboxes, bluebird adults or young may accidentally ingest fecal matter and with it the bacteria. To combat the multi-faceted threat imposed by the sparrows, CBRP volunteers eliminate these birds and their nests during the regular visits to the boxes. Placing nestboxes at least 200 feet away from farmyards, buildings, and bird feeders also helps to reduce competition from House Sparrows (D. Rosgen pers. obs. and unpubl. data; Bent 1949; Zeleny 1976)..

The European Starling (*Sturnus vulgaris*), introduced into North America in 1890 (Chapman 1937), also competes for cavity nest sites (Bent 1949; Forbush 1929; Pough 1949; Zeleny 1976). However, competition with starlings for nestboxes has not been a problem because the entrance hole (diameter = 1.5 inches) is too small for the larger starling. The 1.5 inch size of the entrance hole had been

recommended at least as early as 1929 (Forbush) for the express purpose of excluding starlings.

In damp years, parasitic blowflies (*Protocalliphora sialia*) can be troublesome and may cause isolated deaths of young in the nest. Although they tend to be localized and not significant overall, they should not be overlooked as a potential problem. Weather-tight, well-drained nestboxes (kept dry on the inside) reduce their occurrence, and regular monitoring allows for the removal of blowfly maggots to alleviate and/or eliminate this problem. Since wet conditions are also conducive to the survival of *Salmonella* spp. (Connecticut State Department of Health, pers. comm.), it is especially important to keep the inside of the box clean and dry.

Ectoparisites - Methology of Monitoring.

Bird lice (order Mallophaga), mites (such as the tiny red *Dermanyssus hirundinus*), and ticks are all listed as ectoparasites for birds (Kress 1985; Wallace and Mahan 1975). Small populations of mites and lice do not present a problem for healthy young birds, but high populations can weaken nestlings and affect their chances of survival (D. Rosgen pers. obs.; Kress 1985). Thus far, they have not been a significant problem for the cavity-nesters using our bluebird boxes. We have never found ticks in the nests or on the nestlings of these birds. Mites (unidentified species) have only been found on one House Wren brood, in one used House Wren nest, and in two used Tree Swallow nests. Lice have been found on roughly 2% of all Tree Swallow broods. We consider only one nest failure (Tree Swallows) to have possibly been caused by lice. Bluebirds, thus far, have been free of these ectoparasites.

Nestboxes should be monitored either every week or every two weeks. Boxes should not be opened more than once a week, as that can cause the birds to abandon the nest. These inspections allow us to collect data at least once for both the egg and nestling stages, and allows for the removal of blowfly maggots, if present, during the nestling stage. Weekly inspections can be even more effective for controlling blowfly infestations. Checking the boxes less often than bi-weekly yields less data and does not allow for intervention when problems occur.

For a few minutes before approaching, we observe each box from a distance to see if any birds come and go. At the box, we look for evidence of predation, disturbance, or usage, and check for wasps before opening the front. Wasp combs are generally visible through the vent above the front door, and may be removed by inserting a wide paint scraper or spackling knife through the rear vent and

allowing the wasps to disperse. If no wasps are present, we open the door using a phillips screwdriver or a cordless drill with a phillips-head bit, and check the box contents. We record the following information, depending on the stage of nesting: date of nest check, box number (each box is numbered according to the year it was erected), species of occupants, stage of nest construction, numbers of eggs or young, approximate age of young, and outcome (success or failure, including number fledged and/or number dead and why). Since nest checks keep birds away from their nests (Figure 3), they should be completed as quickly as possible so the birds may return to their eggs or chicks (Figure 4).

Figure 3. Male Eastern Bluebird at Univ. of Connecticut (Storrs) 26 May 1993 Photo by James M. Zingo

Habitat management is an important part of regular monitoring. Vegetation control, such as cutting grasses and other plants in a swath at least 10 feet in radius around the pole, is the primary form of management. This is accomplished with relative ease if done every two weeks. Tall, dense vegetation around the nestbox makes it more hospitable for House Wrens and less so for bluebirds and Tree Swallows.

1992 Results.

In 1992, the 1200 regularly monitored boxes hosted approximately 275 pairs of bluebirds, 400 pairs of Tree Swallows (*Tachycineta bicolor*), 325 pairs of House Wrens (*Troglodytes aedon*), 25 pairs of Black-capped Chickadees (*Parus atricapillus*), three pairs of Tufted Titmice (*Parus bicolor*) and two pairs of White-breasted Nuthatches (*Sitta carolinensis*). Eastern Bluebirds and Tree Swallows (Figure 5) are responding very well to our efforts. The bluebirds made approximately 325 nesting attempts, 300 (92%) of which successfully fledged 1320 young (Figure 6) (4.4 young per nesting attempt). The swallows made approximately 420 nesting attempts, 380 (90%) of which successfully fledged 1700 young (4.5 young per nesting attempt). House Sparrows were

Figure 4. Male Eastern Bluebird at Univ. of Connecticut (Storrs) 26 May 1993 Photo by James M. Zingo

problems in roughly 75 boxes (6.3%), but most were eliminated before they could nest successfully. Wasps were also a problem in roughly 100 boxes (8.3%), but frequent removal of their nests eventually eliminated them and allowed access for birds. House Sparrows and cold weather accounted for most of the nesting failures.

A Sample of Our Success.

Tables 1-6 show a sample of our success for 1992. Metropolitan District Commission properties contained the largest number of CBRP bluebird boxes, with a total of 97 in service in seven towns (Table 1). The next largest group is located at the White Memorial Foundation, with 43 boxes in service (Table 2)

South-Central Regional Water Authority properties in four towns contained 40 bluebird boxes (Table 3), and the University of Connecticut (Storrs campus) contained 19 boxes (Table 4).

The Country Club of Farmington had 16 boxes (Table 5) and the Hopmeadow Country Club had 14 (Table 6).

Collectively, the 229 nestboxes at these six components of the statewide network supported 52 pairs of bluebirds which produced 300 young, or 3.5 young per nesting attempt. Three other species of cavity-nesters (139 pairs) used these boxes and fledged 629 young, or 4.3 young per nesting attempt. These areas are representative of our standardized approach and, with a 90% success rate, are models for the management of bluebirds and other cavity-nesting birds.

Evaluation and Improvement.

Over the past nine years, the CBRP has strived to analyze its

techniques, materials use, and the causes of nest failures to make subsequent improvements, some of which involve experimentation with new techniques. Because this network involves building and maintaining a large number of nestboxes, a fair amount of woodwork is required, not only by the director and volunteers but also by project participants, all of varying ages and carpentry skills. Assessment of our methods includes evaluating nestbox design for ease of assembly and repair, evaluating wood for longevity in the field, and evaluating the cost-effectiveness of materials. Several other nestbox designs have been used with varying degrees of success by various individuals all over the country, but the one advocated by the CBRP (Figure 2) seems to be most practical for the effort required, both in ease of assembly and in ease of repair, when such is necessary.

The CBRP has found that hard woods, such as oak (*Quercus* spp.), are impractical for use because they are difficult to work with, requiring a greater time commitment and skill level than do softer woods, such as eastern white pine (*Pinus strobus*). We have found that, to date, white pine, white spruce (*Picea glauca*) and eastern red cedar seem to be the most practical choice of wood for each of their combinations of woodworking, longevity, and cost advantages. Hemlock (*Tsuga* spp.), western yellow pine (*Pinus ponderosa*), and red pine (*P. resinosa*), although inexpensive and relatively soft and easy woods with which to work, tend to deteriorate in the field much

Figure 5. Tree Swallow at Univ of Connecticut (Storrs) 26 May 1993
Photo by James M. Zingo

more rapidly than the three previously mentioned types. We have avoided, and do not recommend, pressure-treated lumber, because the chemicals used to treat the wood are generally toxic and potentially hazardous to the birds. Plywood is also unsafe to use; exterior-grade plywood is chemically treated, while interior-grade plywood, although untreated, seems to retain too much moisture in damp weather, contributing to the chilling of eggs or young.

Boxes are assembled using 1-5/8" drywall or multi-purpose screws, which are easy to drive using a cordless drill or screwdriver and can even be driven using a hand screwdriver. They provide greater holding power than do nails and make dis-assembly of boxes for repairs much easier. Since many paints and stains are harmful to young birds, the interiors of boxes should be kept free of these materials when they are used to treat the exteriors. In general, light, inconspicuous colors should be used, as dark colors may absorb too much of the sun's warmth and cause overheating, and colors which stand out may attract predators which follow visual cues. Caulk (containing silicon) and Thompson's water seal are safe products to use and are recommended to help prolong the life of the nestbox.

Considering typical threats to native cavity nesters, we can examine the causes of nest failure, thereby determining how to reduce and, if possible, prevent such failures from occurring. Only 24 (10%) out of 234 nesting attempts failed (Tables 1-6). These were attributed to the

Figure 6. Eastern Bluebird Nestlings, Monroe, CT. 17 May 1992
Photo by James M. Zingo

Table 1. Summary of 1992 usage of 97 bluebird boxes at Metropolitan District Commission properties in Barkhamsted, Bloomfield, Burlington, Farmington, Hartland, New Hartford, and West Hartford, CT.

Species*	No. Pairs	No. Nesting Attempts	No. (%) Successful	No. Failed	No. Young Fledged	No. Fledged/ Nest Attempt
Eastern Bluebird	21	34	32 (94%)	2	128	3.8
Tree Swallow	56	57	55 (96%)	2	236	4.1
House Wren	7	8	7 (88%)	1	44	5.5
Blk-cp Chickadee	1	1	0 (0%)	1	0	0
Totals	85	100	94 (94%)	6	408	4.1

* 18 House Sparrow nesting attempts (4 in Barkhamsted, 4 in West Hartford, and 10 in Bloomfield) were removed.

Table 2. Summary of 1992 usage of 43 bluebird boxes at the White Memorial Foundation in Litchfield and Morris, CT.

Species *	No. Pairs	No. Nesting Attempts	No. (%) Successful	No. Failed	No. Young Fledged	No. Fledged/ Nest Attempt
Eastern Bluebird	6	8	8 (100%)	0	26	3.3
Tree Swallow	15	16	12 (75%)	4	54	3.4
House Wren	6	8	6 (75%)	2	28	3.5
Blk-cp Chickadee	0	0	---	---	---	---
Totals	27	32	26 (81%)	6	108	3.4

* 8 House Sparrow nesting attempts were removed.

Table 3. Summary of 1992 usage of 40 bluebird boxes at South-Central Connecticut Regional Water Authority properties in Bethany, Orange, Prospect, and Woodbridge, CT.

Species *	No. Pairs	No. Nesting Attempts	No. (%) Successful	No. Failed	No. Young Fledged	No. Fledged/ Nest Attempt
Eastern Bluebird	6	11	8 (73%)	3	35	3.2
Tree Swallow	20	23	22 (96%)	1	104	4.5
House Wren	6	6	6 (100%)	0	34	5.7
Blk-cp Chickadee	0	0	---	---	---	---
Totals	32	40	36 (90%)	4	173	4.3

* 8 House Sparrow nesting attempts in Prospect were removed.

Table 4. Summary of 1992 usage of 19 bluebird boxes at the University of Connecticut (Storrs campus) in Mansfield, CT.

Species *	No. Pairs	No. Nesting Attempts	No. (%) Successful	No. Failed	No. Young Fledged	No. Fledged/ Nest Attempt
Eastern Bluebird	6	8	8 (100%)	0	30	3.8
Tree Swallow	14	15	14 (93%)	1	72	4.8
House Wren	0	0	---	---	---	---
Blk-cp Chickadee	0	0	---	---	---	---
Totals	20	23	22 (96%)	1	102	4.4

* No House Sparrow nesting attempts/problems.

Table 5. Summary of 1992 usage of 16 bluebird boxes at the Country Club of Farmington in Farmington, CT.

Species *	No. Pairs	No. Nesting Attempts	No. (%) Successful	No. Failed	No. Young Fledged	No. Fledged/ Nest Attempt
Eastern Bluebird	8	18	15 (83%)	3	64	3.6
Tree Swallow	5	5	4 (80%)	1	21	4.2
House Wren	0	0	---	---	---	---
Blk-cp Chickadee	1	1	1 (100%)	0	2**	2
Totals	14	24	20 (83%)	4	87	3.6

* 3 House Sparrow nesting attempts were removed.

** A pair of bluebirds apparently evicted the pair of chickadees and raised two young to fledging.

Table 6. Summary of 1992 usage of 14 bluebird boxes at the Hopmeadow Country Club in Simsbury, CT.

Species *	No. Pairs	No. Nesting Attempts	No. (%) Successful	No. Failed	No. Young Fledged	No. Fledged/ Nest Attempt
Eastern Bluebird	5	7	4 (57%)	3	17	2.4
Tree Swallow	6	6	6 (100%)	0	25	4.2
House Wren	1	1	1 (100%)	0	5	5.0
Blk-cp Chickadee	1	1	1 (100%)	0	4	4.0
Totals	13	15	12 (80%)	3	51	3.4

* 1 House Sparrow nesting attempts was removed.

following: House Sparrows (9); cold weather (7); snake predation (6); mouse predation (1); and human vandalism (1). No losses on these properties were attributed to blowflies. House Sparrows accounted for the largest percentage (38%) of losses, illustrating their severe adverse impact on native birds. Current losses to House Sparrows are due mainly to insufficient monitoring effort, and can be prevented by regular monitoring and the removal of the sparrows and their nests.

Bluebirds have a long history of succumbing to abnormally cold winter weather (Bent 1949; Forbush 1929; Zeleny 1976), and their eggs and young are vulnerable to the cold as well, especially early in the nesting season when a sudden cold snap is most likely to occur. The chilling of eggs and young can be minimized by using draft-free, though ventilated, boxes. Tight construction and the judicious use of caulk can reduce drafts in a nestbox and reduce, though not eliminate, losses due to cold weather.

Snake predation tends to be localized, generally occurring in habitats suitable for Northern Black Racers (*Coluber c. constrictor*), Black Rat Snakes (*Diadophis punctatus edwardsii*), and Eastern Milk Snakes (*Lampropeltis t. triangulum*). The Northern Black Racer has been the only species consistently observed near the bluebird boxes and thus is considered the most likely culprit in cases of snake predation. The use of grease and / or aluminum flashing (as described

earlier) is currently being tested and to date seems to help in reducing or eliminating these losses. Mouse predation is uncommon, and is dealt with in the same way as snake predation. Losses to human disturbance are relatively few, but we believe that increased public education, law enforcement, and monitoring effort can eliminate these failures.

Raccoons, still abundant throughout the state (D. Rosgen, pers. obs.), remain a serious threat to nesting birds. Evidence indicates, however, that raccoons have attempted, but failed, to climb the PVC pipe mounted underneath each nestbox, while past methods to prevent such depredations have been either impractical or unsuccessful, or both.

Appeal

Volunteers are the life's blood of the CBRP. They help to monitor regularly approximately 1000 bluebird boxes in the state. The remainder of the boxes in the network are monitored by the owners of the land on which they are located and generally receive less attention. In order to evaluate and improve our methods, it is essential for all participants to report their data at least once a year to CBRP/CWA. Eventually, we would like to have all bluebird boxes in Connecticut, both those already in existence and those to be installed in the future, registered with us in the centralized network and following a standardized format with regard to design and monitoring. This would allow us not only to manage more effectively for the bluebird and to keep accurate track of population trends (through the increase in data) but also to provide technical and other support to those who may need it. Any donations of time, money and/or materials (such as rough-cut lumber, poles, PVC pipe, drywall/multi-purpose screws, etc.) would be much appreciated and well used.

Acknowledgments

We'd like to thank the many volunteers, scout groups and land-owners who contribute to and participate in the Connecticut Bluebird Restoration Project, which benefits not only the Eastern Bluebird but several other native cavity-nesters as well. We would also like to extend a special note of thanks to the Hartford Audubon Society for their support.

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1. Connecticut Wildlife Atlas, 72H Leigh Avenue, Thomaston, CT 06787.

2. Department of Natural Resources Management and Engineering, Box U-87, University of Connecticut, 1376 Storrs Road, Storrs, CT 06269.

3. current address: U.S. Fish and Wildlife Service, Patuxent Wildlife Research Center, Laurel, MD 20708.

