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The Passenger Pigeon

Spring 1971
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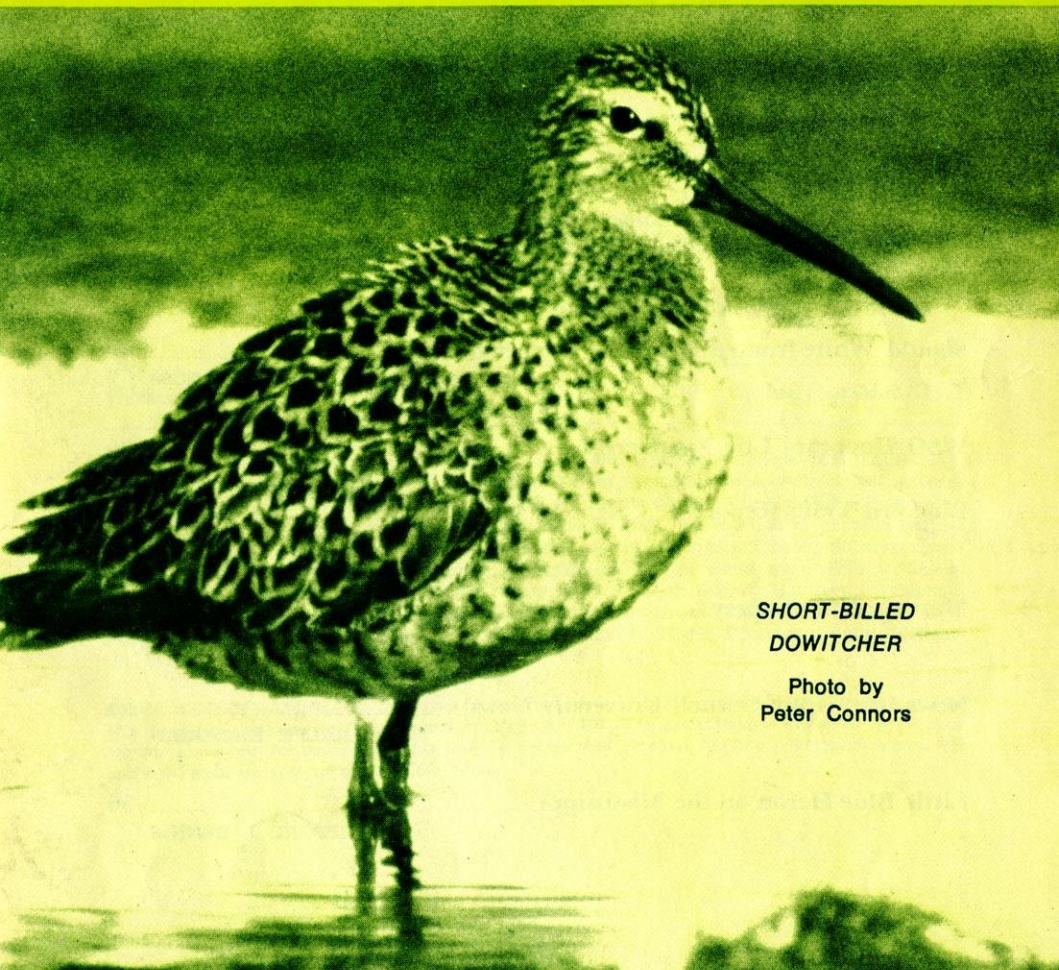

SHORT-BILLED DOWITCHER

Photo by
Peter Connors

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COVER PICTURE—Short-billed Dowitcher photographed by Peter G. Connors at a flooded border of a field near Westport in Dane County on May 16, 1970. The photographer crouched in the mud alongside the bird for several minutes while it bathed and preened. As the photograph shows, the bird's feathers are still ruffled from the bath.

The 1970 Wisconsin Christmas Bird Count

By WILLIAM L. HILSENHOFF

The 1970 Christmas Bird Counts were among the best in Wisconsin's history, but the 124 species that were seen fell short of the totals seen in 1965, 1966, and 1969. It is interesting to note, however, that before 111 species were found in 1952, no Christmas Count had produced more than 94 species. Since 1952 more than 100 species have been seen every year, and in five of the last six years, the total number of species has surpassed 120. This is a tribute to W.S.O. members who have organized more and better counts. In 1970 there were 639 observers on 61 counts, all but five of these being repeats of counts made last year. The only new count was the Lakewood Count in Oconto County. The counts at Necedah and Ellsworth were repeats of counts made in 1968, while the count on Washington Island was last made in 1965. A count in the Portage area was the first since 1961.

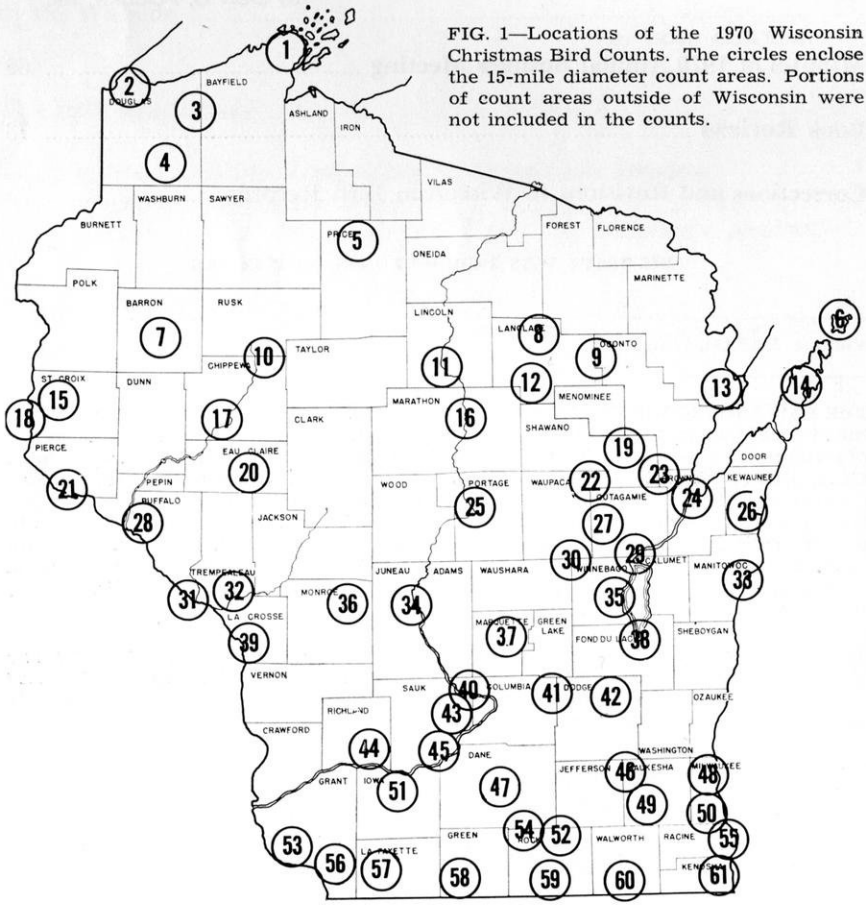

FIG. 1—Locations of the 1970 Wisconsin Christmas Bird Counts. The circles enclose the 15-mile diameter count areas. Portions of count areas outside of Wisconsin were not included in the counts.

The results of some counts were not included because they did not conform to the regulations or duplicated other counts. They were included only as "birds seen during the count period but not on the day of the count." The count at Sprague by Donn and Rena Stout duplicated the Necedah Count, the latter being used because more species were seen. Counts at Black River Falls and in Vernon County were not made on a single day, and counts at Evansville, Price County, Green Lake County, and northeast Marquette County were not the specified length of at least 6 hours. The Manitowoc Count was taken after the prescribed count period, but was included.

For the first time in many years the Madison Count did not report the most species. This honor went to Appleton where 66 species were observed. Close behind were Milwaukee (65 species), Madison (62 species), and Hales Corners and Lake Geneva (60 species). Only 16 counts reported 40 or more species, and 10 counts, mostly in the northern third of the state, failed to find 20 species. The excellent snow cover throughout the state should have helped observers by driving birds to feeders and roadsides, but strong winds on several of the counts and the cold mid-December temperatures that froze most of the lakes kept down the numbers of birds that were observed.

The highlights of the 1970 Christmas Counts were the Mute Swans at Racine, Common Scoters at Hales Corners, a Ferruginous Hawk at Lake Geneva, and an Iceland Gull at Bayfield. All were new records for Wisconsin Christmas Counts. A Hawk Owl observed at Shawano was only the second ever seen on Christmas Counts in Wisconsin. The Red-throated Loon at Milwaukee was the first observed since 1964. The Common Loons at Milwaukee and Lake Geneva, the Black-crowned Night Herons at Appleton and Fremont, and the Whistling Swans at LaCrosse were the first observations since 1965, and the Vesper Sparrow at Lake Geneva was the first recorded since 1966.