CONNECTICUT FIELD NOTES: DECEMBER 1, 1992 - FEBRUARY 28, 1993

Jay Kaplan

When writing these reports, there is often a need to look back carefully to separate the actual season that we are reporting from the season with respect to the calendar. For example, there is a quick tendency to consider the past winter as one of significant snowfall. Closer examination, however, finds that the bulk of the precipitation actually fell in March 1993. Hence, you will have to wait until the next issue of "The Warbler" to hear about the blizzard of March 13th!

The winter season was not overly exciting, except for the first state record for Ash-throated Flycatcher, discovered on the Stamford Christmas Bird Count December 20th. There were no major weather disturbances to bring in vagrants from other areas, but this is not to say there was nothing of note to report for the season. Several species continued relatively new trends of appearing in the state during the winter months, while others were conspicuous by their absence.

It was not a snowy winter! Precipitation for the season totaled 9.69 inches in the Hartford area, slightly below the average of 10.88 inches. Much of the precipitation, 4.33 inches, fell in December, making for a relatively dry January and February. Temperatures were seasonal for the most part. December temperatures in Hartford never exceeded 50°F for a high, but barely dropped below 10°F for the low. January temperatures varied a great deal, reaching 63°F in Hartford January 5th and dropping to 7°F January 19th. February recorded the lowest temperatures of the season as the mercury fell to -3°F on the 7th of the month. A word about winter feeder reports. This year, the report forms, now in transition, did not provide a space for listing information on birds that frequented feeding stations. Although a few birders did provide a detailed description of feeder activity, including those species observed during the winter season, the sample received is insufficient to develop a meaningful report on winter bird feeding. Apologies to those birders who did take the time to compile this information.

LOONS - WATERFOWL

Red-throated Loon was reported sporadically off the coast this winter with a high of 11 in New Haven Harbor January 11 (SM). Twenty-three Common Loons were off Griswold Point, Old Lyme December 19 (SK). Red-necked Grebe, an uncommon winter visitor in Long Island Sound, was off Long Beach, Stratford February 11 (JY) and off

Millstone Point, Niantic February 25 (DP). American Bittern was at Hammonasset Beach State Park, Madison (hereafter HBSP) December 19 (CE) and at Frash Pond, Stratford January 1 (NC). Several other herons lingering into the winter season were more unusual. A Great Egret was at Greenwich Point, Greenwich December 8 (BO) and another was in Stamford January 17 (SM). An adult Yellow-crowned Night Heron was in Stamford December 23 (DP).

The State Department of Environmental Protection's mid-winter waterfowl survey noted that the total of Mute Swan was up 18% over the previous year and was well above the five year average. The survey also noted decreases for Canada Goose, Black Duck, Mallard and Canvasback, but large increases for scaup and scoters. It should be noted, however, that the survey is conducted along the coast. Mild weather conditions allow geese and puddle ducks to remain inland, thus giving an artificial impression of a decrease in numbers in the state.

Six Barnacle Geese of unknown origin appeared in Wallingford January 30 (SM,AB). Interestingly, this is the same number as seen on Cape Cod and Nova Scotia, moving as a family group, in January and February 1991. These birds were released on Grand Manan Is. New Brunswick, in 1989 (see *American Birds* 45:244). Observers should continue to forward reports for this species despite controversy over its status in eastern North America. A drake Wood Duck was on the Housatonic River, New Milford January 2 (EH et al.). A Green-winged Teal, Eurasian race, was at Frash Pond, Stratford January 2 (EH et al.). The Eurasian race of this species appears in Connecticut almost annually. A somewhat more regular Old World visitor, the Eurasian Wigeon, was at Seaside Park, Bridgeport January 6-21 (m.ob.), at Bradley Point, West Haven, February 2-12 (m.ob.) and the Woodmont area of Milford February 27 (JY). Canvasback, down considerably in the DEP mid-winter waterfowl survey, peaked at 200+ at Frash Pond, Stratford February 15 (SK) and at 125 at Smith Cove on the Thames River, New London February 3 (DP). Smith's Cove also hosted 1-3 Redheads, February 3-28 (DP,NC,CE). This appears to be the most reliable location for this species in Connecticut.

The mild weather this season allowed Ring-necked Ducks to linger at fresh-water ponds. Ten birds were at Konold's Pond, Woodbridge January 10 (AB) and three were at Lake Zoar, Southbury January 2 through the end of the period (m.ob.). A drake Tufted Duck, assumed to be the same bird reported in nearby Rye, New York, was in Greenwich Harbor January 2 - February 28 (m.ob.). This was most likely the

same bird that spent last winter at these localities when it was an immature. Tufted Ducks are known to return to the same wintering sites for many years in a row. The DEP mid-winter waterfowl survey counted 9,500 Greater Scaup, up from 6,700 the previous year. Over 8,000 of these birds were off West Haven January 9 and 24 (SM,DP). Lesser Scaup reports included 24 in upper New Haven Harbor, New Haven January 24 (SM), two at Smith's Cove February 3 (DP), nine at Frash Pond February 15 (SK) and 20 in New Haven Harbor February 20 (AB). A Black Scoter was seen sporadically at Harkness Memorial State Park, Waterford December 12 - January 27 (DP et al.). Barrow's Goldeneye were in Southport January 6 (NC) and on the Connecticut River, Enfield January 18 (CE), marking at least the fifth consecutive winter for this species at this locality.

VULTURES - GULLS

Turkey Vultures, once uncommon in Connecticut during the winter season, are now found with increasing fequency. A large winter roost in the New Milford area has apparently continued to grow and a likely reason for the appearance of Black Vultures in the vicinity over the past several winters. At least two **Black Vultures** were at Sunny Valley Preserve, New Milford December 19 - January 2 (EH, CW et al.) and five were there January 16 (BD,MS). Turkey Vultures, generally found in the southern portions of the state in winter, also seem to be roaming further afield. Individuals were in Suffield, January 21 (BK) and in Unionville, January 25 (JMr).

The statewide mid-winter Bald Eagle Survey was held January 9 and totaled 61 eagles, although several areas went uncovered during the count. It was estimated that the statewide winter population was approximately 80 (DEP), with most birds concentrated along the Connecticut and Housatonic Rivers. There were other reports scattered throughout the state, including a pair that was regular along the Farmington River in New Hartford / Canton through the period (m.ob.). This may be the pair that nested in Barkhamsted the previous summer.

Cooper's Hawks were reported from Newtown January 7 (PB), Storrs January 17 (GC) and in Sharon February 6 (EJ,BO). Another Cooper's Hawk, injured in Storrs, December 23 (GC) was taken to a wildlife rehabilitator. A Northern Goshawk frequented the feeding station at Roaring Brook Nature Center, Canton, in January and February (JK et al.), where its favorite fare seemed to be Mourning Dove. Other goshawks were in Torrington February 1 (BD) and North Haven, February 20 (AB). Rough-legged Hawk has been scarce in Con-

necticut over the past several winters. A dark phase bird was at the Quinnipiac marshes, New Haven January 16-24 (SM,DP), while light phase birds were at Seaside Park, Bridgeport December 10 (CB), in the Southbury/ Newtown area, January 20 - February 28 (DR,NC et al.) and over the Connecticut River, Essex February 28 (DP). The only Golden Eagle report was near the Connecticut River mouth, Old Lyme January 10 (SM et al.). A Peregrine Falcon resided in downtown Stamford throughout the period (PD,KO).

American Coot included 1-3 birds at Lake Zoar, Southbury, through the period (RN et al.) and a bird near Short Beach, Stratford December 27 (BK et al.). There were few lingering shorebirds this winter. A late Semipalmated Plover was at Harkness Memorial State Park January 10 (SM). This species is exceedingly scarce in winter, generally wintering north only to the Middle Atlantic States. A late Greater Yellowlegs was at Frash Pond December 27 - January 2 (BD et al). Red Knots also wintered at Harkness for the second consecutive winter. Up to four birds were sighted December 5, January 20 and 27 (DP,SM et al.).

Common Black-headed Gulls included a first year bird at Harkness Memorial State Park December 12 (DP) and a bird at Cos Cob Harbor, Greenwich February 19-28 (BO). A possible Ring-billed X Herring Gull hybrid at the Southbury Training School, Southbury, through the period (RN), was reported and described in a detailed report. Gulls seem to occur in an infinite number of plumages, races, and varieties, and even the "experts" can be confused by an unusual specimen. In this instance, the observer made the right decision and has forwarded a report to the Connecticut Rare Records Committee.

There were at least six reports of Lesser Black-backed Gull, primarily from the coast. Inland birds included 1-3 in New Milford January 2 - February 9 (m.ob.) and a bird in Newtown February 23 (NC). The only reports of Glaucous Gull included birds at Frash Pond December 27 and January 26 (BD,NC) and a second year bird at the Danbury landfill February 28 (CB et al.). Iceland Gulls were also reported from several of the state's landfills.

OWLS - SHRIKE

The only Snowy Owl reported this winter was a sporadic visitor to the Stratford marshes and Long Beach area, Stratford December 16 - January 26 (m.ob.). Long-eared Owls, always difficult to find, were at HBSP, December 6 (KM et al.), in Oxford January 1 (BD, DS), and at Greenwich Point February 22-24 with up to four birds in this location by the conclusion of the period (BO). It must be mentioned at this time,

that there is more than a little concern with regard to unintentional harassment of roosting owls by birders attempting to add to their "year lists." Flushing owls from daytime roosts may attract crows and as any birder who has witnessed the spectacle of a Great Horned Owl being mobbed by crows can attest, this is not in the owl's best interest. Perhaps we should consider, as is now being done by many Connecticut birders, keeping owl roosts a secret for the benefit of the birds if access or harassment cannot be controlled. February is a good time to look for Northern Saw-whet Owls as 6-8 were found in interior sections of the state February 15-28 (BD).

A very late Eastern Phoebe was in Pomfret January 2 (AB), while one in New Milford February 7 may have been a very early bird (AD). The bird of the season, and most likely the year, was the first state record of **Ash-throated Flycatcher**, discovered near Wallach's Cove, Stamford December 20 on the Stamford Christmas Bird Count (TB et al.). The bird remained until January 15, feeding on berries and affording many observers the opportunity to add this species to their Connecticut lists. Common Ravens were in Thomaston through January-February (BD,RN) and were also reported in Ashford January 10 (SR) and South Willington February 8 (DP). A Marsh Wren was at Little Pond, Litchfield December 20 (EH,RN). Eastern Bluebirds continue to do well in Connecticut with reports of wintering birds from throughout the state. Brown Thrashers were reported at Milford Point, Milford December 27 (DR,RN), at Pine Creek, Fairfield January 6 through the period (CB), where it fed upon sumac and at HBSP January 24 (DP). Northern Shrikes were well-reported in the state for the second consecutive winter with birds in Putnam January 2 (DP) and at least one bird in Middlefield January 26-February 21 (m.ob.).

WARBLERS-EVENING GROSBEAK

There were few late warbler reports this season, and those received were for species that often linger into the winter months. An Orange-crowned Warbler was in Union Cemetery, Stratford December 27 (BK et al.) and two Pine Warblers frequented an Old Lyme feeder throughout the period (DP). A Yellow-breasted Chat in Shelton December 27 (GP) was the only one reported this period.

A Chipping Sparrow remained at a Storrs feeder into January (JMc), while a Grasshopper Sparrow was reported at Greenwich Point February 15 (JB). Fox Sparrows were scarce this season with reports from Mt. Carmel, Hamden December 31 - January 3 (AB) and Milford Point February 27 (DR,RN). A Lincoln's

Sparrow reported at a Woodbury feeder, December 19 - January 1 (AD,BJ et al.) was very unusual as there is only one substantiated winter record for Connecticut. Any winter report should be thoroughly documented. White-crowned Sparrow reports included a bird in Torrington December 16-22 (RB), two at Pine Creek, Fairfield January 6 through the period (CB), and one at Short Beach, Stratford January 17 (AB). Lapland Longspurs and Snow Buntings, more common in late fall along the coast, usually disappear in early winter and this year was no exception. Lapland Longspurs were scarce, with single birds at Groton/New London Airport, Groton December 5 (DP) and HBSP January 11 (NC). Snow Buntings were in their usual haunts with eight at Millstone Point, Niantic December 12-14 (DP), 48 at Short Beach, Stratford December 27 (BK et al.), 30-40 at Sherwood Island State Park, Westport January 26 (EJ,BO) and a peak of 37 at Millstone Point January 28 (DP).

Winter sightings of Eastern Meadowlarks have become rare over the past decade, as the species is likely declining, possibly due to loss of agricultural habitat. Thus, 20+ in Bridgewater December 19 (LF) and 13 in Durham Meadows January 27 (BD) were welcome sightings. A late Northern Oriole was at Heritage Village, Southbury December 19 (BJ).

There were numerous reports of Purple Finches in good numbers at feeding stations in the northwest and southeast sections of the state, including several flocks in excess of 30 individuals and one of 50+ in the northwest corner. Believe it or not, there were a few reports of Common Redpolls. A redpoll was in New Milford December 18 (DP) and four were in Watertown, December 21 (RN). There was an unsubstantiated report of 30 redpolls and 15 Pine Siskins at a Simsbury feeder in late February, the only siskin report for the period. Three Evening Grosbeaks were at a Colebrook feeder February 8 (NC); there were few grosbeaks in Massachusetts, as well.

CONTRIBUTORS (Boldface) & OBSERVERS:

James Bair, **Robert Barbieri,** Charles Barnard, **Michael Biroscaz, Andrew Brand, Polly Brody, Diana Carroll,** Tom Burke, **George Clark, Neil Currie, Buzz Devine,** Angela Dimmitt, Pat Dugan, **Carl Ekroth,** Larry Fischer, **Merion Frolich, Diana Gray,** Ed Hagen, Buck Jenks, **Elsbeth Johnson, Jay Kaplan, Betty Kleiner, Steve Kotchko, Eleanor Loft, Steve Mayo,** John McDonald(JMc), Jim Moore(JMr), **Joseph Morin**(JMo), Kathy Murphy, **Russ Naylor, Karla O'Grady, Brian O'Toole, Gerry Parkinson, Paul Plotnick, David Provencher,** Steve Rogers, **David Rosgen,** Dwight Smith, Mark Szantyr, Chris Wood, **Jeff Young.**

70 Gracey Rd., Canton, CT 06019

ANSWER TO PHOTO CHALLENGE 5

Last issue's photo challenge looks like a familiar species and yet not. The pale patches on the head and the impression of a black mask on the forehead are certainly odd. The thick neck, long dagger-like bill, and long body reassure us, however, that this is a loon; only a cormorant or merganser might be confused for this body shape, the cormorant having a long tail and hooked bill, the merganser having a hooked bill and slender neck and obvious crest. So, this is yet another easy challenge since we have already cleaned away all but five bird species of the world. Nevertheless, loons can be difficult to identify in any plumage except *definitive* alternate plumage—in this case, as in most birds the feathercoat of *adults* worn during breeding season. The following discussion considers separation of the more difficult plumages.

The conventional wisdom on loons was to use bill shape as the definitive character, with carriage of the bill and head shape as secondary features. Under field conditions, however, these aspects are difficult to judge and too much a matter of personal interpretation. For the two pairs of species most similar to each other—Common and Yellow-billed, Arctic and Pacific—a combination of characters are required for a positive identification, with the coloration of the bill and head quite important.

The Red-throated Loon characteristically holds its bill above horizontal, but so do other species at times. Conventional wisdom would fail us on that point. Adult Red-throated Loons show a white cheek and semi-circular eye ring; the neck is mostly white, with just a strip

of dark down the back. Juveniles and first basic birds have a gray head and neck, including the foreneck. The structure of our mystery bird is also wrong for this species. The head and neck are much too thick and heavy for Red-throated, and, yes, the bill is too thick as well.

Both Arctic and Pacific Loons, until recently, were treated as one species and called Arctic Loon. The Arctic Loon breeds across arctic Eurasia, and the Pacific Loon breeds in western arctic North America. Arctic Loon is not recorded from the Northeast, whereas Pacific Loon occurs somewhat regularly. (There are many unidentified records, especially older reports). Both these species show a rather uniform coloration on the neck, being dark gray with a sharp line defining the narrow, white foreneck. Pacific Loon is slightly paler gray with a sharp line defining the narrow, white foreneck. Pacific Loon is slightly paler gray on rear head and nape, but neither Arctic nor Pacific shows the pale indentation on the side of the neck as our bird does. In addition, Arctic Loon has white flank patches above the thighs; this is apparently the best character separating it from Pacific Loon as well.

The pale indentation on the side of the neck then narrows the possible species to Common and Yellow-billed Loons, both of which have the heavy bill and rather steep forehead shown on our bird. These two species require more care to identify than is ordinarily acknowledged and several characters should be used in combination to support one's conclusion. The pale head and dark smudge on the ear are characters of Yellow-billed, and since there is only one record of this species in the Northeast, we might become very interested in this bird. In addition, conventional wisdom says that Yellow-billed holds its bill above horizontal. What we need though is a good study of bill coloration. Yellow-billed generally shows a gleaming whitish or horn-colored bill, and Common a darker bill. Some Common Loons can show very pale bills, however, so care should be taken. Look at the upper ridge of the bill; Yellow-billed Loons may show dark at the base of the bill here (immature birds) but always show pale in the distal half or so. Also look at the cutting edges of the bill—the edges where the mandibles meet. Yellow-billed is always clear yellow or white there, whereas Common Loon is dark.

There are other characters that differentiate Common and Yellow-billed Loons, some of which are visible in the photograph. For example, the cutting edges of the Common Loon are quite straight, whereas the Yellow-billed Loon has the rear line of the cutting edges upturned, giving the appearance of smiling. The feathering on the underside of the bill extends out to below the nostril in Yellow-billed, but as can be seen in the photograph, falls short of that in Common.

Not visible in the photograph, but perhaps the best character apart from bill coloration, is the fact that Yellow-billed has pale feather shafts in the outer primaries, only showing a dark tip; Commons have uniformly dark shafts in the primaries. This character could be used for instance, to identify a dead loon washed up on the beach.

So, this is a Common Loon, a familiar species, but what about the strange pattern on the head? In the first spring of life when these loons are almost one year old, they molt into first Alternate plumage, which looks very similar to Basic plumage, or the plumage we are used to seeing in winter. The head is generally paler though, and by the end of summer, these birds are quite worn. Notice how scraggly the back feathers appear. The dark mask might be the result of newly molted feathers or these feathers being dark at their bases and thus remaining dark with wear. The one-year old Common Loon was photographed by Mark Szantyr on the Naugatuck River near Waterbury in August 1992.

Louis R. Bevier

Photo Challenge 6. Identify the species. Answer next issue.

CORRECTIONS:

In Table I of the article "Ornithological Longevity", CW13-1, page 31:
Am. Tree Sparrow, "Pubished Record," should read: 10 years, 9 months.
Pine Grosbeak, "Published Record," should read: 9 years, 9 months.
Mourning Dove, "Published Record," should read: 19 years, 4 months.
Red-breasted Nuthatch, "Our Record," should read: 6 years, 2 months.

THE CONNECTICUT WARBLER

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Betty S. Kleiner
5 Flintlock Ridge, Simsbury 06070

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The editors welcome submission of articles and notes for *The Connecticut Warbler*. Manuscripts should be typed double spaced on one side of the sheet only, with ample margins on all sides accompanied with an IBM PC disk, if possible. Style of the manuscript should follow general usage in recent issues. All manuscripts receive peer review.

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THE CONNECTICUT ORNITHOLOGICAL ASSOCIATION

ABOUT OUR COVER ARTIST:

Barry Van Dusen

"Merlin (*Falco columbarius*)"

Since 1983, Barry Van Dusen has worked closely with the Massachusetts Audubon Society, producing artwork for magazines, posters, brochures and pocket guides including *Whale Watchers Guide to the North Atlantic*, and *Belize - A guide to the Country and its Wildlife*. He has also illustrated a number of books including *Bird Finding in New England* (1988), *Birding Cape Cod* (1990) and the just published *Birds of Massachusetts*. In addition to the Massachusetts Audubon Society, he has worked with many conservation organizations and has exhibited at galleries and nature centers throughout New England.

Devoted to field sketching, Barry prefers to work directly from life whenever possible. His work involves many aspects of natural history, though his favorite subjects are birds.

The Connecticut Warbler
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Contents **Fall 1993**

A THIRD ADULT BALD EAGLE TAKES AN ACTIVE PART IN RAISING YOUNG EAGLES IN CONNECTICUT

Donald A. Hopkins[1], Gerald S. Mersereau[2], Michael J. O'Leary[3]

Trios of Bald Eagles (*Haliaeetus leucocephalus*) have been reported at nests in Alaska (Sherrod et al. 1976, Heglund and Reiswig 1980) and Minnesota (Fraser et al. 1983), although little has been observed of the actions of the third adult. We report upon the actions of a third adult Bald Eagle feeding nestlings and fledglings and the reactions of the parents at a nest in Connecticut (Hopkins 1992).

Bald Eagles successfully nested in Connecticut (Victoria 1993) in 1993, for a second year consecutive year. The resident adult pair produced one chick, believed to have hatched May 1. On June 9, at the time of banding, a captive-bred chick (hatched April 28) was added to the nest. The former chick is believed to be a female and the foster chick a male, based upon bill depth and foot pad measurement (Bortolotti 1984). In 1993, 36 observations of the nest were made between April 3 and August 15. The earliest indication of a third adult in the area occurred July 17. An adult was observed perched 335 m east of the nest. The third adult was identified by a gold band on the left leg and a U.S. Fish and Wildlife Service band on the right leg. The parent adults are each banded with a single U.S. Fish and Wildlife band on the right leg. The male adult's band was visible with a spotting scope and this bird was identified as an eagle hacked from Massachusetts in 1986. The female is believed to be a 1987 eagle from the same area, although her complete band has not yet been read.

On July 17 the third adult flew into the nest with a fish, which it fed to the young, then sat in the nest tree for one hour and 39 minutes before flying north. On July 18 the third adult was seen eating a fish on the same perch upon which it was observed the previous day. The last digit on the gold band was identified at that time. This adult departed after 10 minutes. One hour and 19 minutes later an adult Bald Eagle landed on the top of the nest tree. It was followed closely by a second adult, which drove the first eagle from the top of the nest tree and replaced it, landing so hard that it broke the spike off the pine tree. The displaced eagle soared out of sight, accompanied by an immature eagle. Fifteen minutes later an adult flew into the nest with a fish for the nestlings. At this time the adult on the top of the nest tree flew off in the direction of the departed adult. It was assumed that the

first eagle in the top of the nest tree was the third adult (gold band), followed by the male parent and that the eagle flying in with a fish was the female parent.

By July 23 both young had fledged and were alternating their time between the nest and shore line. On July 24 the third adult (gold band) eagle brought food to the fledglings, in the nest and on the shore, remaining in attendance for a period of seven hours and 23 minutes. The parent eagles were not seen during this time. While the eagles were on the shore we were able to compare sizes of the fledglings with that of the third eagle. Based upon size comparisons, the third eagle appeared to be a male.

On August 7 the parent eagles and the third eagle (gold band) attended and brought fish to the fledglings. There was no interaction between the parents and the third eagle, as the latter bird was not in the area at the same time.

In observations made on August 8, 14 and 15, we were unsuccessful in identifying the one adult in the nest territory.

The only other observation of a gold-banded eagle occurred on October 27, 1991. This bird, an immature, 8 km north of the nest, also had a gold band on the left leg and a U.S. Fish & Wildlife band on the right leg. The states of Massachusetts and New York have both used gold bands on their eagles (W. J. Davis and P. E. Nye pers. comm.). Until a complete band reading is obtained, the relationship of the three adults will remain in question. The third adult is too old to be an offspring of the parent Bald Eagles, but could have been associated with one or both birds in a hacking program while the parents were still immatures.

The parent eagles have defended the whole length (13.5 km) of the Barkhamsted Reservoir since 1990, when they first attempted to nest. The appearance of a third adult, late in the breeding cycle, may have been the result of the parents relaxing their guard as the young grew large enough to fledge. It may also have been a result of the third adult's persistence in withstanding the challenge of the parent eagles, which may have taken place outside our view. The behaviors of the third eagle would seem to indicate a case of fidelity for a nest site outside its natal area, and a strong urge by an adult male to perform his natural parental duties.

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1. 27 London Rd., Windsor, CT 06095, 2. P.O. Box 321 Tariffville, CT 06081, 3. P.O. Box 492, Ellington, CT 06029.

THE 1993 SUMMER BIRD COUNT

Joseph Zeranski

Summer Bird Counts (SBC) are always sure to produce some surprises. This year King Rail, Red-headed Woodpecker (a Count Period (CP) record in 1992), Summer Tanager, and Evening Grosbeak were new Count Day (CD) treats. Additional species of note included White-winged Scoter, one of numerous non-breeding vagrant waterfowl present this year, Northern Harrier, Horned Lark, Sedge Wren, Monk Parakeet, and Barn Owl. They brought the cumulative SBC total to 225 species, of which 200 have been seen since COA assumed SBC sponsorship in 1991. Sixty-one of these species have been found annually during this three year period, while 59 species have been reported yearly on all existing SBCs.

In addition to the 185 species recorded on count day, seven more than last year, there were two Count Period (three days prior to and three days following Count Day) birds, Semipalmated Plover and Seaside Sparrow. Compared to last year, the total number of participants, number of Party Hours, and number of individual birds seen, all increased by approximately 15%; 99 participants rose to 116, 1107 Party Hours were up from 962, and 79,861 individual birds increased to 91,346.

Of the four new species, King Rail is a very local, although regular nester. Two others, Red-headed Woodpecker and Summer Tanager are currently potential nesters. This woodpecker bred regularly in Connecticut prior to the turn of the century, but it is now considered an accidental nester. The Summer Tanager has marginally expanded its range north in recent decades and its presence may be a harbinger of the future. There are very few nesting records for Evening Grosbeaks, all in the last few decades; in addition to the four individual grosbeaks reported, others were observed in Litchfield County, part of a larger summer influx in southern New England. They very well may have nested here this year. Well known for their unpredictable movements, their appearance at this time, after declining for years as winterers and migrants, and following a winter of virtually no reports, is entirely inexplicable and in character.

With so many SBCs recently established, it is at this time premature to chart long-term trends based on their results. Yet some interesting observations can still be made using last year's data.

Northern Harrier, appearing two years consecutively within the Quinnipiac Valley SBC, bears watching as it has not been verified

nesting in Connecticut for many years. An interesting statistical quirk was that both Least Flycatcher and Eastern Phoebe, adjacent neighbors in the taxonomic order of birds, each duplicated their previous year's totals, with 129 birds and 577 birds respectively.

Several examples of significantly increased numbers over the previous year were noted. Following a moderate winter influx, this year's 157 Red-breasted Nuthatches, compared to last year's 41 (more than 75% were on the Barkhamsted SBC), was quite impressive and may represent sudden, strong growth in a continuous nesting range expansion, strongest in the northwest hills. The number of Ruffed Grouse, well known for cyclic population changes, rose to 61, compared to 27 last year. Alder Flycatcher, usually considered a local and elusive nester, increased from seven to twelve birds. Making first-time appearances on three of the six counts upon which it was reported, Purple Martin produced 29 birds compared to eight in 1992. Cliff Swallows, found on three counts, increased from 59 to 156 birds, probably indicative of a southward range expansion. Both Hooded and Canada Warblers experienced an increase of about 50%. Common Grackle totals rose 50% and Brown-headed Cowbirds grew by 25%.

SBC results also suggest that several examples of population decrease have occurred. There were only eight American Woodcocks on two counts, compared to 15 birds on five counts last year. This seems to be an unusually low number for such a widespread nester. Is there a difficulty in censusing this species? Are woodcock undergoing a cyclic change or declining? Black Ducks decreased from 117 birds to just 57 this year. Competing Mallards, rose from 2,083 to 2,589 birds. Last year's 434 Carolina Wrens, resulting from a fairly steady growth of more than a decade, dropped to 242 birds, and demonstrated how susceptible this species is to high mortality during prolonged, deep snow. Other species demonstrating a decline included Marsh Wren, White-eyed Vireo, and Field Sparrow.

Intriguing as such results might seem, years may pass before they can reliably be put into perspective. The distribution of species fall into logical and predictable patterns. Usually, species are present when their required habitats exist and absent when these are nonexistent. Some species are found commonly throughout the state. Others are commonplace in some regions while absent or nearly so elsewhere. The SBCs are guides to population densities, nesting ranges and, over time, range changes. Assuming comparable coverage from year to year, the counts mirror reality with fairly little distortion and give us a better understanding of these important factors.

Birders are encouraged to join one of COA's SBCs next year and be part of this learning experience. Summer Bird Counts allow us to become much better acquainted with our summer birds and enrich our understanding of local and regional bird distribution patterns.

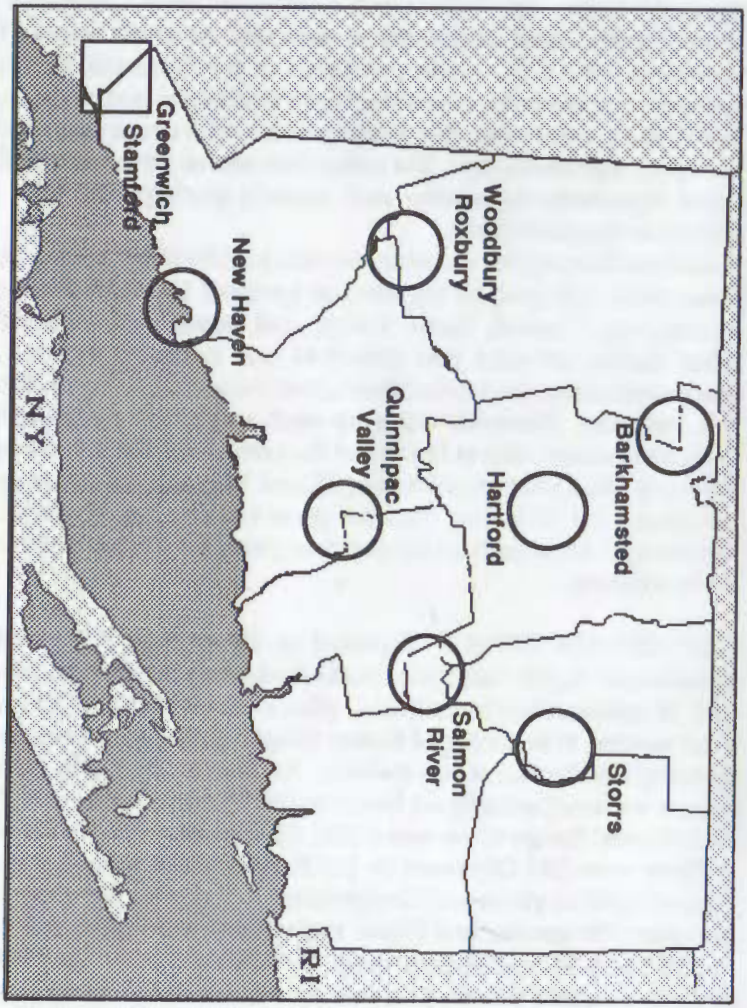
SUMMARIES

The Summer Bird Count areas, unless otherwise noted, are 15 mile diameter circles and correspond with established Christmas Bird Count circles. Brief summaries of each SBC are given below. To be consistant with CBC results published in the Connecticut Warbler, species are considered new if they have not been reported during the last 10 years, even when they were found in prior count years. Counts are listed alphabetically. The compilers names are underlined and listed alphabetically among each count's participants, with their addresses in parenthesis.

Tables following the summaries contain all the SBCs' totals. Counts from similar geographic regions are grouped together into subcategories, e.g., Coastal, Conn. Valley, and Inland sections, with the latter further divided into mid-state and northern counts. This placement is intended to facilitate a better understanding of distribution patterns. Statewide totals for each species are supplied along with comparison data at the end of the tables. All statistics are given for those SBCs over 10 years old (GS and WR) and only new species are shown for SCBs less than ten years old (the remainder). New species and those noted four or fewer years are shown under statewide columns.

STATEWIDE TOTALS: Reported on Count Days (CD) were 185 Species and 91,346 Individual birds (including 3 hybrid individuals and 18 unidentified individuals), plus 2 Count Period (CP) species. Four species, White-winged Scoter, King Rail, Summer Tanager, and Evening Grosbeak, are new to SBCs. Another two noted in the tables as new were not actually so; Red-headed Woodpecker was a CP bird in 1992; and Sedge Wren was a SBC CD species over ten years ago.