When the 1970 count was compared with recent counts, 20 species were found to have occurred on a higher percentage of counts than in any of the 10 previous years. These species were the Pied-billed Grebe, Mallard, Black Duck, Hooded Merganser, Red-breasted Merganser, Red-tailed Hawk, Rough-legged Hawk, Bald Eagle, Sparrow Hawk, Gray Partridge, Common Snipe, Mourning Dove, Screech Owl, Great Horned Owl, Belted Kingfisher, Hairy Woodpecker, White-breasted Nuthatch,

Northern Shrike, Brown-headed Cowbird, and Cardinal. The elimination of some small counts by the 6-hour time restriction may have been responsible for apparent increases in distribution of some of the more Common birds, but other species such as the Rough-legged Hawk, Sparrow Hawk, Mourning Dove, and Northern Shrike were definitely much more widespread and common than usual. In contrast, the Cooper's Hawk, Boreal Chickadee, Cedar Waxwing, Rusty Blackbird, Pine Grosbeak and Fox Sparrow were found on a lower percentage of counts than at any time in the last 10 years.

The counts are again numbered from north to south (figure 1), the circles representing the 15-mile diameter count areas. There were only two overlapping counts. The two counts at Green Bay were combined, and the Sprague Count was added to the Necedah Count as birds seen during the period but not on the day of the count. The results of the counts are summarized in tables 1 and 2, and the observers listed in table 3.

It is difficult to characterize the 1970 Christmas Counts. There were no spectacular invasions, and only a few species were conspicuously absent. Most species seemed to appear in about normal numbers, and their occurrence is best summarized as follows:

Waterfowl — Most species were about as widespread as usual, but numbers were down in some areas, probably because of the frozen lakes. Although Mallards, Black Ducks, Hooded Mergansers, and Red-breasted Mergansers were found on a higher percentage of counts than usual, none were present in above normal numbers. The 6 Gadwalls at Madison and 20 Blue-winged Teal at Green Bay were unusual records.

Hawks and Owls — 1970 was an excellent year for both Hawks and Owls. Rough-legged Hawks were more abundant than usual and were distributed unusually far north (table 1). Bald Eagles were more common than ever before, occurring on 25% of the counts, and Sparrow Hawks were also more abundant and widespread than on any previous count. Except for Cooper's Hawks and Marsh Hawks, all other common hawks were sighted in above normal numbers. Owls, too, were unusually common. Screech Owls and Great Horned Owls were especially common, perhaps reflecting the starting of more counts before daybreak. Only the Snowy Owl appeared in below normal numbers.

Pheasants, Grouse, etc. — 'The snow cover greatly aided observations of pheasants, which were seen in unprecedented numbers. The appearance of the Gray Partridge on a record percentage of counts indicates an increase in their abundance and distribution. This year Gray Partridges were observed north to Washington Island and Shawano, northwest to Stevens Point, and southwest to Beetown and Darlington.

Woodpeckers — Most species were found in about average numbers. After appearing in exceptional numbers last year, winter populations of Red-headed Woodpeckers and Yellow-shafted Flickers returned to normal.

Jays, Nuthatches, Chickadees, etc. — Blue Jay, Black-capped Chickadee, White-breasted Nuthatch, Common Crow, and Brown Creeper were normal. The Tufted Titmouse was found as far north as Antigo and

New Richmond, but numbers in the southern counties remained well down from 2 to 4 years ago. After an invasion last year, numbers of the Red-breasted Nuthatch were back to normal. The sighting of 423 Common Ravens at Brule was exceptional.

Waxwings – Wintering Cedar Waxwings were unusually scarce, and Bohemian Waxwings were completely absent.

Blackbirds – Although found on a normal percentage of counts, numbers of Red-winged Blackbirds were way below normal, and, with the exception of the Common Grackle, numbers of other blackbirds were also below normal. Brown-headed Cowbirds, although observed on an abnormally high percentage of counts, were not found in large numbers.

Finches – There was an excellent invasion of Evening Grosbeaks into the northern counties (table 1), but only scattered small flocks reached the southern counties. Pine Grosbeaks were found on only 2 counts, Red Crossbills on 1 count, and White-winged Crossbills not at all. Pine Siskins and Common Redpolls occurred in meager numbers, and were most prevalent in the central part of the state. Goldfinches were very common in the southern two-thirds of the state, and Purple Finches appeared in about normal numbers.

Sparrows – Winter populations of most species were about normal. Below-normal numbers of Slate-colored Juncos and Tree Sparrows and above-normal numbers of Song Sparrows were exceptions.

Other Species – Mourning Doves were found in unprecedented numbers and appeared on many counts in the northern counties. Belted Kingfishers also were sighted in unprecedented numbers, but observations were confined to the southern two-thirds of the state. The invasion of Northern Shrikes surpassed last year's invasion and was the best since 1956.

In addition to the species reported in tables 1 and 2, there were five hypothetical observations. A Barn Owl was reported from Oshkosh, but the bird was seen only in flight and the documentation was insufficient. Lincoln's Sparrows were reported from Milton, but the habitat in which they were found was atypical and the possibility of immature Swamp Sparrows had not been considered when the observation was made. A Harlan's Hawk, a Pigeon Hawk, and 6 Savannah Sparrows were recorded at Beetown, but none of these were included because documentation could not be obtained.

Some other species were seen during the count period, but not on a bona fide count. An Osprey was seen at Hudson on the day before the count, but could not be found the next day. A Black-backed Woodpecker was sighted by Bernard Kasierski in the Princeton High School Forest on December 29, but could not be included because the count was for only a 3-hour period. A Bluebird and a Mockingbird were seen in Vernon County during the period by Viratine Weber, and a Golden Eagle was observed during the period at Ellsworth.

The 1970 Wisconsin Christmas Count is history, but if we look forward to next year and make our plans early, we should be able to improve most of the counts. Additional observers are needed on the existing counts, and new counts, especially in the northern counties, are always welcome.

TABLE 2 — BIRDS SEEN ON LESS THAN 20 COUNTS

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Common Loon	2	2	Milwaukee 1, Lake Geneva 1
Red-throated Loon	1	1	Milwaukee 1
Pied-billed Grebe	4	8	Green Bay 2, Oshkosh 1, Milton 1, Lake Geneva 4
Great Blue Heron	2	2	Hudson 1, Fountain City 1
Bl.-cr. Night Heron	2	2	Appleton 1, Fremont 1
Mute Swan	1	2	Racine 2
Whistling Swan	1	8	LaCrosse 8
Canada Goose	8	732	Wausau 7, Green Bay 470, (Shiocton), Manitowoc 3, LaCrosse 7, (Oconomowoc), Waukesha 3, Racine 240, Beloit 1, Lake Geneva 1
Snow Goose	1	1	Appleton 1
Blue Goose	1	1	Green Bay 1
Gadwall	3	69	(Oconomowoc), Madison 66, Milwaukee 2, Lake Geneva 1
American Pintail	2	3	Green Bay 1, Appleton 1
Green-winged Teal	1	3	Shawano 3
Blue-winged Teal	2	21	Green Bay 20, Appleton 1
American Widgeon	2	2	Stevens Point 1, Hales Corners 1
Shoveler	1	2	Madison 2
Wood Duck	4	8	Hudson 1, Appleton 4, LaCrosse 2, Hales Corners 1
Redhead	6	13	Washington Island 3, Green Bay 2, Appleton 5, Milwaukee 1, Hales Corners 1, Lake Geneva 1
Ring-necked Duck	2	7	Appleton 1, Lake Geneva 6
Canvasback	6	33	Washington Island 2, Wausau 1, Appleton 1, Madison 2, Milwaukee 9, Lake Geneva 18
Greater Scaup Duck	7	1765	Green Bay 30, Manitowoc 19, Milwaukee 1058, Hales Corners 651, Racine 5, Lake Geneva 1, Kenosha 1
Lesser Scaup Duck	6	60	Brule 1, Green Bay 45, Appleton 10, Milwaukee 1, Hales Corners 1, Lake Geneva 2
Bufflehead	7	397	Washington Island 4, Ephraim 1, Hudson 2, Sauk City 1, Milwaukee 45, Hales Corners 119, Racine 225
Oldsquaw	7	9645	Washington Island 2, Ephraim 1, Manitowoc 277, Milwaukee 2390, Hales Corners 3740, Racine 2965, Kenosha 1170
White-winged Scoter	3	9	Manitowoc 1, Milwaukee 3, Hales Corners 5
Common Scoter	1	6	Hales Corners 6
Ruddy Duck	3	5	Green Bay 2, (Appleton), Madison 1, Lake Geneva 2

Table 2 — Continued

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Hooded Merganser	6	15	Chippewa Falls 1, Green Bay 2, Madison 2 Milwaukee 1, Hales Corners 1, Lake Geneva 8
Common Merganser	14	223	Washington Island 16, Ephraim 6, (Shawano), Green Bay 7, Kewaunee 13, Appleton 18, Manitowoc 32, Necedah 23, Sauk City 35, Madison 30, Milwaukee 3, Hales Corners 1, Racine 18, Lake Geneva 20, Kenosha 1
Red-br. Merganser	9	62	Washington Island 2, Peshtigo 1, Manitowoc 3, Madison 10, Milwaukee 14, Hales Corners 8, Racine 20, Lake Geneva 2, Kenosha 2
Goshawk	3	3	(Superior), Summit Lake 1, (Hudson), (Green Bay), Marquette Co. 1, Madison 1
Sharp-shinned Hawk	7	10	Solon Springs 3, New Richmond 2, Wausau 1, (Stevens Point), Shiocton 1, Alma 1, Manitowoc 1, (Oconomowoc), Madison 1
Cooper's Hawk	6	8	Hudson 1, Alma 2, Appleton 1, Fountain City 1, (Fond du Lac), Oconomowoc 2, (Waukesha), Lake Geneva 1
Red-shouldered Hawk	8	13	New Richmond 2, (Wausau), (Shawano), Shiocton 1, Oshkosh 1, Horicon 2, Richland Center 1, Hales Corners 1, Beetown 4, Beloit 1
Ferruginous Hawk	1	1	Lake Geneva 1
Bald Eagle	15	221	Bayfield 1, Brule 4, (Fifield), (Summit Lake), Antigo 1, (Wausau), Hudson 1, Shawano 1, Ellsworth 12, Stevens Point 2, Alma 40, Fountain City 3, Galesville 17, Necedah 30, LaCrosse 5, Baraboo 1, Sauk City 27, Beetown 76
Marsh Hawk	8	13	Shawano 2, Pulaski 1, Green Bay 1, Appleton 1, (Necedah), Oshkosh 3, Tomah 1, Waukesha 3, Beloit 1
Sharp-tailed Grouse	1	2	Antigo 2
Bobwhite	8	97	Hudson 3, Alma 3, Fountain City 16, Oshkosh 8, Marquette Co. 3, LaCrosse 14, Richland Center 19, Sauk City 31
Turkey	1	2	Necedah 2
American Coot	9	737	Ephraim 1, Hudson 1, (Green Bay), Appleton 2, LaCrosse 1, Oconomowoc 63, Madison 509, Hales Corners 1, Cooksville 1, Lake Geneva 158
Killdeer	1	1	Cornelia 1
Common Snipe	10	23	Hudson 1, Fountain City 3, Galesville 1, Marquette Co. 2, LaCrosse 1, Richland Center 6, Sauk City 2, Madison 2, Waukesha 3, Hales Corners 2

Table 2 – Continued

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Glaucous Gull	1	3	Bayfield 3, (Green Bay)
Iceland Gull	1	1	Bayfield 1
Herring Gull	19	5644	Bayfield 1255, Superior 36, Washington Island 1412, Peshtigo 191, Ephraim 63, (Wausau), Green Bay 30, Kewaunee 325, Appleton 21, Manitowoc 252, Sauk City 1, Madison 7, Milwaukee 573, Waukesha 10, Hales Corners 473, Milton 1, Racine 310, Beloit 5, Lake Geneva 56, Kenosha 623
Ring-billed Gull	6	277	(Green Bay), Manitowoc 6, Madison 3, Milwaukee 172, Hales Corners 80, Racine 8, Lake Geneva 8
Bonaparte's Gull	2	306	Milwaukee 6, Racine 300
Screech Owl	14	31	Hudson 2, August 1, Appleton 1, Galesville 1, LaCrosse 1, Randolph 4, Horicon 1, Madison 1, Milwaukee 1, Hales Corners 1, Racine 13, Beloit 1, Lake Geneva 1, Kenosha 2
Snowy Owl	4	14	Superior 2, (Washington Island), (Shawano), Green Bay 10, Appleton 1, Racine 1
Hawk Owl	1	1	Shawano 1
Barred Owl	15	27	New Richmond 2, Hudson 1, Shawano 1, Ellsworth 1, (Stevens Point), Shiocton 3, Alma 1, Appleton 3, Fremont 1, Galesville 4, Marquette Co. 1, LaCrosse 3, Baraboo 2, Sauk City 1, Madison 2, Cooksville 1
Long-eared Owl	9	31	Galesville 1, (LaCrosse), Oconomowoc 2, Madison 6, Milwaukee 2, Hales Corners 3, Clyde 2, Racine 12, Beloit 2, Kenosha 1
Short-eared Owl	7	30	Superior 1, New Richmond 4, (Manitowoc), LaCrosse 2, Hales Corners 2, Racine 16, Darlington 3, Kenosha 2
Yellow-sh. Flicker	13	39	Washington Island 1, Hudson 1, Clintonville 1, Stevens Point 1, Appleton 4, Fremont 8, Oshkosh 3, (LaCrosse), Richland Center 4, Sauk City 2, (Oconomowoc), Madison 3, Milwaukee 2, Hales Corners 3, (Beloit), Lake Geneva 6
Pileated Woodpecker	17	52	Bayfield 2, Brule 2, Washington Island 1, (Summit Lake), Antigo 1, Ephraim 1, Wausau 1, Chippewa Falls 2, Hudson 4, Shawano 2, Ellsworth 4, Alma 4, Galesville 5, LaCrosse 2, Baraboo 3, Richland Center 7, Sauk City 8, Clyde 3
Yel.-bel. Sapsucker	1	2	Hales Corners 2

Table 2 — Continued

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Gray Jay	3	5	Fifield 2, Summit Lake 2, Antigo 1, (Shawano)
Common Raven	11	558	Bayfield 21, Superior 4, Brule 423, Solon Springs 32, Field 29, Washington Island 7, (Barron), Summit Lake 14, Lakewood 17, Antigo 8, Peshtigo 2, Augusta 1
Boreal Chickadee	2	11	Summit Lake 3, Antigo 8
Winter Wren	2	2	(Oconomowoc), Madison 1, Hales Corners 1
Catbird	3	3	Madison 1, Hales Corners 1, Lake Geneva 1
Brown Thrasher	9	11	Washington Island 1, Ephraim 1, (Wausau), Stevens Point 2, (Kewaunee), Appleton 1, Oconomowoc 1, Milwaukee 2, Racine 2, Beloit 1, Kenosha 1
Varied Thrush	1	1	Milwaukee 1
Hermit Thrush	1	1	Madison 1
Golden-cr. Kinglet	18	48	Summit Lake 1, Lakewood 2, New Richmond 3, Hudson 2, Ellsworth 2, Stevens Point 3, Shiocton 2, Appleton 8, Galesville 1, Oshkosh 4, Fond du Lac 3, Baraboo 1, Richland Center 1, Sauk City 8, Oconomowoc 2, Milwaukee 2, Waukesha 2, Hales Corners 1
Ruby-cr. Kinglet	2	2	Sauk City 1, Milwaukee 1
Cedar Waxwing	9	160	(Washington Island), Hudson 14, Appleton 55, Oshkosh 1, Sauk City 15, Milwaukee 36, Hales Corners 6, Racine 1, Cornelia 15, Kenosha 17
Meadowlark spp.	18	229	New Richmond 1, Green Bay 1, Alma 1, Appleton 5, (Manitowoc), Oshkosh 6, Fond du Lac 3, Randolph 8, Oconomowoc 1, Madison 1, Waukesha 1, Beetown 17, Cooksville 8, Cornelia 40, Darlington 118, Monroe 2, Beloit 9, Lake Geneva 6E, 1W
Rusty Blackbird	2	4	LaCrosse 3, Oconomowoc 1
Brewer's Blackbird	1	2	Oconomowoc 2
Brown-h. Cowbird	14	135	Hudson 1, Clintonville 1, Appleton 1, Fremont 8, Fountain City 1, LaCrosse 5, Portage 1, Horicon 63, (Oconomowoc), Madison 7, (Waukesha), Hales Corners 15, Milton 25, Racine 1, Beloit 1, Lake Geneva 5
Pine Grosbeak	2	4	Holcombe 1, Appleton 3