There were 234 Observers in 116 Parties which spent 1,107 Party Hours (1,055 daytime and 52 nighttime) in the field. By comparison, last year 178 species and 79,861 individuals were recorded during 962.05 Party Hours of field work by 188 observers. In 1991, less activity occurred when 149 observers totaled 625.75 Party Hours of field work recording 169 species and 64,634 individuals.



1993 Summer Bird Count Locations

INDIVIDUAL COUNT TOTAL

Barkhamsted Summer Bird Count (founded 1992)

Date: Sat. and Sun., June 26 and 27. Count Center: 41° 55' N, 72° 59' W. Area: Barkhamsted, Burlington (northern), Canton, Colebrook (southern), Granby (southwest), Hartland, New Hartford, Torrington (northeast), and Winchester. Weather: 6/26: partly cloudy with increasing clouds overnight. Temperature 70° to 87°F. Wind SW, 0-5 mph. Night: temperature 70°F. 6/27: thunderstorms and showers until 10 AM, cloudy until noon, increasingly sunny thereafter; temperature 60° to 82°F. Wind WNW, 0-20 mph, 1.5" rain. Night: temperature 67° to 72°F. Wind NW, 0-10 mph.

Totals: 115 Species, 10,165 Individuals plus 6 CP species. After the second year, the cumulative species total now stands at 123 CD species. Thirteen species were new this year, while 5 were not seen on any other SBC. Four previously recorded species, Virginia Rail, Whip-poor-will, White-eyed Vireo, and Northern Waterthrush, were not found this year, while Canada Warbler and Rufous-sided Towhee were described as declining.

Twenty-seven Observers in 19 Parties. 158 daytime and 4 night Party Hours extended over a 48 hour period.

Participants: Richard Allen, Robert Barbieri, Thomas Chappell, Ann Davenport, Douglas Davenport, Ayreslea Denny, Duncan Denny, Barbara Johnson, Paul Johnson, Jay Kaplan, Betty Kleiner, Gil Kleiner, Brian Kleinman, Joyce Marshall, Paul Martin, Kathleen Murphy, Virginia Peterson, Bruce Porter, Bruce Richardson, David Rosgen (72H Leigh Avenue, Thomaston Ct. 06787), Stanley Rosgen, Leland Sanders, Geoffrey Stiles, Ann Tancredi, John Tancredi, Louise Tucker, Roger Willis.

Greenwich-Stamford Summer Bird Count (founded 1976)

Date: Sat. and Sun., June 12 and 13. Count Center (The GSSBC covers a 15x15 mile square): 41° 05' N, 73° 37' W. Area: (Connecticut, 65% of area) Darien, Greenwich, New Canaan, and Stamford and (New York, 35% of area) Armonk, Bedford (in part), Port Chester, Rye, and White Plains (in part). Weather: 6/12: clear, hot and humid, temperature 65° to 82°F. Wind var. 5-10 mph. Night: temperature 54° to 67°F; wind calm; 6/13: sunny and clear, temperature 59° to 81°F. Wind SSW, 5 mph. Night: temperature 53° to 62°F.

Totals: 151 Species, 25,357 Individuals (including 1 hybrid and 18 unidentified individuals) plus 7 CP species. Four new species (and 1

CP) were added bringing the all time total to a memorable 202 CD species. American Woodcock was missed for the first time this year. American Black Duck and Field Sparrow were in very low numbers and Ring-necked Pheasant and Ruffed Grouse continue to decline. Twenty species were unique to this count, including nine vagrant waterfowl species.

Fifty-two Observers in 28 Parties. 322 daytime and 14 night Party Hours spanning 48 hours.

Participants: Georgia Abbott, Tom Andersen, John Askildsen, Mike Aurelia, Pat Bailey, Ken Ballas, Tom Baptist, Trudy Battaly, Gail Benson, Louis Bevier, Andrew Block, Michael Bochnik, John Bova, Lysle Brinker, Thomas W. Burke (235 Highland Road, Rye N.Y. 10580), John Caspers, Canny Clark, Albie Collins, Townsend Dickinson, Patrick Dugan, Anne French, Robert Frost, Roger Frost, Jay Gartner, Andy Guthrie, Steve Haas, Carol Hartel, Bob Kurtz, Claudia Leff, Berna Lincoln, Stan Lincoln, Frank Mantlik, Tracy Maxon, Janet Mehmel, Tom Meyer, Brian O'Toole, Gary Palmer (34 Field Road, Cos Cob, Ct. 06807), Drew Panko, William Park, Polly Rothstein, Jared Silbersher, Alice Smith, Bruce Smith, Paul Steineck, Andy Towle, Patty Towle, Mike Usai, Jim Utter, Ellen Valle, Bill Van Loan, Jr., Lynn Zeltman, Joe Zeranski.

Hartford Summer Bird Count (founded 1991)

Date: Sat. and Sun., June 12 and 13. Count Center: 41° 46' N 72° 40' W. Area: Bloomfield (in part), East Hartford, Farmington (in part), Hartford, Manchester, New Britain, Newington, Rocky Hill (northern), South Windsor (in part), West Hartford, Wethersfield, and Windsor (in part). (Results from Glastonbury and part of East Hartford were not received in time for publication). Weather: mostly sunny and warm. 6/12: temperature 60° to 85°F. Wind N, 8-10 mph; 6/13: temperature 70° to 85°F. Wind NW 5-10 mph.

Totals: 102 Species, 7,961 Individuals. Nine CD species were added this year, bringing the cumulative total to 114 species. A possible nester was Solitary Vireo. Two species were unique to this count.

Twenty-seven Observers in 11 Parties. 83 daytime and 4 night Party Hours held over a 48 hour period.

Participants: Debbie Barberi, Evelyn Bossey, Walt Bossey, George Boynton, Don Breminger, Mary Carter, Peg Curtis, Ed Czlapinski, Mary Czlapinski, B. Dawley, Paul Desjardins, F. Duffy, Carl Ekroth, B. Gorton, S. Gorton, Betty Kleiner, Gil Kleiner, Jim Moore, Kathie Murphy (274 Morningside Drive East, Bristol, Ct. 06010), Dave

Porter, Ed Quierolo, Nancy Quierolo, Dave Rosgen, Mary Rudek, Bill Schilling, Ed Wadstrom, Hans Wichman.

New Haven Summer Bird Count (founded 1991)

Date: Sat and Sun, June 12 and 13. Count Center: 41° 18' N 72° 56' W. Area: Branford (western), East Haven, Milford, New Haven, North Haven, Orange, West Haven, and Woodbridge (in part). Weather: 6/12: sunny, temperature 65° to 85°F. Wind S to N, 5 mph. Night: temperature 55° to 60°F. Wind S, 5 mph; 6/13: sunny, temperature 59° to 86°F. Wind S, 5 mph. Night: temperature 55° to 59°F. Wind S, 5 mph., partly cloudy and low humidity (50-66%) on both days.

Totals: 129 Species, 13,208 Individuals plus 2 CP species. In addition to the 46 species documented nesting in the last two years, four new species, Spotted Sandpiper, Belted Kingfisher, Hairy Woodpecker, and Rough-winged Swallow, were confirmed this year. Ten species were added to the cumulative total which now stands at 152 CD species. Seen on this count alone were 7 species. Not recorded was American Woodcock. Correction: Five Eastern Bluebirds seen in 1991 were omitted in the published totals.

Forty Observers in 17 Parties. 149 daytime and 3 night Party Hours covering a 48 hour period.

Participants: Lee Aimesbury, Marion Aimesbury, Ralph Amodei, Betty Bell, Ron Bell, Richard Bernard, Andrew Brand, Steve Broker, Jean Buck, Todd Curtis, Matt D'Errico, Richard English, Jeff Fengler, John Gaskell, Marjorie Hackbarth, Joe Himmelman, John Himmelman, Rebecca Horowitz, Katy Hubbard, Win Hubbard, Betsy Lasorso, Mike Lasorso, Pat Leahy, Carol Lemmon, Gary Lemmon, John Maynard, Steve C. Mayo (159 Kings Highway #27, Milford, Ct. 06460), Charlie Rafford, Shirley Rafford, Sally Ranti, Arnie Rosengren, Lee Schlesinger, Ray Scory, Christie Slimak, Vickie Smith, Dori Sosensky, Jane Spielman, Tony Tortora, Jeff Young, Susan Yurkus.

Quinnipiac Valley Summer Bird Count (founded 1992)

Date: Sat and Sun, June 19 and 20. Count Center: 41° 28' N, 72° 44' W (Intersection of routes 68 and 157). Area: Cheshire (in part), Durham, Guilford (in part), Killingworth (in part), Meriden, Middlefield, Middletown, and Wallingford. Weather: 6/19: sunny and hot. Temperature 68° to 90°F. Night: temperature 65° to 68°F. 6/20: temperature 67° to 86°F. Trace of rain, cloudy AM and partly cloudy PM. Night: temperature 60° to 67°F.

Totals: 103 Species, 9,574 Individuals. Two species were unique to

this count this year. Fourteen species were added to last year's total, bringing the count's cumulative CD total to 113. Not recorded this year was Broad-winged Hawk. Correction: Twenty-three Eastern Bluebirds was the accurate number observed in 1992.

Sixteen Observers in 6 Parties. 56.25 daytime and 4 night Party Hours spanning 48 hours.

Participants: Mark Carabetta, Kevin Clark, Peter Clyne, Marcia Klattenberg, Ronald Klattenberg, Jessica Martha, Pat Martha, William Martha, Jim McBride, Nancy Morand, Noble Proctor, Debra Schultz, John Schultz, Wilford Schultz (93 Harrison Road, Wallingford, Ct. 06492), George Zepko.

Salmon River Summer Bird Count (founded 1992)

Date: Sat. and Sun., June 12 and 13. Circle Center: 41° 33' N, 72° 26' W. Area: Colchester (western), East Haddam, Haddam, Middletown (southeast), and Portland. Weather: 6/12: temperature 59° to 84°F. Wind NE, 5 mph. Night: cool and partly cloudy; 6/13: temperature 57° to 82°F. Wind NE, 5 mph.

Totals: 93 Species, 3,034 Individuals plus 2 CP species. Not found this summer were Wild Turkey, Brown Creeper, Pine Warbler, and Orchard Oriole. Eight new CD species were added to the 93 seen last year, while Purple Martin and Purple Finch were reported nesting in 1993. Note: Only eight of the thirteen SBC territories were covered this year.

Fourteen Observers in 6 Parties. 34 daytime and 5 night Party Hours were held over 2 days.

Participants: Mary Augustiny, Elana Coffey, Larry Cyrulik, Barbara Fuller, Alison Guiness, Marcy Klattenburg, Beth Lapin, Patricia Larson, Joseph Morin (298 Main Street, Cromwell, Ct. 06416), Patricia Rasch, Ed Reneson, Leslie Starr, Theo Stein, George Zepko.

Storrs Summer Bird Count (founded 1990)

Date: Sat. and Sun., June 19 and 20. Count Center: 41° 48' N, 72° 15' W. Area: Andover, Ashford, Chaplin, Coventry, Mansfield, Tolland, Willimantic, Willington, and Windham. Weather: 6/19: hazy, hot, and humid. Temperature 68° to 90°F. Wind var. 5-10 mph. 6/20: light rain after dawn, sporadic showers into PM, very humid, temperature 65° to 74°F. Wind var., 5 mph, trace of rain.

Totals: 108 Species, 5,340 Individuals. Mute Swan was added this year to the cumulative total which now stands at 117 CD species. Cooper's Hawk was a breeder this year.

Thirteen Observers in 8 Parties. 81.25 daytime Party Hours spanned a 48 hour period.

Participants: Carol Auer, Louis Bevier, Bruce Carver, George Clark, Dave Corsini, Marilynn Higgins, Dolores Hilding, John McDonald, Ann Phillips, Carol Phillips, Steve Rogers (75 Charles Lane, Storrs, Ct. 06268), Kevin Segar, Avo Somer.

Woodbury-Roxbury Summer Bird Count (founded 1978)

Date: Sun., June 6. Count Center: 41° 32' N, 73° 16' W. Area: Bethlehem, Bridgewater, Brookfield, Middlebury, New Milford, Newtown, Roxbury, Southbury, Washington, and Woodbury. Weather: AM: cloudy, misty, occa. rain. Mid-day: clearing, blustery, partly cloudy. Afternoon: mix of clouds, sun, and a few sprinkles. Temperature 55° to 70°F, wind WNW, 0-25 mph, 1/2" rain.

Totals: 126 Species, 16,707 Individuals (including 2 hybrid individuals). Two species were unique to this count this year, one of which was a new count species, bringing the cumulative CD species total to 161.

Forty-five Observers in 21 Parties. 171.5 daytime and 18 night Party Hours spanning 24 hours.

Participants: Lorraine Amalavagie, Jan Amalavagie, Guy Badger, Ray Belding, Ed Briggs, Mildred Brown, Bob Carter, Donna Civitello, Mary Ann Currie, Neil Currie, Buzz Devine, Angela Dimmitt, David Emond, Larry Fischer, Bob Foley, Ethel Follett, Ken Frey, Alice Gale, Jon Gibbs, Sharon Gibbs, Rynn Naylor-Girard, Greg Hanisek, Buck Jenks, Jeff Kirk, Susan Kirk, Carol Longstreth, John Longstreth, Gerry Marcellano, Russ Naylor (44 Church Street, Woodbury, Ct. 06798), Ben Olewine, Jack Olszewski, Virginia Peterson, Carol Potter, Ken Rahing, Dave Rosgen, Rochelle Skinner, Darcy Thurrott, Art Titus, Dave Tripp, Jr., Terry Weaver, Chris Wood, Francis Zygmont.

163 Field Point Rd., Greenwich, CT 06830

1993 CONNECTICUT SUMMER BIRD COUNTS

SPECIES	Coastal GS	Coastal NH	CT Valley HA	CT Valley SR	Inland Mid-state QV	Inland Mid-state WR	Inland Northern BA	Inland Northern ST	State Total 1993
Common Loon	3	2							5
Pied-billed Grebe	CP	1							1
Double-cr. Cormorant	525	236	5	4	4		1	2	777
Least Bittern	CP		2		2				4
Great Blue Heron	12	1	7		7	6	6	8	47
Great Egret	76	12							88
Snowy Egret	180	10							190
Little Blue Heron	1								1
Green-backed Heron	39	25	7	5	13	14	2	11	116
Black-cr. Night-Heron	184	26							210
Yellow-cr. Night-Heron	5								5
Glossy Ibis	1								1
Mute Swan	100	142			105	29		1	377
Snow Goose	1								1
Brant	5								5
Canada Goose	1973	195	215	66	44	641	227	18	3379
Wood Duck	106	25	6	6	37	75	7	11	273
American Black Duck	14	26	2		11	1	3		57
Mallard	1083	194	397	13	611	169	88	34	2589
Mallard x Black Duck						2			2
Blue-winged Teal			1						1
Northern Shoveler	2								2
Gadwall	2	5							7
American Wigeon	1								1
Greater Scaup	3								3
Lesser Scaup	1								1
White-winged Scoter	1								1
Bufflehead	2								2
Hooded Merganser	1	1					CP		2
Common Merganser						10	22		32
Red-br. Merganser	3								3
Turkey Vulture	20	23	11	11	36	59	10	19	189
Osprey	3	6	1			1	CP		11
Bald Eagle						1	7		8
Northern Harrier					1				1
Sharp-shinned Hawk						6	CP		6
Cooper's Hawk	4	1			3	5	CP	1	14
Northern Goshawk	5					1	1		7
accipiter species		2				1			3
Red-shouldered Hawk	4	5	2	3	1	11	1	1	28
Broad-winged Hawk	8	5	2			4	17	3	39
Red-tailed Hawk	45	21	18	5	21	52	10	5	177
American Kestrel	2	1	2		11	3	2	3	24