Table 2 — Continued

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Common Redpoll	13	199	Wausau 20, Ellsworth 75, Clintonville 1, (Green Bay), Stevens Point 15, Kewaunee 30, Shiocton 8, Appleton 2, Galesville 24, Manitowoc 1, Oshkosh 15, Marquette Co. 1, Fond du Lac 1, Waukesha 6
Pine Siskin	11	64	(Fifield), Wausau 12,, (Hudson), (Shawano), Clintonville 16, Stevens Point 3, Shiocton 3, Appleton 1, Galesville 10, Manitowoc 2, (Oshkosh), Fond du Lac 2, Horicon 2, Sauk City 4, Milwaukee 9
Red Crossbill	1	2	Hudson 2
Rufous-sided Towhee	2	2	(Washington Island), Appleton 1, Lake Geneva 1
Vesper Sparrow	1	1	Lake Geneva 1
Oregon Junco	18	40	(Washington Island), New Richmond 1, Hudson 1, Augusta 1, Clintonville 1, Stevens Point 3, Shiocton 1, Appleton 3, Fremont 3, Fountain City 1, Baraboo 1, Sauk City 1, Oconomowoc 1, Madison 3, Milwaukee 5, Waukesha 1, Hales Corners 8, Racine 3, Kenosha 2
Harris' Sparrow	1	1	Ellsworth 1
White-cr. Sparrow	2	2	Milwaukee 1, Racine 1
White-thr. Sparrow	11	31	Hudson 1, Shawano 4, Ellsworth 1, Stevens Point 1, Appleton 2, Galesville 1, Manitowoc 1, Madison 13, Milwaukee 3, Racine 3, Cornelia 1
Fox Sparrow	1	2	Fremont 2
Swamp Sparrow	8	16	Hudson 1, Appleton 2, LaCrosse 2, Oconomowoc 2, Madison 2, Waukesha 3, Beloit 3, Kenosha 1
Lapland Longspur	8	38	Hudson 2, Randolph 2, (Oconomowoc), Madison 1, Milton 1, Beetown 8, Darlington 12, Lake Geneva 6, Kenosha 6

*Parentheses indicate that the species was seen during the count period but not on the day of the count.

TABLE 3 — NAME OF COUNT, LOCATION OF COUNT (fig. 1), AND NAMES OF OBSERVERS.

Alma (28) — J. Bergstrom, P. Blanchard, K. Hillery, R. Irwin, J. Kemper, **C. Kemper,** D. Khrin, C. Larson, G. Willett.

Antigo (12) — Mr. & Mrs. E. Orthmann, B. Pickering, **L. Schimmels.**

Appleton (29) — M. Bowker, J. Brinkman, Mr. & Mrs. W. Burger, G. Clarke, Mrs. G. Defferding, M. Fisher, Mrs. R. Gear, **J. Green,** J. Gundlach, Mr. & Mrs. H. Hanson, Mrs. J. Huppler, Mrs. E. Jandrin, Mrs. B. Lipke, F. F. Martin, Mrs. C. Eathron, M. Morton, A. Mullen, Mrs. E. Natzke, R. Natzke, Mr. & Mrs. H. Pasch, Mrs. R. Pearson, Mr. & Mrs. C. Richter, G. Roehr, Mrs. M. Seeliger, Mr. & Mrs. W. Schuldes, Mrs. T. Smith, M. Steinberg, **D. Tessen,** Mr. & Mrs. F. Tessen, Mrs. A. Wakeman, Mrs. R. Ward, A. West, D. Wolfe, Mrs. W. Wright.

Augusta (20) — **S. Robbins.**

Table 3 — Continued

Baraboo (43) — W. Gasser, D. Hatz, M. Mossman, F. Rich, R. Rich, T. Rich, **R. Sauey,** G. Scott.

Barron (7) — E. Arndeell, G. Christianson, M. Jensen, I. Quam, E. McDonough.

Bayfield (1) — D. Bratley, **B. Klugow,** Mr. & Mrs. T. Nozal, J. Olson, Mrs. T. Potter.

Beetown (53) — T. Ingram, C. Sundin.

Beloit (59) — V. Anderson, A. Bauer, R. Behrens, Mr. & Mrs. J. Brakefield, R. Case, D. Cox, Mr. & Mrs. R. Ellefs, **T. Ellis,** Mr. & Mrs. H. Guetschow, A. Helper, Mr. & Mrs. R. Howard, R. Livengood, Mr. & Mrs. J. Mahlum, M. Maxson, Mr. & Mrs. L. McCartney, R. Morse, M. Peterson, D. Sandgren, M. Stabb.

Brule (3) — Mrs. D. Berube, N. Galecke, K. Magnuson, B. Klugow, R. Klugow, Mrs. C. Osborn.

Chippewa Falls (17) — J. Bergstrom, P. Blanchard, K. Hillery, **C. Kemper,** S. Robbins.

Clintonville (22) — B. Behnke, R. Edwards, E. Holm, R. McMahon, M. Marshek, Mr. & Mrs. R. Rill, J. Sharp, W. Wernberg.

Clyde (51) — F. Brazelton, **W. Sievert.**

Cooksville (54) — D. Grilley, **J. Wilde,** S. Wilde.

Cornelia (56) — T. Ingram, D. Wildes.

Darlington (Seymour Corners) (57) — D. Carlson, **T. Ingram.**

Ellsworth (21) — R. Behrens, Mr. & Mrs. D. Bolduc, J. Dent, R. Everts, W. Jiracek, Mr. & Mrs. B. Lien, M. Olson, B. Trandem, E. Trandem, E. Trandem.

Ephraim (14) — R. Lukes, C. Scholz, **H. Wilson.**

Fifield (5) — **Mr.** & Mrs. **T. Nichols.**

Fond du Lac (38) — W. Brown, F. Brown, D. Cahill, Mrs. G. Burkhardlt, C. Fuhrman, B. Fuhrman, **W. Gilles,** Sister M. Grace, Ma. Heyden, Mi. Hayden, L. Kitzman, R. Knuth, Mrs. I. Koehler, L. Mattig, M. Petersen, J. Petersen.

Fountain City (31) — W. Drazkowski, D. Gray, G. Hoesley, L. Hoesley, W. Jacobs, Mr. & Mrs. M. Meier, F. Voelker, Bro. T. Voelker.

Fremont (30) — Mrs. C. Defferding, Mrs. H. Nowak, Mrs. E. Prahl, Mrs. C. Radtke, **D. Tessen,** Mrs. F. Tessen, Mrs. F. Zeichert.

Galesville (32) — Mr. & Mrs. S. Curtis, H. Lee.

Green Bay (24) — J. Bader, **B. Chartier, E. Cleary,** J. Cleary, Bro. Columban, R. Cook, D. Dashnier, N. DeGrave, E. Defenderfer, G. Delsart, M. Duquaine, H. Duquaine, T. Erdman, C. Hussong, E. Jacobs, J. Jacobs, P. Kane, R. Koeller, Mrs. R. Koeller, H. Lindberg, V. Muench, P. Romig, C. Stencil, M. Stencil, E. Strehlow, Q. Van Vondereu, M. Van Vondereu, A. Weber, L. Yindra, G. Yindra.

Hales Corners (50) — I. Balsom, **M. Donald,** D. Hanbury, B. Logan, Matt Michelic, Mark Michelic, T. Michelic, K. Priebe, E. Reed, I. Sanders, J. Sanders.

Holcombe (10) — J. Engvall, Mr. & Mrs. G. Harm, **S. Robbins,** T. Schoonover.

Horicon (42) — **H. Mathiac.**

Hudson (18) — Mr. & Mrs. S. Curtis, T. Nichols, M. Olson, **S. Robbins,** T. Soulen, P. Tweet.

Kenosha (61) — A. Brach, A. Carlson, K. Dearoff, **L. Erickson,** M. Flagg, M. Hewitt, J. Joslyn, D. McAleer, C. Palmer, L. Palmer, H. Petersen, R. Pitts, E. Prins, J. Rohan, F. Vaearello, B. Weber.

Kewaunee (26) — E. DeCramer, R. Lukes.

LaCrosse (39) — K. Krumm, J. Lafky, P. Lafky, E. Lawson, **F. Lesher,** J. Lesher, J. Rosso, J. Unbehaun, L. Unbehaun, J. Wine.

Lake Geneva (60) — J. Anesey, K. Bartel, G. Culp, L. Dunlob, E. Kiefer, G. Ledger, J. Ledger, M. Lehmann, D. Matchett, J. Morgan, **C. Palmquist,** E. Pearson, B. Russell, P. Schulze, R. Shute, S. Shute, G. Smith, H. Wilson.

Lakewood (9) — **J. Woodcock.**

Madison (47) — Mr. & Mrs. N. Barger, R. Bere, F. Bell, Mr. & Mrs. W. Brown, J. Brown, C. Crocker, B. Foster, K. Hansen, J. Hickey, W. Hilsenhoff, H. Irwin, M. Jaeger, F. Jordan, J. Kossow, Mr. & Mrs. R. Lound, F. Lound, C. Naeseth, C. Nelson, K. Nelson, L. Noland, L. Sanyer, Mr. & Mrs. W. Severson, Mr. & Mrs. F. E. Shepherd, J. Torrie, Mrs. W. Vogelsang, J. Walker, **M. Walker,** L. Weiss, E. Werner, D. Willard, S. Wurster, Mr. & Mrs. . Zimmerman.

Manitowoc (33) — R. Ausustine, B. Brouchoud, R. Casper, Mr. & Mrs. R. Elfner, Mr. & Mrs. D. Good, Mrs. R. Feest, Mr. & Mrs. R. Halliry, Mr. & Mrs. R. Hammond, Mrs. H. Herreid, Mr. & Mrs. W. Krysan, L. Lutterman, R. Rensink, J. Swoboda, Mr. & Mrs. R. Tess, Mr. & Mrs. E. Wilsman.

Marquette Co. (37) — I. Chipman, M. Chipman, C. Galecke, **B. Klugow.**

Table 3 — Continued

Merrill (11) — T. Lokemoen, A. Rusch.

Milton (52) — **J. Ohm** + 6 additional observers.

Milwaukee (48) — M. Allen, N. Badten, I. Balsom, Mr. & Mrs E. Basten, T. Bintz, Mr. & Mrs. J. Cambell, Sister E. Daun, M. Decker, **M. Donald,** Mr. & Mrs. C. Frister, A. Hehn, Mrs. G. LaBudde, Mr. & Mrs. H. Liebherr, Mr. & Mrs. O. Liljequist, Mr. & Mrs. H. Logeman, Mrs. L. Logeman, Mark Michelic, Matt Michelic, T. Michelic, K. Priebe, J. Sanders, Mr. & Mrs .L. Seiling, Mrs. A. Simmons.

Monroe (58) — **W. Rohde.**

Necedah (34) — **W. Brown,** F. Jordan.

New Richmond (15) — H. Bleier, M. Olson, H. Toli, **P. Tweet.**

Oconomowoc (46) — H. Bauers, D. Blair, I. Blair, L. Crawford, J. Fuller, A. Gauerke, L. Gauerky, G. Hammel, C. Hayssen, A. Kailing, E. Larson, E. Lyle, E. Peartree, J. Peartree, D. Ruppnow, M. Sharp, Ri. Sharp, Ro. Sharp, T. Sharp, W. Wellman.

Oshkosh (35) — B. Abraham, Mr. & Mrs. R. Allen, M. Bretschneider, Mrs. R. Buckstaff, E. Chase, J. Evans, Mrs. G. Fisher, D. Faust, M. Foust, Mr. & Mrs. V. Foust, B. Frisbie, Mrs. E. Hund, Mrs. N. James, G. Keyes, J. Knaak, R. Knuth, S. Krause, Mr. & Mrs. L. Lyon, M. Misdall, Mr. & Mrs. S. Patterson, Mrs. F. Riddell, D. Runyan, Mr. & Mrs. R. Shepard, E. Siebert, G. Siebert, E. Stanley, D. Strohmeyer, T. Underwood, Mrs. J. Williams.

Peshtigo (13) — M. Balwit, G. Brabender, H. Lindberg, L. Lintereur.

Portage (40) — **W. Brown.**

Pulaski (23) — B. Chartier, R. Hasterlik, G. Havel, E. Jacobs, J. Jacobs, D. Palmer, C. Sokolowski, **M. Wierzbicki.**

Racine (55) — H. Baker, G. Baker, **L. Erickson,** D. Erickson, J. Harris, D. Hoslyn, J. Joslyn, D. Krehnl, J. Larson, L. Larson, L. Palmer, E. Prins, B. Pugh, J. Rohan, A. Simpson, B. von Jarchow, B. Weber.

Randolph (41) — **C. Gilmore.**

Richland Center (44) — S. Anderson, S. Barnett, F. Blackmore, G. Dettmann, R. Hirschy, M. Koelsch, K. Kretschmann, J. Marshall, Mrs. C. Meadows, C. Meadows, S. Miller, Mrs. H. Nee, B. Nee, M. Nee, B. Pittman, Br. Pittman, Mr. & Mrs. R. Pittman, J. Rosso, D. Ruckersdorf, Mrs. J. Spear, Mr. & Mrs. J. Unbehaun.

Sauk City (Mazomanie) (45) — T. Ashman, **Mr.** & Mrs. **N. Barger,** Mr. & Mrs. W. Brown, J. Brown, W. Hilsenhoff, D. Kindschi, B. Knudsen, G. Knudsen, J. Knudsen, K. Knudsen, Mr. & Mrs. H. Koenig, Mr. & Mrs. H. Kruse, H. Kruse, J. Kruse, H. Northup, Mr. & Mrs. H. Oriens, Mrs. R. Rusch, Mrs. W. Severson, Mrs. W. Vogelsang, Mrs. P. Werner, D. Willard, Mr. & Mrs. J. Zimmerman.

Shawano (19) — L. Fenton, H. Handrich, O. Henning, V. Henning, J. Hoppe, K. Hoppe, W. Hoppe, H. Irish, M. Irish, J. Orish, P. Kristof, B. Kuckuk, B. Moede, J. Moede, Mrs. H. Otto, M. Peterson, L. Pubanz, Mrs. F. Ready, E. Schulberg, A. Schoff, A. Tibbets, D. Whitehouse.

Shiocton (27) — Mrs. C. Defferding, Mrs. H. Komp, Mrs. G. LaCroix, Mrs. D. Parry, Mr. & Mrs. L. Schwall, L. Shepard, D. Tessen, Mrs. F. Tessen, B. Vander Bloemen.

Solon Springs (4) — N. Galecke, F. Hennessy, B. Klugow, J. Senske, R. Tuverson.

Stevens Point (25) — M. Baumgartner, F. Baumgartner, D. Benz, J. Bickford, F. Eastwood, W. Hansen, V. Heig, H. Manske, R. Rossier, O. Rice, J. Simonis, G. Stevenson, H. Wenger, R. Mhitmide, B. Wievel.

Summit Lake (8) — B. Pickering, C. Rudy, M. Rudy.

Superior (2) — M. Granlund, M. Schmidt, Mi. Schmidt, D. Waseen.

Tomah (36) **R. Heagle.**

Washington Island (6) — **L. Erickson,** D. Kennett.

Waukesha (49) — R. Adams, Ru. Adams, C. Anthes, R. Anthes, H. Bielefeldt, J. Bielefeldt, O. Compton, A. Davidson, P. Davidson, H. Graser, C. Henricks, E. Hoffmann, P. Hoffmann, S. Johnson, C. Klug, J. Klug, W. Klug, W. Laatsch, C. Meade, C. Nelson, M. Nelson, W. Oberlein, M. Rutenber, D. Stewart, J. Stewart, **A. Throne,** T. Throne.

Wausau (16) — R. Andrews, E. Andrews, D. Bierbrauer, **E. Bierbrauer,** F. Hensey, D. Krause, Mr. & Mrs. C. Kemp, L. Mattern, B. Mattern, R. Lane, E. Pelkin, B. Tremls, E. Tremls, M. Tremls, J. Williams, Mr. & Mrs. H. Zillman.