SPECIES	Coastal GS	Coastal NH	CT Valley HA	CT Valley SR	Inland Mid-state QV	Inland Mid-state WR	Inland Northern BA	Inland Northern ST	State Total 1993
Ring-necked Pheasant	32	7	9	1	3	19	1		72
Ruffed Grouse	**7**				6	22	21	5	61
Wild Turkey	3	12	10		7	24	35	6	97
Northern Bobwhite		1		2	3			4	10
Clapper Rail	5	3							8
King Rail	1								1
Virginia Rail	1	1	2			7			11
Sora		1							1
Black-bellied Plover	1	2							3
Semipalmated Plover	CP								CP
Piping Plover		11							11
Killdeer	54	57	30	6	32	58	7	24	268
American Oystercatcher	13	CP							13
Greater Yellowlegs	2	2							4
Spotted Sandpiper	2	7				6	1	4	20
Ruddy Turnstone	1								1
Semipal. Sandpiper	CP	18							18
Least Sandpiper	CP	2							2
White-rump. Sandpiper		3							3
Dunlin		6							6
American Woodcock						3	5		8
Laughing Gull	59	10							69
Bonaparte's Gull	2								2
Ring-billed Gull	354	375	36	4	23	12	CP	4	808
Herring Gull	380	466	38	13	16	14		3	930
Great Bl.-backed Gull	151	159		9	5	1			325
gull species		57				300			357
Common Tern	51	50							101
Least Tern	90	250							340
Rock Dove	494	198	66	19	402	129	45	44	1397
Mourning Dove	484	412	190	65	400	480	199	170	2400
Monk Parakeet		2							2
Black-billed Cuckoo	2	1			2	**1**		1	7
Yellow-billed Cuckoo	7				1	3		1	12
Barn Owl					5				5
Eastern Screech-Owl	22	CP	1	5	8	9	CP		45
Great Horned Owl	3		7	1		1	3	1	16
Barred Owl	2	1		2		6	3	1	15
Common Nighthawk		3				2			5
Whip-poor-will		1		5		2			8
Chimney Swift	56	38	46	17	46	200	56	33	492

BA - Barkhamsted
GS - Greenwich-Stamford
HA - Hartford
NH - New Haven
QV - Quinnipiac Valley
SR - Salmon River
ST - Storrs
WR - Woodbury-Roxbury

XX Noted 4 or fewer Yrs.
XX Species new to Count
XX New 10 Yr. High Total
XX New 10 Yr. Low Total (Bold)

1993 CONNECTICUT SUMMER BIRD COUNTS (cont'd)

SPECIES	Coastal		CT Valley		Inland				State Total 1993
					Mid-state		Northern		
	GS	NH	HA	SR	QV	WR	BA	ST	
Ruby-thr. Hummingbird	3	3	2	1		8	23	2	42
Belted Kingfisher	20	16	8	4	12	25	29	10	124
Red-hdd. Woodpecker			1						1
Red-bell'd. Woodpecker	117	29	12	14	16	25	6	20	239
Yel.-bellied Sapsucker							31		31
Downy Woodpecker	139	47	48	9	38	59	81	31	452
Hairy Woodpecker	47	18	5	4	2	29	27	13	145
Northern Flicker	280	113	89	23	54	150	65	43	817
Pileated Woodpecker	29		4	2	4	9	18	2	68
Eastern Wood-Pewee	134	36	30	18	30	83	39	58	428
Acadian Flycatcher	6	2	1	2		15	3	3	32
Alder Flycatcher	2				3	2	3	2	12
Willow Flycatcher	73	38	8	5	13	35	10	4	186
Least Flycatcher	1			8	4	35	47	34	129
Eastern Phoebe	119	45	39	35	33	134	119	53	577
Gr. Crested Flycatcher	83	37	17	7	26	53	14	33	270
Eastern Kingbird	91	32	44	24	48	96	75	81	491
Horned Lark							1		1
Purple Martin	5	7	1	6	8	2			29
Tree Swallow	116	85	190	33	84	172	383	131	1194
N. Rough-wg. Swallow	79	30	9	2	30	31	51	27	259
Bank Swallow		37	33	4	2	22	142	27	267
Cliff Swallow	75					79	2		156
Barn Swallow	339	226	59	21	186	334	182	199	1546
Blue Jay	472	279	103	43	188	**231**	232	77	1625
American Crow	1002	541	352	88	205	789	300	184	3461
Fish Crow	16	19	7						42
Common Raven					2		2		4
Black-capped Chickadee	365	123	127	61	64	**231**	472	144	1587
Tufted Titmouse	375	104	105	54	39	178	124	74	1053
Red-breasted Nuthatch	24	2	5	2	3		115	6	157
White-br. Nuthatch	94	10	12	5	11	32	53	25	242
Brown Creeper	6		5			5	28	4	48
Carolina Wren	93	51	12	29	9	28	4	16	242
House Wren	304	62	46	63	59	**117**	204	72	927
Winter Wren	5	3				7	18	2	35
Sedge Wren						1			1
Marsh Wren	12	18	7						37
Golden-crowned Kinglet	5						6		11
Blue-gray Gnatcatcher	22		11	4		40	33	36	146
Eastern Bluebird	59	6	100	8	14	131	99	20	437
Veery	250	32	7	20	21	216	207	119	872
Hermit Thrush	2	3		2		1	87	4	99

SPECIES	Coastal GS	Coastal NH	CT Valley HA	CT Valley SR	Inland Mid-state QV	Inland Mid-state WR	Inland Northern BA	Inland Northern ST	State Total 1993
Wood Thrush	397	118	64	61	86	280	143	97	1246
American Robin	1554	665	495	195	760	1370	509	254	5802
Gray Catbird	1063	376	252	174	299	575	408	227	3374
Northern Mockingbird	224	206	144	47	121	136	47	56	981
Brown Thrasher	40	16	3	3	12	**18**	2	11	105
Cedar Waxwing	184	101	104	36	52	187	297	67	1028
European Starling	1332	2209	1134	188	1439	1179	213	439	8133
White-eyed Vireo	27	4		8		2		4	45
Solitary Vireo	6	1	5		1	27	43	1	84
Yellow-throated Vireo	47	5	6	7	3	46	31	28	173
Warbling Vireo	59	15	22	9	27	103	25	32	292
Red-eyed Vireo	332	65	91	58	50	226	371	80	1273
Blue-winged Warbler	194	82	17	63	35	**141**	54	52	638
"Brewster's Warbler"	1								1
"Lawrence's Warbler"						1			1
Nashville Warbler	1						1		2
Northern Parula	1					1			2
Yellow Warbler	545	189	95	75	103	**306**	122	158	1593
Chestnut-sided Warbler	30	11	19	9	9	137	136	24	375
Magnolia Warbler						1	53		54
Black-thr. Blue Warbler	CP			1			72		73
Yellow-rumped Warbler		1			1	2	73		77
Black-thr. Green Warble	20	8	2	5	2	24	39	3	103
Blackburnian Warbler						9	45	1	55
Pine Warbler	40	10	26		6	9	41	8	140
Prairie Warbler	22	21	20	34	26	98	13	25	259
Cerulean Warbler	1					3		5	9
Black-&-White Warbler	190	49	11	18	10	85	137	37	537
American Redstart	41	7	20	48	12	187	260	59	634
Worm-eating Warbler	109	18	9	32	14	22	1	18	223
Ovenbird	248	74	39	59	34	**164**	244	93	955
Northern Waterthrush	1	1			1	**2**		3	8
Louisiana Waterthrush	49	4	2	9		**30**	18	8	120
Kentucky Warbler	3								3
Common Yellowthroat	315	123	80	65	112	**276**	345	99	1415
Hooded Warbler	**5**	7		12	1	1			26
Canada Warbler	4					6	8	3	21
Yellow-breasted Chat	1								1
Summer Tanager	1								1
Scarlet Tanager	155	47	48	11	14	119	98	51	543
Northern Cardinal	390	258	141	68	124	258	136	75	1450

BA - Barkhamsted
GS - Greenwich-Stamford
HA - Hartford
NH - New Haven
QV - Quinnipiac Valley
SR - Salmon River
ST - Storrs
WR - Woodbury-Roxbury

XX Noted 4 or fewer Yrs.
XX Species new to Count
XX New 10 Yr. High Total
XX New 10 Yr. Low Total (Bold)

1993 CONNECTICUT SUMMER BIRD COUNTS (cont'd)

SPECIES	Coastal GS	Coastal NH	CT Valley HA	CT Valley SR	Inland Mid-state QV	Inland Mid-state WR	Inland Northern BA	Inland Northern ST	State Total 1993
Rose-breasted Grosbeak	93	20	20	4	12	**61**	76	16	302
Indigo Bunting	93	48	32	5	11	60	23	12	284
Rufous-sided Towhee	170	71	27	55	59	164	55	59	660
Chipping Sparrow	478	85	187	73	94	333	240	112	1602
Field Sparrow	17	13	17	18	18	**63**	19	19	184
Savannah Sparrow			7			5			12
Sharp-tailed Sparrow	5								5
Seaside Sparrow	CP								CP
Song Sparrow	705	340	283	48	149	**470**	349	126	2470
Swamp Sparrow	20	3	3	19	29	28	25	13	140
White-throated Sparrow							2		2
Dark-eyed Junco							49		49
Bobolink	4	1	22		27	**151**	34	18	257
Red-winged Blackbird	810	762	351	216	708	837	133	227	4044
Eastern Meadowlark	9	3	1		41	**20**	1	6	81
Common Grackle	1255	533	481	129	1059	847	209	113	4626
Brown-headed Cowbird	273	198	96	41	194	227	112	101	1242
Orchard Oriole	14	6			2	3			25
Northern Oriole	293	93	91	44	42	**171**	50	53	837
Purple Finch		1	1	5		3	55	1	66
House Finch	895	555	344	98	305	831	285	197	3510
American Goldfinch	308	167	232	47	169	301	234	70	1528
Evening Grosbeak							4		4
House Sparrow	706	443	305	74	227	304	110	204	2373
Additional Hybrids	1					2			3
Unidentified Individuals	18								18
TOTAL INDIVIDUALS	25357	13208	7961	3034	9574	16707	10165	5339	91345
Count Day Species	151	129	102	93	103	126	115	108	185
Count Period Species	7	2	0	2	0	0	6	0	2
DEGREE OF EFFORT:									
Party Hours (PH)	336	152	87	39	60.25	189.5	162	81.25	1107
Day PH	322	149	83	34	56.25	171.5	158	81.25	1055
Night PH	14	3	4	5	4	18	4	0	52
Observers	52	40	27	14	16	45	27	13	234
Parties	28	17	11	6	6	21	19	8	116
Individual Birds/10 PH	755	869	915	778	1589	882	627	657	825
Individual Birds/Observer	488	330	295	217	598	371	376	411	390
% of PHs	30	14	8	4	5	17	15	7	100
% of Total Birds	28	14	9	3	10	18	11	6	100

BA - Barkhamsted
GS - Greenwich-Stamford
HA - Hartford
NH - New Haven
QV - Quinnipiac Valley
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ST - Storrs
WR - Woodbury-Roxbury

XX Noted 4 or fewer Yrs.
XX Species new to Count
XX New 10 Yr. High Total
XX New 10 Yr. Low Total (Bold)

RUTH A. LÖF
1913-1992

George A. Clark, Jr.

Ruth Löf was a leading bird bander and a major participant in bird study in northeastern Connecticut. Born in Malden, Massachusetts, she later lived in Melrose, Massachusetts, moving to Storrs, Connecticut, in 1952. Although long interested in birds in a general way, she became truly active in bird study only after she moved to Connecticut. A single event reportedly triggered her interest in banding. One day while talking on the telephone with a friend, she heard a loud screeching noise over the phone. Inquiring as to the source of the noise, she was told that it came from a Blue Jay being banded. It is unlikely that very many banders began by listening to the telephone sound of a bird being banded.

The bander of that Blue Jay was Frank McCamey, one of the first to band wild birds on a regular basis in the Storrs area. In the late 1950s McCamey was a graduate student studying under Dr. Ralph M. Wetzel at the University of Connecticut. In connection with his doctoral study of Black-capped Chickadee populations, McCamey banded in numerous local sites and enlisted the aid of many interested area residents.

Ruth Löf's curiosity about the noise on the telephone led her to meet McCamey, who showed her how to band birds and who found her an exceptionally able learner, partly because she had prior experience in handling birds — caged canaries kept at home. Soon she was banding on her own. By 1963, Dr. McCamey had left the area but on the recommendation of Dr. James A. Slater of the University, Ruth Löf became the master permittee for banding under the Natchaug Ornithological Society (NOS) permit. She began with a group of 11 subpermittees, people who had been introduced to banding by Frank McCamey. Also in 1963, Mrs. Löf's husband, John Löf, for many years director of the University computer center, began to computerize the NOS banding records which eventually came to include more than 30,000 birds banded in a 28 year period. Ruth remained as the master permittee into the early 1980's and thereafter assisted with the banding and record-keeping. Such banding, conducted according to standard procedures established and regulated by the U.S. Fish and Wildlife Service, is a major technique for learning about the movements, mortality, longevity, and other aspects of the lives of wild birds.

Bird Banders at the Löf residence from left to right: Winnie Burkett, Ruth Löf, Marilynn Higgins and Shirley Davis
(Photo by Louis Bevier)

One of Ruth Löf's three sisters, Marion McDonald, independently took up bird banding in Massachusetts. One of the difficulties of banding in the late 1950's was the lack of tools suitable for placing the numbered metal bands on the legs of birds and for removing bands when necessary. Although most banders had a variety of pliers and other tools at hand, opening bands and closing them neatly around

the legs often required considerable attention and effort. This was much simplified when Marion's husband, Roger McDonald, a tool maker by trade, developed the first pliers especially designed for banders. Such pliers built and sold by him, now greatly facilitate the banding process and are now to be found in use throughout the Americas.

The discoveries made by Ruth Löf and her collaborators were many and varied. Perusal of back issues of *Bird-Banding* (now called *Journal of Field Ornithology*) reveals a number of maximal longevity records established through the Storrs area banding. For two species, Black-capped Chickadee and Purple Finch, she published summaries of the findings (Löf 1967, 1973). Many of the early results were included in Manter's (1975) summary of information on birds of the Storrs area, and additional banding results will appear in a revision of that volume now in preparation by the NOS. Ruth Löf is credited with calling attention of pathologists and parasitologists to the occurrence of a previously unstudied disease in Blue Jays. In the worst cases, the jays lose their ability to swallow and consequently starve to death. Studies at the University of Connecticut revealed that a parasitic nematode worm was the cause (Helmboldt et al. 1971). Mrs. Löf is also believed to be the only person to observe and report dust bathing behavior by a member of the tyrannid flycatcher family — a Great Crested Flycatcher (Löf 1985). These observations, like many of her other findings, were made in her own yard and illustrate how much can be discovered close at hand by alert observers with patience and dedication.

Although most of her banding was done in that backyard area, Mrs. Löf was an early volunteer at Manomet near Plymouth, Mass. There she mist-netted and banded in cooperation with Kathleen ("Betty") Anderson in a program that eventually developed into a major bird research organization, the Manomet Bird Observatory. In those early years of banding at Manomet, one of the problems was seeing birds that entered the mist-nets at dusk. Reportedly Mrs. Löf's dog Julie accompanied her on the final net check of the evening and, by scent, found and pointed out netted birds that might otherwise have been overlooked in the darkness.

Another of Mrs. Löf's contributions was helping less experienced banders, many of them University students. One of these was former graduate student, now U.S. Fish and Wildlife Service Biologist, Susan Jewell, who analyzed the weights and wing lengths of Blue Jays, many of which were banded by various banders of the NOS in Ruth Löf's backyard (Jewell 1986). Later Susan Jewell accepted a position in the

southeastern U.S. in which banding was a regular part of the job. There she banded young Wood Storks in nests reached by climbing high off the ground in trees — quite a change from banding small landbirds in the Löf's yard. In addition to informal training for banders, Mrs. Löf also presented many programs about birds to garden clubs, senior citizen groups, and school classes.

Ruth Löf's activities also involved the rehabilitation of wild birds. A variety of species were involved at different times, including an American Kestrel and a Cedar Waxwing. For more than three months she kept a recovering Ruby-throated Hummingbird at home, feeding it fruit flies and syrup as major parts of the diet. In the evenings she could direct the bird's flying from room to room simply by turning lights on and off. The bird always moved toward a lighted room. Once, when a group of NOS members met in her living room, she thus guided the bird into the room for all to see.

Ruth Löf regularly participated in Christmas Counts and NOS May Counts. When her health declined and she was no longer up to full activity, a group of NOS banders came to the Löf's residence regularly, once a week through most of the year and once a month in December through February. Such a well organized program of banding would not have been possible without the considerable supporting effort and encouragement provided by both the Löf's. Banding activity was conducted in the garage in the warmer months and in the heated basement during the winter. NOS banding leaders included first Shirley Davis and later Winnie Burkett, and numerous others participated. Ruth Löf always enjoyed seeing the birds and the banders and talking about birds with the participants. For the latter, it was an exceptional opportunity to see and photograph birds at close range. Among the less common species banded were Gray-cheeked Thrush, Mourning Warbler, Connecticut Warbler, Lincoln's Sparrow, and Rusty Blackbird.