Table 1 - Birds seen on 20 or more counts

Count Number	Bayfield 1	Superior 2	Brule 3	Solon Springs 4	Fifield 5	Washington Island 6	Barron 7	Summit Lake 8	Lakewood 9	Holcombe 10	Merrill 11	Antigo 12	Peshtigo 13	Ephraim 14	New Richmond 15	Wausau 16	Chippewa Falls 17	Hudson 18	Shawano 19	Augusta 20	Ellsworth 21
Mallard	8	..	5	11	..	..	..	1	..	..	102	..	..	..	6	553	57	11	..	..	8
Black Duck	1	..	19	2	..	..	..	..	1	..	..	..	4	..	..	37	2	2	..	..	..
Common Goldeneye	4	..	11	40	..	19	..	..	..	..	..	..	44	57	2	140	314	26	47	..	..
Red-tailed Hawk	..	..	..	..	..	..	*	..	..	..	..	..	..	..	2	..	1	3	3	..	1
Rough-legged Hawk	..	..	..	..	1	1	..	..	..	1	..	4	1	..	1	1	..	..	1	1	..
Sparrow Hawk	..	..	..	..	..	..	..	..	..	..	*	..	..	..	1	*	..	4	1	..	2
Ruffed Grouse	1	..	4	2	..	..	7	*	..	2	2	4	1	..	2	7	2	10	3	..	4
Ring-n. Pheasant	..	15	..	..	..	9	4	..	..	..	..	..	..	..	3	..	..	13	2	..	1
Gray Partridge	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	*	..	..
Mourning Dove	..	1	..	..	..	..	*	..	..	1	4	..	47	..	9	91	5	19	5	..	3
Great Horned Owl	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	*	2	..
Belted Kingfisher	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	3	1	..	1
Red-bel. Woodpecker	..	..	..	..	..	..	2	..	..	..	..	..	1	..	7	1	4	16	*	3	21
Red-head. Woodpecker	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	5	1	8	..	2
Hairy Woodpecker	4	1	3	4	4	7	5	9	4	8	..	10	9	10	13	14	10	12	20	3	16
Downy Woodpecker	10	1	5	2	8	22	13	12	3	5	7	12	7	17	20	21	20	45	29	3	37
Horned Lark	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	*	2	..	12
Blue Jay	76	2	51	59	9	174	41	35	20	42	14	36	87	40	131	123	186	241	166	74	135
Common Crow	9	..	9	18	6	1	8	*	..	47	12	11	108	14	94	52	208	527	220	55	64
Black-cap. Chickadee	120	15	104	57	132	136	46	300	35	191	60	141	44	166	91	382	180	188	190	60	133
Tufted Titmouse	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	*	6	7	..	..	2
White-br. Nuthatch	6	..	5	9	3	16	16	18	1	7	14	11	10	16	30	41	48	68	46	7	57
Red-br. Nuthatch	4	..	6	3	3	6	..	2	3	2	2	4	1	20	..	14	1	5	8	2	..
Brown Creeper	4	..	1	..	..	..	2	..	2	1	..	2	..	..	3	..	1	6	4	..	1
Robin	..	..	1	1	..	*	1	..	..	4	2	..	..	..	2	*	..	3	..	..	2
Northern Shrike	1	..	1	..	2	..	..	..	..	1	1	8	*	..	3	1	1	3	..	..	2
Starling	124	93	41	..	20	28	17	80	46	13	124	8	66	2	397	148	195	591	112	81	355
House Sparrow	2	80	13	24	491	67	100	236	27	303	1338	478	87	46	629	311	1469	1351	300	545	1996
Red-winged Blackbird	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..
Common Grackle	..	..	..	..	..	2	..	..	1	1	..	1	..	..	4	..	..	2	..	..	..
Cardinal	1	..	..	..	*	34	14	..	..	..	*	4	2	55	12	18	23	71	24	9	180
Evening Grosbeak	124	35	553	118	370	39	40	57	45	116	229	71	66	28	..	126	8	11	396	147	..
Purple Finch	..	..	..	..	..	..	*	..	..	..	..	..	2	2	*	*	..	2	1	..	4
American Goldfinch	26	..	39	..	..	..	5	1	..	..	7	3	70	38	19	66	834	131	5	287	85
Slate-colored Junco	..	..	..	..	..	..	6	..	..	..	..	2	4	16	51	7	18	122	60	30	121
Tree Sparrow	..	..	..	..	..	..	..	..	..	1	..	2	3	..	18	14	28	152	24	21	123
Song Sparrow	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1
Snow Bunting	7	..	..	25	12	..	105	..	..	84	..	42	45	..	3	10	4	9	54	1	..
Total Species	25	13	22	17	15	28	19	16	14	21	15	27	25	23	39	29	29	55	35	21	36
Date	D-29	D-24	D-26	D-30	D-26	D-28	D-26	D-29	D-31	D-23	D-26	D-27	J-2	D-26	J-2	J-3	D-27	J-1	D-28	J-3	J-3
Number of Observers	6	4	6	5	2	2	5	3	1	5	2	4	4	3	4	18	5	7	23	1	10
Party Hours	19	22	15	15	8	9	9	10	8	11	9	22	18	6	16	32	21	21	59	6	
Sky		MC1	MC1	PC1	PC1	C1	C1	F	C1	Sn	C1	F	PC1	Sn	PC1	C1	F	C1	PC1	C1	
Mean Temperature °F	17	-5	16	12	10	28	17	10	24	18	15	10	23	15	15	10	5	29	1	10	
Mean Wind Vel. m.p.h.	6	3	6	5	5	7	11	0	7	15	5	5	3	4	1	5	7	9	12	9	
Snow Cover (inches)	19	13	18	7	8	12	6	10	9	3	5	7	9	12	7	8	3	4	5	6	

Table 1 - (continued)

Count Number	22 Clintonville	23 Pulaski	24 Green Bay	25 Stevens Point	26 Kewaunee	27 Shiocton	28 Alma	29 Appleton	30 Fremont	31 Fountain City	32 Galesville	33 Manitowoc	34 Necedah	35 Oshkosh	36 Tomah	37 Marquette Co.	38 Fond du Lac	39 LaCrosse	40 Portage	41 Randolph	42 Horicon
Mallard	..	..	435	17	..	14	2	1181	..	..	5	66	40	100	..	42	2	351	..	7	..
Black Duck	..	..	410	..	..	..	..	485	..	..	2	35	306	8	..	1	..	19	..	..	..
Common Goldeneye	..	..	150	82	31	..	..	467	..	..	..	114	28	3	..	13	1	9	3	..	..
Red-tailed Hawk	..	1	4	1	..	3	12	21	9	2	4	2	1	7	2	1	2	10	..	2	..
Rough-legged Hawk	1	10	3	3	1	1	1	3	7	1	1	1	1	1	1	..	1	1	..	1	6
Sparrow Hawk	1	7	2	..	2	3	..	14	7	..	3	..	..	6	1	1	3	2	..	*	..
Ruffed Grouse	1	1	1	9	1	5	..	..	10	..	14	2	*	..	1	..	..	4	..	1	..
Ring-n. Pheasant	3	..	48	..	1	25	..	375	..	3	..	78	..	96	..	3	4	..	..	29	16
Gray Partridge	7	13	22	12	..	3	..	34	..	..	..	70	..	6	..	..	13	..	..	..	..
Mourning Dove	40	46	56	37	4	67	36	566	100	2	29	27	4	31	1	6	4	49	30	4	38
Great Horned Owl	*	..	2	..	..	..	1	1	..	..	7	2	2	3	..	..	..	2	..	4	..
Belted Kingfisher	..	..	1	..	..	..	..	1	..	1	2	1	1	..	..	..	..	2	..	..	..
Red-bel. Woodpecker	1	..	2	..	..	1	12	3	3	5	13	*	..	4	1	..	4	20	..	..	..
Red-head. Woodpecker	..	..	1	..	..	3	1	8	1	1	1	..	..	..	..	..	..	1	..	5	..
Hairy Woodpecker	9	5	7	8	2	23	12	21	16	8	29	6	2	11	..	3	6	14	1	2	1
Downy Woodpecker	14	16	12	26	4	29	17	68	17	14	55	33	5	46	3	8	18	29	6	9	3
Horned Lark	..	*	..	..	1	1	..	31	..	..	..	4	..	27	..	..	68	8	..	13	..
Blue Jay	48	50	88	126	12	42	187	134	83	168	96	59	39	54	75	24	24	122	24	22	20
Common Crow	86	71	48	258	82	34	..	558	60	30	126	96	70	187	53	84	74	47	52	47	3
Black-cap. Chickadee	133	111	53	185	17	102	69	215	85	50	147	121	13	83	28	24	74	90	60	19	7
Tufted Titmouse	..	..	..	..	..	..	..	1	..	..	..	*	..	2	..	..	..	1	..	..	..
White-br. Nuthatch	22	9	14	35	3	45	39	88	36	6	65	23	6	45	5	6	27	38	10	10	2
Red-br. Nuthatch	2	..	*	4	..	2	..	3	..	..	1	4	..	2	..	..	..	1	..	*	..
Brown Creeper	*	..	1	4	..	1	..	25	2	..	1	1	2	8	..	..	..	2	..	..	..
Robin	..	..	2	..	6	..	..	13	*	3	..	2	..	1	..	..	..	*	..	3	..
Northern Shrike	*	2	3	1	..	3	2	5	4	..	1	..	..	*	1	1	..	1	..	..	1
Starling	186	281	992	167	106	296	399	2100	267	126	430	125	33	1092	39	8	956	441	10	977	64
House Sparrow	563	339	1025	311	196	1068	2067	3000	1170	1294	482	434	83	2043	82	185	1395	1597	59	811	127
Red-winged Blackbird	..	..	*	..	..	1	..	..	5	35	4	..	..	8	..	..	20	..	..	..	..
Common Grackle	..	..	2	..	..	3	..	25	1	..	..	..	..	101	..	..	22	1	..	..	1
Cardinal	17	11	25	17	7	66	116	136	39	78	58	39	4	25	7	18	11	138	5	13	6
Evening Grosbeak	63	30	46	171	3	101	..	51	22	..	..	41	*	8	43	8	7	*	1	..	..
Purple Finch	..	3	36	*	21	36	..	86	9	..	..	59	..	2	1	..	2	7	..	..	..
American Goldfinch	540	130	80	328	14	188	18	435	467	23	142	38	275	117	129	215	90	132	..	17	*
Slate-colored Junco	28	86	73	81	14	81	92	280	155	110	217	138	7	94	99	86	33	227	20	64	8
Tree Sparrow	22	142	52	31	28	159	45	175	14	146	136	64	..	72	87	54	31	166	1	21	12
Song Sparrow	..	..	4	..	..	1	..	7	..	1	..	1	..	*	..	..	5	..	..	..	..
Snow Bunting	..	..	15	473	1	58	..	9	..	..	..	112	..	119	..	31	..	..	..	125	..
Total Species	26	22	50	33	26	39	26	66	32	29	37	43	23	42	21	27	31	45	15	26	20
Date	J-2	D-28	D-27	J-2	D-28	D-23	J-1	J-2	D-28	D-27	D-26	J-9	D-24	J-2	D-29	D-23	D-29	D-23	D-22	J-1	D-23
Number of Observers	9	8	29	15	2	10	9	41	7	9	3	22	2	35	1	4	17	10	1	1	1
Party Hours	31	22	53	56	8	18	24	81	9	14	14	75	9	89	8	12	42	145	7	12	9
Sky	F	F	F	F	PC1	MC1	Sn	F	F	F	C1	F	PC1	F	PC1	MC1	PC1	MC1	PC1	F	MC1
Mean Temperature °F	20	2	12	11	17	20	30	20	5	10	23	20	5	25	13	18	13	13	22	30	19
Mean Wind Vel. m.p.h.	5	3	3	7	7	12	10	9	5	10	10	3	8	8	7	13		14	5	7	12
Snow Cover (inches)	4	6	5	8	4	5	2	7	6	8	9	14	6	12	6	7	9	4	8	9	10

Table 1 - (continued)

Count Number	43 Baraboo	44 Richland Center	45 Sauk City	46 Oconomowoc	47 Madison	48 Milwaukee	49 Waukesha	50 Hales Corners	51 Clyde	52 Milton	53 Beetown	54 Cooksville	55 Racine	56 Cornelia	57 Darlington	58 Monroe	59 Beloit	60 Lake Geneva	61 Kenosha	Number of Counts	Total Individuals
Mallard	11	32	130	84	1677	1331	45	508	..	5	..	175	1563	..	..	..	505	290	14	37	9394
Black Duck	..	..	3	9	154	285	42	47	..	..	..	2	176	..	..	..	8	45	..	26	2105
Common Goldeneye	3	..	78	2	57	2619	3	2467	..	..	..	14	616	..	..	..	63	520	199	34	8246
Red-tailed Hawk	7	4	27	38	17	3	18	35	1	10	33	..	34	28	17	*	8	15	21	39	410
Rough-legged Hawk	1	..	16	14	5	1	10	2	..	3	8	1	12	4	6	1	4	13	16	45	174
Sparrow Hawk	1	4	7	5	1	1	..	11	..	..	3	1	10	3	2	..	5	1	5	32	120
Ruffed Grouse	6	..	9	..	..	..	..	..	16	..	..	7	..	..	..	..	..	..	..	30	139
Ring-n. Pheasant	5	2	40	109	213	87	60	241	..	17	..	..	328	1	13	1	167	4	129	35	2145
Gray Partridge	..	..	..	8	14	67	14	..	..	14	11	..	..	..	21	..	16	1	6	20	355
Mourning Dove	4	8	525	45	298	243	217	5	..	65	40	..	232	36	57	..	451	106	74	47	3768
Great Horned Owl	3	..	1	..	7	2	2	1	..	..	..	..	1	..	..	2	..	..	2	22	51
Belted Kingfisher	1	2	4	*	3	1	2	..	..	..	3	..	..	4	1	..	3	1	..	22	42
Red-bel. Woodpecker	9	21	48	3	5	5	12	1	2	5	17	..	1	12	3	1	4	4	..	37	277
Red-head. Woodpecker	1	1	1	..	..	1	3	2	2	1	4	..	10	3	3	..	2	1	10	30	85
Hairy Woodpecker	12	15	21	12	16	11	32	1	4	3	7	1	2	8	..	1	9	17	5	58	529
Downy Woodpecker	16	27	56	25	53	48	62	22	5	33	7	4	25	19	6	15	36	18	18	61	1226
Horned Lark	..	21	..	24	59	5	23	..	..	69	14	..	99	44	101	5	327	7	44	25	1011
Blue Jay	78	139	274	49	119	38	124	36	12	41	80	12	27	154	38	*	53	17	47	60	4577
Common Crow	54	105	845	88	792	387	282	15000	28	142	111	27	620	74	63	4	13121	160	76	57	35508
Black-cap. Chickadee	95	81	154	97	169	199	127	33	27	50	49	7	8	58	47	25	61	99	9	61	5852
Tufted Titmouse	1	14	2	3	12	1	..	..	..	5	5	3	1	15	1	*	4	1	1	23	90
White-br. Nuthatch	34	36	96	25	57	29	61	27	9	23	22	4	8	20	..	11	18	21	6	59	1458
Red-br. Nuthatch	..	..	6	1	5	7	2	4	..	2	1	..	1	2	..	..	..	..	2	36	138
Brown Creeper	..	1	6	2	11	3	1	2	..	2	..	..	..	..	..	..	4	2	..	31	108
Robin	..	1	..	1	7	29	*	2	..	1	..	..	14	..	..	..	..	2	..	23	103
Northern Shrike	1	1	3	2	3	2	*	2	..	..	..	..	4	..	..	..	..	1	1	33	69
Starling	10	300	760	921	2988	45479	1118	1286	1	553	1301	31	1529	628	510	30	4238	329	655	60	74303
House Sparrow	156	3200	2675	1696	3731	1029	2899	753	21	1906	2708	100	1033	2508	2048	50	4584	415	768	61	60504
Red-winged Blackbird	..	10	17	*	44	5	2	1	..	10	6	..	4	1	..	..	..	12	1	22	190
Common Grackle	..	..	1	1	6	13	3	5	..	12	..	..	3	1	..	..	1	1	..	25	213
Cardinal	39	509	339	35	171	11	121	15	10	42	201	6	54	241	98	11	74	21	18	53	3299
Evening Grosbeak	9	3	*	*	9	38	32	4	..	..	..	..	8	14	..	..	..	..	*	41	3291
Purple Finch	13	9	130	24	42	45	61	3	..	8	..	..	1	4	..	..	23	3	..	29	639
American Goldfinch	82	7	369	73	124	152	143	23	..	15	107	..	131	14	..	1	40	93	26	50	6394
Slate-colored Junco	83	127	455	206	363	391	443	157	13	126	345	25	474	362	107	35	733	68	293	51	7236
Tree Sparrow	170	63	303	101	116	15	85	133	7	106	448	5	639	501	362	20	1049	276	338	49	6581
Song Sparrow	..	4	3	..	19	8	16	9	..	15	23	1	10	6	4	*	28	10	11	25	190
Snow Bunting	..	4	..	..	17	57	3	..	..	200	..	..	20	..	14	..	82	..	31	31	1772
Total Species	33	36	48	40	62	65	42	60	17	36	29	22	52	33	25	17	41	60	43		
Date	D-26	J-3	J-1	D-27	D-26	D-27	D-27	D-30	D-31	J-2	D-31	J-1	D-26	D-29	D-28	D-28	D-27	J-2	J-2		
Number of Observers	8	23	28	20	39	30	28	11	2	7	2	3	18	2	2	1	25	18	16		
Party Hours	17	38	64	31	88	79	64	32	8	17	20	9	57	17	18	7	69	57	49		
Sky	Cl	Cl	Cl	PCl	Cl	F	F	PCl	PCl		F	Cl		F	F	F	F	F	PCl		
Mean Temperature °F	18	19	31	15	17	17	14	18	12	21	9	..	27	10	8	14	15	27	26		
Mean Wind Vel. m.p.h.	14	15	10	4	9	18	20	12	3	3	7	10	12	7	3	0	15	3	7		
Snow Cover (inches)	10	16	9	9	11	10	12	8	7	7	7	6	4	7	5	4	2	6	6		

F = Fair PCl = Partly Cloudy MCl = Mostly Cloudy Cl = Cloudy Sn = Snowing

FIELD NOTES

1970 SPRING COUNT

By IRMA CHIPMAN

The spring season was about normal with March and early April being on the cool side. During the latter part of April it became much warmer. May had periods of cold, wet and windy weather which hampered observers. No unusual spots developed for shore birding. Many birders reported a poor migration in general as there were few spots of heavy concentrations.

From the Dryers of Poynette: "We had good waves of warblers and vireos from May 6 to May 19 with Tennessees and Chestnut-sideds in the lead. In spite of cloudy, rainy and cold weather, the birds sang."

Kenneth Lange of Sauk County reports from his notebook: "Birds moving throughout the latter part of April, with about six to eight 'cheeps' per minute during the night of April 30-May 1. May 16-17: increases in numbers (or were they here during the rainy days?). From the 18th on: very few migrants. Usually, I find about five species of warblers by April 30 (nine species in 1969). This year, I noted 16 species of warblers by the end of April, plus the Yellow-throated and Warbling Vireos".

Alfred S. Bradford of Appleton writes: "I would say we had a normal spring season, somewhat on the warm side. The early part of March was cold. On March 14th there was a large movement into the county of grackles, redwings, robins, flickers, and eastern meadowlarks. On May 5 there was a large warbler flight but the species I saw were mostly Myrtles, Black and Whites, and Cape Mays."