Throughout the years of banding at the Löf's, there was always something of interest going on. In the early years NOS member Richard May once climbed high in a tree to band young Pileated Woodpeckers in a nest behind the house. Once Ruth captured a Connecticut Warbler by simply reaching out and grabbing it after it had flown through an open door and was cornered in the garage. Red-shouldered Hawks often nested in the vicinity. Fall and spring migration always brought the possibility and frequently the actuality of finding uncommon species. Common Redpolls, Pine Siskins, and Evening Grosbeaks often enlivened winter banding.

Although the focus of this article is on Ruth Löf's ornithological activities, it should be mentioned that she had a variety of other interests and a considerable involvement in programs for helping others. She is survived by her husband, a son, a granddaughter, and three sisters. Memories of her cheerfulness and enthusiasm remain as an inspiration for those of us who were privileged to know her.

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WINTER SCAUP POPULATIONS IN CONNECTICUT COASTAL WATERS

John S. Barclay[1] and James M. Zingo[1,2]

Historically, Long Island Sound has held winter populations of both Greater (*Aythya marila*) and Lesser (*A. affinis*) Scaup, but primarily Greaters that migrate from their breeding grounds in the Alaskan tundra (Figure 1). In the past, Greater Scaup have been abundant, occurring in large "rafts" on coastal waters during fall, winter, and as late as early May from Massachusetts to New Jersey, including especially Long Island Sound (Arbib et al. 1966; Bagg and Eliot 1937; Bellrose 1976; Bent 1923; Bull 1974; Chapman 1937; Connett 1947; Cruickshank 1942; Delacour 1959; Forbush 1912, 1925; Merola and Chasko 1989; Phillips and Lincoln 1930; Zeranski and Baptist 1990). Capt. Brooks, the lighthouse keeper of Falkner Island, cited by Merriam (1877), reported that there were "plenty at Guilford, Conn." In 1921, Walcott stated that Greater Scaup were "never more numerous than between 1890 and 1900." For 1948, the estimate of wintering ducks by the Connecticut warden service was 95,020 scaup of both species (Connecticut State Board of Fisheries and Game 1949). Christmas Bird Counts (CBCs) in the 1940's and 1950's along the Sound included the following: 1) an estimate of 32,000 scaup (of both species) off Stratford, Bridgeport, Fairfield, and Westport, CT on December 27, 1941 (42nd CBC); 2) 40,000, 57,529, and 32,550 Greater Scaup off western Long Island, New York in December 1952, 1953, and 1954 respectively (53rd through 55th CBC); and 3) 16,558 off Westport, CT on December 28, 1957 (58th CBC). Nichols (1957) noted "a dense raft of scaup, half a mile in length" at Orient, Long Island, NY, in February 1957. Although the wintering population in Connecticut averaged about 40,000 in the late 1950's (Merola and Chasko 1989), recent estimates indicate that only a few thousand Greater Scaup have wintered on Long Island Sound along the Connecticut coast during the past few years (data from Connecticut Department of Environmental Protection [CT DEP] midwinter waterfowl survey).

The numbers of winter scaup recorded on the U.S. Fish and Wildlife Service (USFWS) midwinter inventory have declined almost steadily for about 30 years in the following areas: 1) all flyways in the U.S. and Canada (Figure 2); the Atlantic flyway (Figure 3); the states of Massachusetts, Rhode Island, Connecticut, New York, and New Jersey combined (Figure 4); and coastal Connecticut (Figure 5) (Steiner

Adult male Greater Scaup, showing the white wing stripe which extends boldly onto the primaries and helps to distinguish this species from the similiar Lesser Scaup in flight. (Photo by G.M. Haramis)

1984, Merola and Chasko 1989). On each graph, we show the results of linear regression analysis, i.e., fitting the data to a best-fit line. All, especially Connecticut and nearby states (Figures 4 and 5), showed statistically significant correlation between population and year, with fairly strong r values (Pearson's correlation coefficient).

Relatively few Lesser Scaup winter on salt water along the North Atlantic coast, including Connecticut (Root 1988). Lessers tend to winter either further inland on freshwater or further south than Greaters (Arbib et al. 1966; Bagg and Eliot 1937; Bellrose 1976; Bent 1923; Bull 1974; CBCs; Chapman 1937; Cruickshank 1942; Delacour 1959; Forbush 1912, 1925; Hill 1965; Merola and Chasko 1989; Phillips and Lincoln 1930; USFWS harvest data). Thus the decline of wintering scaup on Long Island Sound appears to be due primarily to losses of Greater Scaup (King and Barclay in prep.). Possible explanations are that: 1) scaup populations formerly using Long Island Sound have greatly decreased in numbers; 2) these populations have moved elsewhere for the winter; or 3) both decline and relocation have occurred.

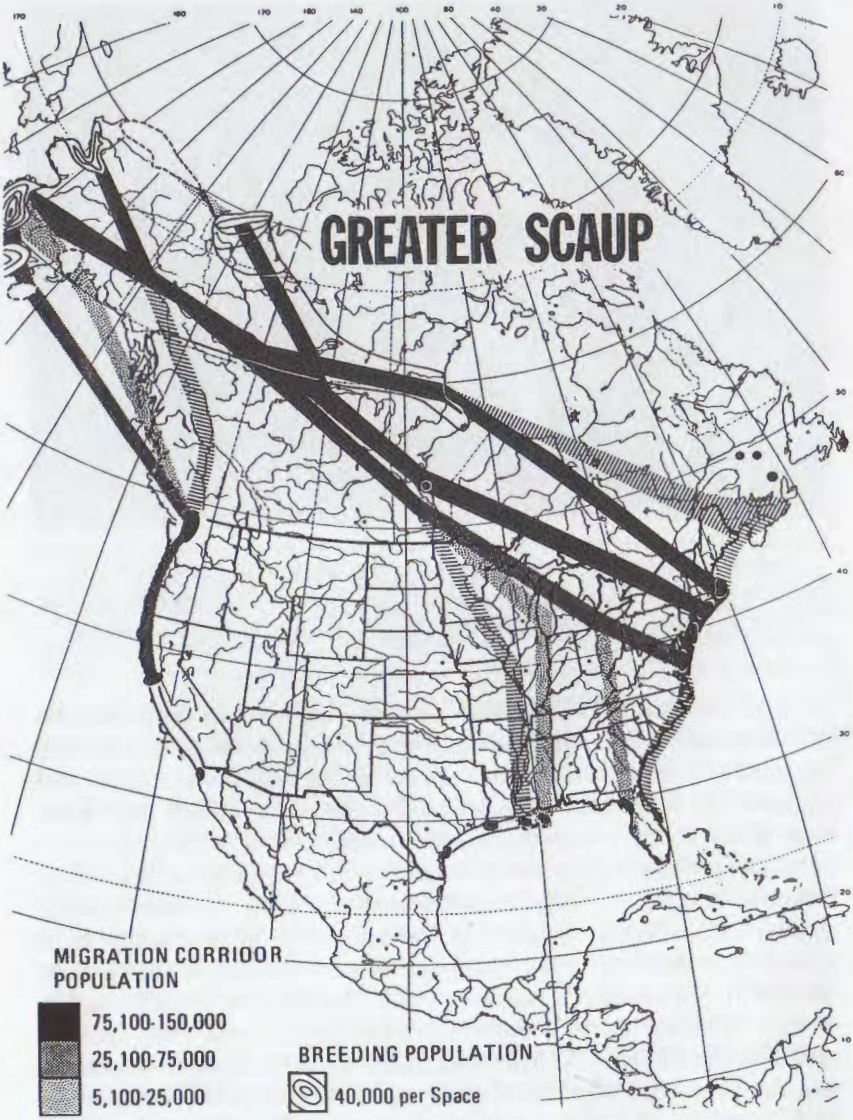

Figure 1. Greater Scaup migration pathways from their breeding grounds in western Alaska to their wintering areas (reprinted from Bellrose (1976) with permission from Stackpole Books and the Wildlife Management Institute).

Sources of Data for Initial Investigation.

USFWS data on breeding and wintering populations and hunter harvests for both Greater and Lesser Scaup have been compiled and examined in an attempt to clarify the history of use of Long Island Sound by wintering scaup.

The USFWS began aerial surveys of breeding waterfowl in the late 1940s, and currently cooperates with the Canadian Wildlife Service, to obtain estimates of populations and their reproductive success in order to monitor the breeding status of waterfowl and their habitats. Breeding populations are surveyed in May and early June. One set of standard procedures (USFWS 1977, Novara et al. 1983, Henny et al. 1972) was followed until 1991 when certain analytical techniques were changed and retroactively applied to all earlier data (Bortner et al. 1991). The type and stability of habitat and the density of nesting waterfowl determine how the breeding range is divided into strata that are surveyed from the air. In general, aircraft fly at 30 to 60 m above the ground along transects divided into 29 km segments within each stratum. Typically, a pilot-navigator-observer and a passenger-observer each estimates numbers of birds in a 100 m wide strip on their respective sides of the aircraft. Variables to be considered include weather, time of day, water conditions, habitat cover, and differences in the capability of observers (Henny et al. 1972).

The midwinter inventories (MWI), conducted each January, are comprehensive cooperative state and federal surveys of waterfowl wintering in North America. Included are the Pacific, Central, Mississippi, and Atlantic Flyways of the United States and the East Coast; Interior Highlands and Southern West Coast; and West Coast and Baja California Flyways of Mexico, for a total of seven North American Flyways. As an example of the yearly effort, the 1980 survey of the Mississippi Flyway involved 442 people, 55 aircraft, 308 automobiles, and 41 boats and covered 60,774 km (Novara et al. 1983).

Christmas Bird Counts (CBCs) of wintering bird populations are conducted across the continent under the sponsorship of the National Audubon Society. CBCs have historically been published in Bird-Lore (1900-1941), Audubon Magazine (1941-1946), Audubon Field Notes (1947-1970), and, since 1971, American Birds.

Initial Investigations

Long Island Sound and New York Harbor appear to have been the major wintering areas for Greater Scaup for most of this century or longer (Bagg and Eliot 1937; Bellrose 1976; Bull 1974; all CBCs; Cruickshank 1942; Forbush 1912, 1925; Root 1988). Banding recoveries indicate that the primary breeding area is roughly 3,500 miles

(5,500 km) to the northwest, in the coastal tundra of the Kuskokwim River/Yukon River Delta, Alaska (Bellrose 1976). In this region the Lesser Scaup is relatively scarce as a breeder whereas elsewhere in Alaska and Canada, Lessers predominate and Greaters are relatively infrequent (Bent 1923; Bull 1974; Merola and Chasko 1989; Phillips and Lincoln 1930).

Estimates of the continental breeding populations for both species of scaup, and estimates for those strata (8-11) in Alaska, where most of the Greater Scaup breed, indicate stable populations, with possibly only a very slight decline, since 1955 (Figures 6 and 7). Dickson (1989) used a method called route-regression analysis to show a statistically significant upward trend in numbers of continental breeding scaup from 1955-1989, but this was done before the USFWS changed their analytical techniques in 1991 and improved the accuracy of the historic population estimates (Bortner et al. 1991).

Between 1950 and 1992 scaup numbers have declined substantially on the MWI for Connecticut waters (Figure 5). The birds have almost completely disappeared from waters west of Milford, slightly increased east of Madison, and have been somewhat stable between Milford and Madison. Observations during the winters of 1991-92 and 1992-93 revealed some use of waters in the Greenwich and Norwalk areas. Most (70% - 98%) scaup wintering in Connecticut are thought to be Greaters as indicated by CBCs, historical references, and wings of birds taken by hunters (Carney et al. 1975, 1983; Cronan 1957; Merola and Chasko 1989), as well as our own observations and specimens (N=548 for 1991-93 with 90% Greaters). Lessers occasionally may be a larger portion of the total number of scaup, depending on weather conditions and other factors (Barclay unpubl. data, Billard and Humphrey 1972; CBCs). In general, the decline appears to have been primarily the result of losses of Greater rather than Lesser Scaup. The entire set of MWI data do not indicate a major increase in Greater Scaup elsewhere in North America. Such birds might be overlooked, especially along the Canadian border, but available Canadian Wildlife Service and USFWS harvest and mid-winter survey data have not supported such a possibility thus far.

Further Investigation

Because the decline of wintering scaup in Connecticut does not appear to be due to birds switching to a new wintering area, and the breeding population of strata 8-11 seems to show only a slight decline since 1955, other factors seem to be operating. Analysis of 5632 North American band recoveries of Greater Scaup show an increasing proportion of males (currently 4:1) over the past 20 or so years

(Walker, unpubl. report; USFWS unpubl. data). Our observations of flocks in Connecticut in the winters of 1991-92 and 1992-93 show overall sex ratios of Greater Scaup of approximately 2.3 males for every female (n=336 observations and/or flocks). Furthermore, our specimen collection from the same years shows a ratio of 2.6:1 (n=492). Billard and Humphrey (1972) reported a Long Island Sound ratio of 1.2 males to females collected (n=727). A sex ratio heavily favoring males has implications for breeding ground productivity, for the number of females able to produce eggs may be a more important limiting factor than the availability of males. For the related Canvasback (*Aythya valisineria*), male and female ducklings show a significant difference in survival with males surviving nearly twice as well as females during their first 25 days (K. Kenow, pers. comm.). The Greater Scaup banding recovery data include few recent recoveries of young birds, and our specimen collection from 1991-93 showed a ratio of 7.2:1 of older-to-hatching-year birds, as compared to a ratio of 1:1.38 reported in Bellrose (1976) for hunter's bags in 1966-73 and a ratio of 2.6:1 reported in Billard and Humphrey (1972) for Connecticut. This suggests several possibilities such as 1) production of young on the breeding ground is currently low, 2) many juvenile birds are not surviving, e.g., being harvested before they reach Connecticut, or 3) more juveniles are wintering farther west, perhaps on the Great Lakes where Zebra Mussels (*Driessena polymorpha*) are abundant and readily available as a food source in winter (Graham 1990; Hebert et al. 1991; Mitchell and Carlson 1993).

Scaup generally have fed on bottom organisms such as small clams, blue mussels, and snails. However, for 1987-89, Wahle's (1990) study of foods ingested by Greater and Lesser Scaup specimens donated by hunters indicated substantial changes in diet to foods, e.g., thick-shelled gastropods, plant matter such as *Ulva lactuca*, of apparently lesser nutritive value as compared with similar earlier studies by Hoehn (1976, unpubl.) and Cronan (1957) (Table 1). If this new diet affects the health of the birds, it might also affect winter survival and the breeding success of females. If some birds are in relatively poor condition, they might be more susceptible to adverse effects from contaminants. Presumably such susceptibility could affect not only reproductive performance but also behavior and overall health (Ohlendorf et al. 1986).

A pilot study of kidney and liver tissues from 23 hunter-donated Greater Scaup, 10 Lesser Scaup, three Surf Scoters (*Melanitta perspicillata*), and seven White-winged Scoters (*M. deglandi*) from 1987-88 revealed elevated levels of cadmium in many birds, particularly adult male Greater Scaup (Tables 2 and 3). Nickel, lead, and

chromium levels were also elevated in some birds, depending on location, date, and species (Barclay et al. in prep). At the observed levels, these metals may adversely affect reproduction (Burger et al. 1990) if the birds are nutritionally stressed (Ohlendorf et al. 1986). Laboratory analysis for this pilot study was conducted by the Connecticut Agricultural Experiment Station, Hamden, CT.

Current and Future Studies

The pilot study of contaminants was expanded in 1991-92 when tissues from 90 scaup carcasses were analyzed by the Environmental Research Institute, Storrs, CT, for nine different heavy metals as well as organochlorine pesticides and polychlorinated biphenyls (PCBs) (Barclay, unpubl. data). High levels of some metals, especially cadmium, selenium, and at times, in some specimens, mercury, lead, and arsenic, were found. PCBs were significantly ($p < .001$) elevated in the adult males of both species compared to females and the pesticide DDT plus metabolites DDE and DDD were high enough in all groups to be of concern.

The preliminary results of contaminant analyses in scaup tissues prompts serious and continued concern about pollution in Long Island Sound and elsewhere. One aspect of this continuing study concerns contaminants in these ducks, not only in tissue samples but also in foods ingested (such as in gizzard contents) as well as background levels in sediments and certain marine organisms. Another aspect involves comparison of external body measurements with the masses of the abdominal fat pad and the entire body, to establish indices representing the condition of scaup as an indication of the health of these birds. Also, identifying and characterizing requirements for winter habitat and documenting flocking behavior in winter are fundamental goals of this research.

Several investigators at the University of Connecticut are helping to process data, conduct library research, measure duck specimens, remove tissue samples, study gizzard contents, evaluate habitat, and collect sediment samples. Furthermore, many Connecticut hunters have donated scaup carcasses for study, and waterfowl enthusiasts in a network of observers dubbed "Scaupnet" have voluntarily participated in surveying winter flocks. This coordinated effort to record the numbers, movements, and behavior of both scaup species is especially important to determine the status of the Greater Scaup in Long Island Sound and to pinpoint essential winter habitats for them along the Atlantic Coast.

Banding and recovery data require additional study to confirm and expand on initial conclusions concerning the sex ratios of scaup, as

well as to glean any information on the status of scaup populations. A preliminary study has been initiated using existing data provided by the USFWS. Because Greater Scaup have not been banded in Connecticut since 1969, renewal of banding might provide new insights on the long distance and local movements of those birds that occur in Long Island Sound. We have begun fieldwork in Alaska and Canada to learn more about how and where Greater Scaup are acquiring contaminants.

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1. c/o Department of Natural Resources Management and Engineering, University of Connecticut, 1376 Storrs Road, Storrs, CT 06269-4087.

2. Present address: U.S. Fish and Wildlife Service, Patuxent Wildlife Research Center, Branch of Migratory Bird Research, Laurel, MD 20708.

Table 1. Percent volume composition of Greater Scaup diets comparing results of three studies conducted in coastal Connecticut waters since 1952 (from Cronan 1957, Hoehn 1976 (unpubl.), and Wahle 1990).

Study years (sample)	Percent of diet by volume					
	Bivalves	Gastropods	Mollusk Fragments	Crustaceans	Fish Eggs	Plant Matter
1952-54 (n=119)	56.4	6.1	26.6	4.5	0	6.6
1975-76 (n=311)	22.0	48.7	5.0	9.0	0	15.0
1987-89 (n=52)	18.4	32.9	20.4	3.9	2.8	21.5

Table 2. Mean concentrations in parts per million dry weight of four elements in the kidneys of scaup and scoters donated by hunters from five locations along coastal Connecticut, 1987-1988.

Species	Sample size	mean ± standard error, median			
		Pb	Cr	Ni	Cd
Greater Scaup	23	1.38 ± 0.52	1.85 ± 0.44	31.36 ± 7.47	13.55 ± 4.52
		0.40	0.81	16.09	3.85
Lesser Scaup	10	2.22 ± 1.03	1.55 ± 0.46	22.84 ± 7.00	7.49 ± 4.32
		0.40	0.82	9.72	1.02
Surf Scoter	3	9.56 ± 3.75	1.13 ± 0.12	5.36 ± 0.43	18.88 ± 7.23
		13.73	1.20	5.16	21.54
White-winged Scoter	7	1.02 ± 0.57	4.26 ± 3.06	3.73 ± 0.36	25.14 ± 7.45
		0.40	0.65	3.42	19.94

Table 3. Mean concentrations in parts per million dry weight of four elements in the livers of scaup and scoters donated by hunters from five locations along coastal Connecticut, 1987-1988.

Species	Sample size	mean, standard error, median Pb	Cr	Ni	Cd
Greater Scaup	23	0.81 ± 0.22	1.02 ± 0.23	15.35 ± 3.68	2.91 ± 1.09
		0.33	0.55	7.18	0.03
Lesser Scaup	10	11 ± 0.73	1.24 ± 0.36	19.16 ± 5.86	1.23 ± 0.77
		0.33	0.83	9.37	0.03
Surf Scoter	3	0.33 ± 00	.48 ± 0.17	4.98 ± 0.76	6.79 ± 2.49
		0.33	0.40	4.87	7.86
White-winged Scoter	7	1.21 ± 0.81	0.99 ± 0.23	3.85 ± 0.61	12.26 ± 3.44
		0.33	0.79	3.63	13.01

Scaupnet

There are plans to continue "Scaupnet" until June 1994, and volunteers are needed who are willing to fill out and mail in flock report forms/maps, which will be provided. If anyone is interested, they should call Graduate Research Asst. Matt Tomassone 486-0138 (office) or 684-6508 (home).

Figure 2. Scaup (both species) midwinter inventories and regression line for all U.S. and Canadian flyways, 1955-1988 (from USFWS data).

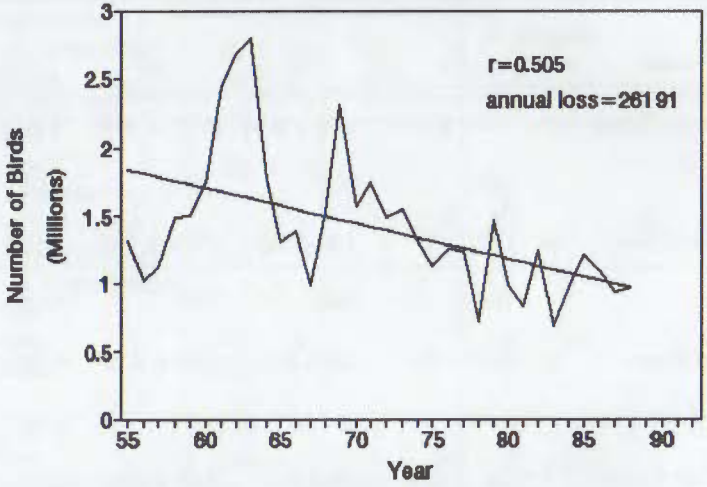


Figure 3. Scaup (both species) midwinter inventories and regression line for the Atlantic flyway, 1955-1992 (from USFWS data).

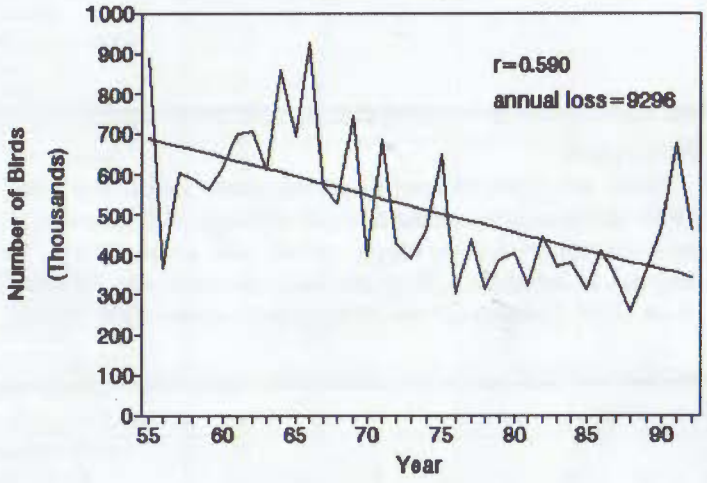


Figure 4. Scaup (both species) midwinter inventories and regression line for Massachusetts through New Jersey, 1955-1992 (from USFWS data).

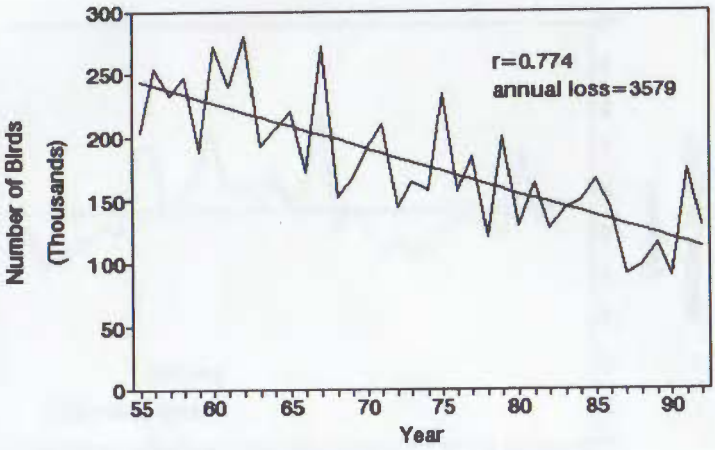


Figure 5. Scaup (both species) midwinter inventories and regression line for Connecticut, 1955-1992 (from USFWS data).

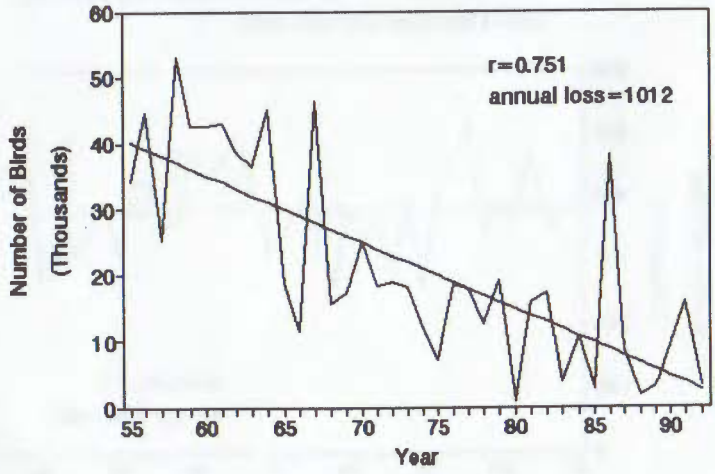


Figure 6. Scaup (both species) breeding population estimates and regression line for North America (continental, all strata), 1955-1992 (from USFWS data).

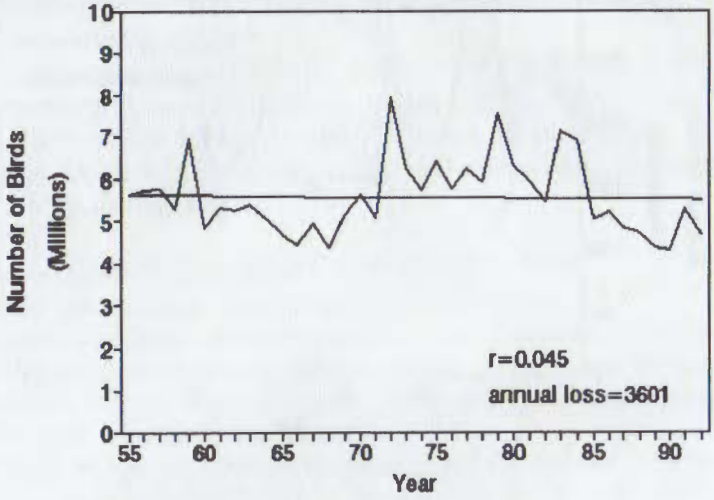
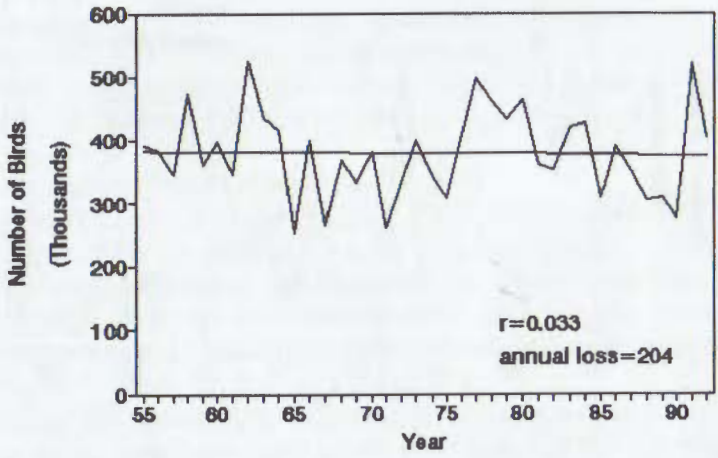


Figure 7. Scaup (both species) breeding population estimates and regression line for western Alaska (strata 8-11), 1955-1992 (from USFWS data).



CONNECTICUT FIELD NOTES
SPRING: MARCH 1 - MAY 31, 1993

Jay Kaplan

Editor's Comment: Rare or unusal bird species sighted in Connecticut (see COA Field List) require that documentation be submitted to the Secretary of the Rare Records Committee, if they are to be included in the Connecticut Field Notes.

This is the first seasonal report to be compiled using the new reporting forms. Contributors may be interested to know that this is the system that is now used in Massachusetts. As with any new venture, there is certain to be a "transition" period, and this is certainly the case with this new method of compiling data. Although many contributors have switched to the new report form, there remains a substantial number of birders using old forms or blank sheets of paper on which they are forwarding their observations. As a result, errors and omissions become more likely and the editors apologize for any glaring mistakes that may follow in this seasonal report. It is our hope that in the final analysis, the new report forms will make seasonal compilation easier and more accurate. Contributors who have concerns, questions, or suggestions with regard to this new system, should not hesitate to contact the author of this column or the editor of The Connecticut Warbler prior to the publication of the next issue. Packets of the new report forms are available by contacting the editor.

The spring season provided some early excitement as a "blizzard" March 13th dumped up to two feet of snow on coastal Connecticut, and three to four feet inland. Continued cold temperatures for the rest of the month left substantial snow on the ground through much of the interior of the state well into April. There was widespread concern over the status of such early migrants such as American Woodcock and American Robin, birds that found much of their food supply buried under the snow. It is likely that many perished. However, it should be understood that the advantage of early arrival on the breeding grounds carries the peril of just such weather conditions experienced this season. Birds that succumb in early spring storms are replaced by later migrants, and there were no shortages of woodcocks, phoebes or robins this year!

Precipitation for March was 6.67 inches in the Hartford area, over

2.5 inches above normal and a welcome change from the past few "dry" beginnings to the spring season. The early "heat-waves", so characteristic of the past few years, did not materialize as the thermometer did not exceed 60°F in the Hartford area until March 26. April was a delightful month with seasonable temperatures and rainfall about 0.70 inches over the norm. An unusual influx of overshoots from the south, including several Blue Grosbeaks and a Painted Bunting, occurred in mid April, apparently without the assistance of any strong weather systems. May was a dry month, with less than an inch of precipitation in the state. Hartford received 0.69 inches for the month compared with a normal 3.37 inches. Many observers described the spring migration as slow, particularly for warblers. Again, concerns over the fate of neotropical migrants echoed throughout the birding community as species such as Cape May Warbler were absent from many areas.

LOONS THROUGH WATERFOWL

Fourteen Red-throated Loons were at the mouth of the Connecticut River, Old Saybrook March 27 (DR et al.), and a late individual was at Compo Beach, Westport May 28 (FM), the only reports received this period. Common Loons were reported from many inland locations. There were also numerous Horned Grebes coastally, including a raft of 100 off Harkness Memorial State Park, Waterford March 3 (RSCB). There were scattered Red-necked Grebe reports from March into early April, all along the coast. Three adult Northern Gannets were off Griswold Point, Old Lyme March 9 (DP), the only report received and a far cry from the previous year's incursion into Long Island Sound.

There were numerous reports of overwintering American Bitterns and many of these birds continued into the spring at Hammonasset Beach State Park, Madison (hereafter HBSP) and Milford Point, Milford (m.ob.). Least Bitterns were at Station 43, South Windsor May 16 (JK et al.) and May 20 (DP), and at Lordship Marsh, Stratford May 21 (BD,EH). A pair of Tricolored Herons attempted nesting at a new heronry on Duck Island, Guilford (MB). It is likely that these birds were the source of numerous May sightings at nearby HBSP, the last May 19 (JG). Another report came from Barn Island Wildlife Management Area, Stonington May 23 (RBA). A Cattle Egret in Storrs April 30 (MS) was most unusual for northeast Connecticut. One was in Ledyard May 12 (RSCB) and another at Barn Island, Stonington May 16 (RSCB). Several were at Sherwood Island State Park, Westport (hereafter SISP) May 16

(JK et al.), with one remaining May 28 (RS). Apparently, the species did not nest in the State again this year, prompting questions from observers in Fairfield County. The Norwalk Island heronry is suffering, with no nesting at all on Chimon Island, possibly due to predation by raccoons and Great Horned Owls, and with reduced numbers on Grassy Island, where Double-crested Cormorants are taking over and killing the trees with guano (FM). There were numerous reports of Yellow-crowned Night Herons from Norwalk, Milford and Clinton (fide FM), as this species will nest away from waterbird colonies. Glossy Ibis evidently did not nest on the Norwalk Islands this season (FM); however, a new site was discovered on Duck Island, Guilford (MB).

Large aggregations of Brant included 1000+ in Bridgeport (BD et al.) and 800+ at Manresa Marsh, Norwalk May 21 (EH). A drake Eurasian Wigeon remained in the West Haven area through March 28 (RE,DP). A drake Redhead was at the West Haven Boat Ramp, West Haven March 2-6 (LA,MA), while three birds remained in Smith's Cove on the Thames River, Waterford until March 7 (DP). Ring-necked Ducks peaked at 65 at Konold's Pond, Woodbridge March 27 (AB). The drake Tufted Duck, present for a second consecutive winter in Greenwich, remained until March 17 (BO). A sub-adult male King Eider was off the Clinton breakwater, Clinton May 25-26 (GH,JG et al.). This species is a rare migrant in Long Island Sound and there are also seven summer records (Zeranski & Baptist 1990), thus requiring a second look at sea ducks during the "off-season." A pair of Barrow's Goldeneye, rarely found after mid-winter, was at SISP March 1 (RR), with the male relocated in the area March 10 (CB).

VULTURES THROUGH ALCIDS

Black Vulture reports continue from the Housatonic Valley region, often in the company of Turkey Vultures. Individuals were in Kent April 26 (GH) and May 15 (TM). Great Island, Old Lyme remains the hub of Connecticut Osprey activity with 20-30, most on territory, present April 5-14 (BD,DP et al.). Bald Eagles nested in Barkhamsted for the second consecutive year, producing one chick. There was great excitement surrounding this event, and more so over the introduction of a second, captive-bred chick from Massachusetts into the nest. An additional adult "helper" also appeared on the scene, giving rise to speculation that formation of a second pair-bond might be possible in the future. A great deal of publicity has surrounded the activities of these birds. It should be noted that the nest site is off limits to the public and happily, to this point,

there has been no harassment of the eagles from birders or others attempting to view the nest. An immature Bald Eagle at SISP May 28 (RS) was a late date for eagles along the coast. A Sharp-shinned Hawk was in Simsbury May 11 (BKr) and two birds were on territory in separate locations in Litchfield's White Memorial Foundation May 16 (BD). When will Connecticut host its first Peregrine Falcon nest since the late 1940's? Perhaps the time grows near. The female Peregrine frequenting downtown Stamford last winter was joined by a male in April (fide FM). Courtship displays ensued, but roof maintenance workers atop the Marriott Hotel apparently were enough of a disturbance to prevent any further developments. Meanwhile, the Hartford area also hosted Peregrines (m.ob.), and a male was atop the Traveller's Tower (site of the last successful Peregrine nesting) May 31st (SMi).

American Coot sightings, uncommon in late winter and early spring in Connecticut, included birds on Lake Zoar, Southbury March 1-7 (NC,RN), on the Naugatuck River, Waterbury March 20 (JB,BD) and two birds on the Housatonic River, Southbury March 6 (BD,MS). Lesser Golden Plover, an uncommon spring migrant, was at HBSP March 31 (DP) and at Bluff Point, Groton May 12 (DP). Two American Oystercatchers were at SISP, an unusual location for this species, May 21 (RS et al.), while another was at Milford Point May 31 (JY). A Whimbrel at Milford Point marsh May 20 (FM et al.) was the only one reported this period. An Upland Sandpiper was at HBSP April 30 (JG). American Woodcock were hard-hit by the March blizzard with many birds brought to nature centers in Fairfield County (FM et al.). Woodcocks were observed in their usual haunts later in the period, demonstrating that early migrants lost in late winter storms are replaced by birds that migrate later in the season.

A Common Black-headed Gull remained in Cos Cob Harbor until at least March 1 (BO et al.). There were no reports received for Little or Common Black-headed Gulls in West Haven this season, but an immature Iceland Gull was at Bradley Point, West Haven March 28 (SMa). An apparent Herring Gull X Ring-billed Gull was at Southbury Training School, Southbury March 1 - April 15 (RN). This bird has wintered with Ring-billed Gulls in this location for the past three years. Unusually plumaged gulls must be carefully studied at any season. Hybrids and accidentals must both be considered prior to making a tentative identification and photographs are always extremely beneficial in filing a report with the Connecticut Rare Records Committee. Other interesting gulls included an adult Lesser Black-backed Gull May 5

(CB) and a very late Glaucous Gull May 28 (RS), both at SISP, Westport.

Caspian Terns were at SISP May 4 and 15 (RS,CW et al.) and at Milford Point May 15 (JH et al.). Royal Terns were at Milford Point May 12 (BR) and May 25 (SMa). A first year Forster's Tern was in Old Saybrook April 18-19 (LB). With numerous Razorbills reported in Massachusetts last winter, a March 7 sighting of this species at Griswold Point March 7 (DP) certainly is plausible. Although there are numerous sight records, the lack of specimens or photographic evidence relegates this species to the "hypothetical" list in Connecticut. A written report has been forwarded to the CRRC.

OWLS THROUGH WARBLERS

A Barn Owl, probably one-half of the pair that wintered at Manresa Power Plant, Norwalk remained until May 18 (FM). Of the four Long-eared Owls reported at Greenwich Point last winter, the number gradually dwindled through March with the last one reported March 26 (BO). Short-eared Owls were at HBSP April 3 and 7 (JG) and at Griswold Point, Old Lyme April 5 (DP). Northern Saw-whet Owls included one at Shade Swamp Sanctuary, Farmington March 3 (BD) and two in Southbury March 7 (BD, JG et al.). A Saw-whet Owl returned to the spruce bog in Mohawk State Forest, Cornwall where it could be heard singing until at least May 16 (m.ob.) and may have nested. It goes without saying that the use of tape recorders as a means of observing such birds on their breeding grounds can be detrimental to nesting success. An extremely early Common Nighthawk was in Mansfield April 15 (MS), while another early migrant was in Barkhamsted April 30 (BKn). Nighthawks usually migrate in the latter half of May, and the 80+ seen at Litchfield's White Memorial Foundation May 23 (BD) conforms to the expected pattern for this species. Several observers report that Whip-poor-wills were not found at their usual sites this spring, fueling concern of a further decline of this species in the state. A Whip-poor-will was in Glastonbury April 30 (IH), and birds were on territory in Naugatuck State Forest, Waterbury May 12 (BD), in North Stonington May 22 (DP) and in their usual stronghold in the Burlington-New Hartford area, where several pairs were calling May 16 (JK et al.).

Two very early Ruby-throated Hummingbirds were in Mansfield April 20 (MS). One wonders what the birds were feeding upon at this early date. An adult Red-headed Woodpecker was reported in South Norwalk March 25 (fide FM). Olive-sided Flycatchers were in Goshen (JK et al.) and Litchfield

(RB) May 16, with 3-5 birds in Litchfield May 22 (NC et al.). Yellow-bellied Flycatchers were in Kent May 10 (SK), Litchfield May 21 (EH at al.) and Granby May 29 (BD). Acadian Flycatchers continue to increase in northwestern Connecticut with numerous sightings over a wide area.

A Horned Lark at Sikorsky Airport, Stratford May 18 and 20 (FM) may have indicated nesting activity. A new Common Raven nest site, discovered in Beacon Falls in May (BD) is the southernmost extension of this species' range in Connecticut. A report of a Mountain Bluebird in Southbury March 3 sent birders scurrying to western Connecticut in hopes of adding a new state record to their lists. Closer inspection of such features as wing length, a yellow bill and legs, and call notes, led birders to reach a consensus and identify the bird as a leucistic Eastern Bluebird. A late American Pipit was in Stamford's Cove Island Park May 20 (FM et al.).

Birders continue to lament the lack of "spring warbler waves" in Connecticut. In fact, there were several troublesome reports on the warbler watch this season. Several birders expressed concern that the Golden-winged Warbler population along Kent's River Road was decreasing. Golden-winged Warblers do hybridize with Blue-winged Warblers and at least one Golden-winged Warbler was singing an aberrant song this spring. Birders might consider watching for and reporting the hybrid "Lawrence's" and "Brewster's" Warblers that can result from such unions. A singing male Yellow-throated Warbler returned to River Road April 30 (NC) and sang through May, but there were no reports of a female this spring. Other warbler reports of note included a male Prothonotary Warbler at Larsen Sanctuary, Fairfield April 30 (JF,JY et al.), a Kentucky Warbler at Fairchild Gardens, Greenwich May 6-31 (m.ob.), and Mourning Warblers at Fairchild Garden May 15-17 (BO et al.) and SISP May 23 (RS). Yellow-breasted Chats were in Woodbury May 17-21 (CW) and Watertown May 21-23 (EH,BD).

TANAGER THROUGH EVENING GROSBEAK

Early arrivals included Scarlet Tanager and Rose-breasted Grosbeak at SISP April 17 (RW), the earliest Connecticut spring date for both species. Even more unusual were at least four reported Blue Grosbeaks in the Guilford-Madison area April 11-12 (m.ob.). One male in Guilford remained until at least April 28 (NC). Additional sightings of this species came from Ansonia April 24 (BD,TK) and Storrs May 9 (Dale Wierzbicki,JM et al.). This April 11 overshoot was also, no doubt, responsible for the Indigo Buntings sighted throughout southern New England and Long Is-

land during this period (FM), including a bird photographed in Willington (Fred Lipschultz, Fide LB,GC). A **Painted Bunting** was reported to have spent Easter Sunday at a residential feeder in Waterford April 11 (fide BD,JH). What makes this incursion most interesting is that it did not appear to be the result of any major weather systems!

Grasshopper Sparrows continue to nest at Bradley International Airport, Windsor Locks; however, several observers expressed concerns that the population had declined. Snow Buntings were still in residence in Westport in early March with 60 at Compo Beach March 5 and 40 at SISP March 12 (FM). A **Boat-tailed Grackle** was photographed in Greenwich March 31 (PD) and another was at HBSP May 12 (JG). Several years ago, some birders anticipated an increase in "big grackle" reports; however, this has not been the case.

Connecticut has not been flush with winter finches for several years. So, a Pine Siskin at a Torrington feeder April 26 (RB) was surprising. More so were two Evening Grosbeaks in the Nepaug section of Burlington May 16 (PC).

CONTRIBUTORS (Boldface) and OBSERVERS:

L & M Aimsbury, **Ralph Amodei, Jim Bair, Robert Barbieri, Charles Barnard, Louis Bevier, Andy Brand,** Milan Bull, Paul Carrier, **George Clark,** Connecticut Department of Environmental Protection, Connecticut Rare Bird Alert(RBA), Neil Currie, **Buzz Devine,** Bob Dewire, Pat Dugan, **Carl Ekroth, Richard English, Jeff Fengler, John Gaskell, Ed Hagen,** Jay Hand, **Greg Hanisek, Isabel Higgins, Jay Kaplan,** Tom Kilroy, **Betty Kleiner** (BKr), Brian Kleinman (BKn), **Steve Kotchko, Frank Mantlik, Steve Mayo** (SMa), John McDonald, Todd McGrath, **Stuart Mitchell** (SMi), **Russ Naylor, Brian O'Toole, David Provencher, Records of Southeastern Connecticut Birds,** Robert Ridgely, Bill Root, **Dave Rosgen, Richard Soffer,** Mark Szantyr, Rob Winkler, **Chris Wood, Jeff Young.**

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71 Gracey Rd., Canton, CT 06019

Answer to Photo Challenge 6

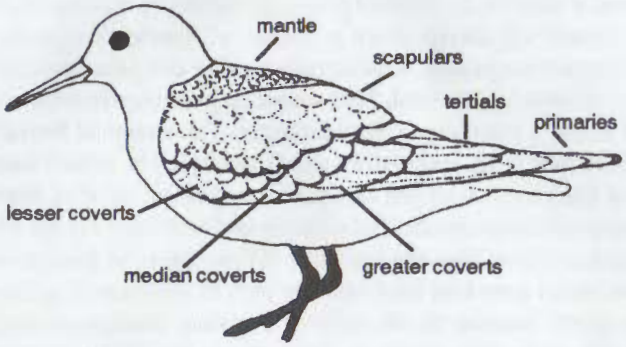
Our July photograph shows a bird standing in a horizontal stance on the muddy shores of a small patch of water. Its short neck and long, slender bill with a drop of water at the tip clearly identify this as a sandpiper. These ground-dwelling birds use their bills as probes and forceps to extract small worms and other invertebrates from soft ground. The several smaller species with subtly patterned gray and brown upperparts, such as our bird, present many identification challenges.

Shape and structure are important features to assess for all shorebirds. Such characters can quickly narrow the species under consideration without at first having to judge subtle plumage differences. These structural features should be obvious and easily described as opposed to the many subtle and overlapping shape differences (e.g., bill shapes) that have been described for these small waders.

Looking at the rear of our bird, we see long wings *clearly* extending beyond the tip of the tail. This character together with the horizontal stance and short legs are now accepted as features shared only by White-rumped and Baird's sandpipers. At a distance, these two species appear similar to but slightly larger than other small shorebirds such as Semipalmated, Western, and Least sandpipers, or slightly smaller than Dunlin and Pectoral Sandpiper.

Although a close-up photograph is terrific for narrowing the possibilities to the two most likely species, it precludes our getting a

look at the rump. It is not always possible, or desirable, to flush birds, so one should have other means to identify a resting bird. Baird's Sandpipers usually forage on dry mud or short grass unlike the habitat shown in the photograph. Nevertheless, before we call this a White-rumped Sandpiper, we should look for something more definitive.



One of the advantages of close-up photographs is that small details can be studied carefully. So, look closely at the bill. In all ages of White-rumped Sandpiper the base of the lower mandible shows an orange-brown patch. Our bird's bill appears all black, which would favor Baird's Sandpiper. Sometimes, however, the pale area at the base of the bill is absent or obscured by dark mud. Could this be the case with our bird? To confirm the identification we need a bit more information.

Identification of the small sandpipers is facilitated further by a basic understanding of the seasonal plumages, molt, and arrangement of feather groups. To help identify features of the upperparts, I have drawn an outline of our bird and labeled the important feather groups. It should be noted that the scapulars often lie over most of the wing coverts when sandpipers are at rest. For our purposes, there are three plumages that are commonly seen and important to learn—breeding, winter, and juvenile (alternate, basic, and juvenal plumages in standard terminology). The upperparts of our bird show a rather uniform pattern of rounded, pale-fringed, freshly acquired feathers. This is typical of juveniles.

(A good general discussion of the plumages, molt, and feather groups is given in *The New Approach to Identification* [1989] by Peter Grant and Killian Mullarney; the details and variations specific to shorebirds are well covered in the British banding manual *Guide to the Identification and Ageing of Holarctic Waders* [1977] by Tony Prater and

John Marchant and in a chapter by Ralph Palmer in *The Shorebirds of North America* [1967].)

There are several plumage characters that separate Baird's and White-rumped sandpipers. Look at the face pattern. White-rumped Sandpipers have a well-defined whitish eyebrow (supercillium) set-off by the ear coverts and blackish lores (the feathers between the eye and the bill). Our bird shows a rather "beady" eye in a blank face. This is typical of Baird's. In juvenal plumage White-rumpeds, the margins of the *mantle* regularly show a *white 'V'* contrasting with rufous fringed upper scapulars. This is quite unlike the pale-tipped blackish feathers shown on our bird. This scaled appearance is most characteristic of Baird's Sandpiper. Interestingly, the rump of Baird's Sandpiper is darker than most other small sandpipers, which have much white at the margins of the rump and uppertail coverts; these white feathers sometimes are fluffed outside of the folded wings and cause observers to think that the bird is a White-rumped Sandpiper.

If we could hear this bird call, we would hear a soft, guttural, and rolling 'grrrt' similar to the calls of Pectoral Sandpiper and totally unlike the high, thin 'zeet' or 'jeet' given by White-rumped. This juvenile Baird's Sandpiper was photographed by Bob Hefler in Ventura, California, on 5 September 1990. Baird's Sandpipers are rare migrants to Connecticut only in fall.

Louis R. Bevier

Photo Challenge 7. Identify the species. Answer next issue

THE CONNECTICUT WARBLER

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5 Flintlock Ridge, Simsbury 06070

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