Dennis Gustafson of Milwaukee writes: "In general, all herons seemed to be somewhat later than usual. In general, a very poor year for hawks for me".

Samuel Robbins writes: "There was a fine warm spell during the last five days of April, with just a few stragglers of what would normally be early May migrants. Not a few night migrants were heard May 8-9 and 9-10. May 17 also appeared to be a day of heavy migration. The wind-up in late May appeared normal, what little I could see of it. No suitable shorebird habitat developed in this area this spring".

Daryl Tessen of Outagamie County writes: "Shorebirds good—low water helped. Very poor migration again of warblers. Northern Waterthrush more numerous".

Alice Vincent of Price County writes: "A cold, windy spring—poor migration. Many less Harris' Sparrows, White-crowned and White-throated Sparrows. I saw no Tree Sparrows. Rose-breasted Grosbeaks and Baltimore Orioles seem to be on the increase; also more Red-eyed Vireos, but still down from a few years ago. A significant increase in Red-headed Woodpeckers, Ruby-throated Hummingbirds and Purple Martins. Very few Blue-winged Teal seen yet".

This is a sampling of what some observers noted and it is apparent that one had to be at the right place at the right time. From all reports it appears that there was a heavy migration of many species on May 17.

Of the ninety-four reports received, Wisconsin came up with a total of 278 species, including one hybrid and one sub-species.

A number of rarities were observed to make the season exciting: Red-necked Grebe, Eared Grebe, Little Blue Heron, Cattle Egret, Snowy Egret, Mute Swan, Peregrine Falcon, Willet, Knot, Purple Sandpiper, Marbled Godwit, Avocet, Glaucous Gull, Western Kingbird, Black-billed Magpie, Carolina Wren, Varied Thrush, White-eyed Vireo, Worm-eating Warbler, Brewster's Warbler, Prairie Warbler, Hooded Warbler, Summer Tanager, Hoary Redpoll, and Gambel's White-crowned Sparrow.

1970 Spring Field Notes

Common Loon: The earliest observation was April 5 when three were seen by Daryl Tessen in Ozaukee County at Loon Bluff. April 6 in Dane County by William Hilsenhoff and April 10 in Chippewa County by Sam Robbins. Also noted in three May Counts.

Red-throated Loon: Three observations: April 5, one was seen in Ozaukee County at Loon Bluff by Daryl Tessen. Three were seen in the same area April 18 by Dennis Gustafson. Seen in Lafayette County on May 16 by N. R. Barger.

Red-necked Grebe: A good observation with 30x scope in Rusk County by Sam Robbins on May 3.

Horned Grebe: Noted in Milwaukee County April 6 by Mary Donald and also Dennis Gustafson. Gustafson also saw 18 in Ozaukee County on April 18. Present in Price County April 15 (Maybelle Hardy). Noted during May Count period at Stevens Point and in Douglas County May Count May 25.

Eared Grebe: Seen in Rusk County May 31 (Robbins). Still present June 6. Seen at 150 yards with 30x scope.

Pied-billed Grebe: Observed March 7 in La Crosse County (Fred Lesher) and in Marinette County April 1 (Harold Lindberg). General movement April 23-25.

White Pelican: Observed in Jefferson County April 25 through May by several observers.

Double-crested Cormorant: First sighted in Barron County April 24 (Alta Goff), in Jefferson County May 2 (Gustafson and Don Hanbury). Four nests reported from Marathon County May 11 (Walkinshaw and Pugh).

Great Blue Heron: There were a number of late March dates which may or may not have been wintering birds. Well distributed over the state between April 6 and April 12.

Green Heron: Several observations April 25-27. Common by the first week in May.

Little Blue Heron: Two reports—James Hamers in Kenosha County April 25 (in cattail marsh) and in Brown County May 7 (Paul Kane) at Green Bay along river.

Cattle Egret: Eleven sighted May 8 about three miles north of Janesville by Mrs. J. H. Brakefield, Mrs. Ruth Livingood and Melva Maxson. They were gone the next day.

Common Egret: Arrival March 30 (Lesher) in Vernon County beat the record by

13 days. Three were seen in Dodge County April 3 (Tessen) and 100 plus were seen May 24 at the same location also by Tessen. Three noted in Waushara County April 24 (Delbert Greenman).

Snowy Egret: Observed May 9 by Thomas, Carol and David Bintz in Ozaukee County. See "By the Wayside".

Black-crowned Night Heron: More sightings this year. First observed in Milwaukee County April 9 (Elmer Strehlow), also seen on seven May Counts.

Yellow-crowned Night Heron: Six observations this year. Four were seen in La-Crosse County April 25 (Lesher) at their usual nest site; seen in Racine County April 9 (Wm. Pugh) and by Roger Monthey in Dane County April 11. Seen by many on the Milwaukee and Green Bay May Counts, both on May 17. The birds did not return this year to Greenfield Park (Gustafson).

Least Bittern: Seen May 6 in LaCrosse County (Rosso); ten were noted in Dodge County May 24 (Tessen); also observed on three May Counts.

American Bittern: First noted in Barron County April 15 (Alta Goff); several sightings between April 25 and 27. Seen on twelve May Counts.

Mute Swan: Two seen March 31 in Milwaukee County (Tessen). They were also present there in February.

Whistling Swan: First noted in Brown County March 19 (Ed Cleary and Brother Columban; hundreds were seen where high winds had caused ice to break up in Green Bay on April 9 (Carl Richter). General movement April 8 through 12. Still present May 17 in Waukesha County (May Count).

Canada Goose: About 500 migrating in Milwaukee County March 7 (Strehlow); hundreds to thousands migrating over Appleton March 23 (Tessen); about 5000 at Fond du Lac April 5 (Tessen); a good flight March 7 in Dodge County (Barger). On April 25, about 40 of the larger species in Langlade County (Lynn Schimmels) and he also reported about 80 of them April 8 at a pond east of Antigo.

Snow Goose: First noted March 5 in Rock County (Mahlum) and in Brown County April 8. Both Lindberg and Richter report them for Marinette County April 25 (mixed with blues and snows). The Milwaukee May Count may 17 reported 80 plus.

Blue Goose: Observed March 22 in Brown County (Richter); in Columbia County April 12 (Tessen); noted on May 17 on the Green Bay May Count.

Mallard: Well distributed by the second week in April.

Black Duck: Widespread by April 12-13.

Gadwall: Major movement March 30 and well distributed by mid-April.

Pintail: Wintered in Dane County; reported in Waushara County April 3 (Greenman) and April 5 in Waupacka County (Rill).

Green-winged Teal: Noted in Chippewa County April 15 (Robbins); major flights April 11-18.

Blue-winged Teal: First noted in Milwaukee County April 1 (Hanbury) and in Jefferson County (Stock). Well distributed by mid-April. In Marathon County May 11 one hundred and fifty were seen by Walkinshaw and Pugh. First reported at Horicon Marsh March 22. Earliest in several years (Jim March).

American Widgeon: Noted in Marinette County April 10 (Lindberg) and April 15 in Chippewa County (Robbins). Peak migration dates April 6 and April 25 (Hilsenhoff) Dane County.

Shoveler: Many late March dates. A major flight April 8 in LaCrosse County (Rosso).

Wood Duck: First noted in Rock County March 26 (Brakefield); in Price County April 16 (Alice Vincent). In Marinette County April 29 (Richter) found an interesting nest site in a cavity dug by a Pileated Woodpecker and occupied by a gray squirrel in the winter. Six duck eggs lay on top of the flattened out dead squirrel already quite 'ripe' and smelly.

Redhead: Present March 8 in LaCrosse County (Rosso) and present at the end of the period. A pair sighted April 12 in Waushara County (Greenman).

Ring-necked Duck: Arrived in most southern counties during the last week in March. Major movements April 8-9 and April 20-25.

Canvasback: Three hundred seen April 1 in Winnebago County (Tessen); observed in Brown County March 30 (Cleary and Columban); still present May 13 in LaCrosse County (Rosso) and in Burnett County (Hilsenhoff); also present in Brown County May 28 (Fr. Wierzbicki).

Greater Scaup: Noted in Barron County April 15 (Goff) and April 18 in Chippewa County (Robbins).

Lesser Scaup: Seen in Chippewa County April 8 (Robbins) and April 19 in Rusk County (Robbins) and present in both areas at the end of the period. General movements April 11-12 in south and central counties and April 20 in Price County.

Common Goldeneye: Migration dates April 6-11. Still present May 30 in Waukesha County (Michelic).

Bufflehead: Migration dates April 4-11 and April 16-18. Still present in Rusk County May 31 (Robbins).

Oldsquaw: Wintered in Milwaukee and Kenosha counties. One female seen at 30 feet in Milwaukee County May 25 (Dennis Gustafson).

White-winged Scoter: Last five migrated on April 18 at Loon Bluff in Ozaukee County (Gustafson); noted April 23 in Winnebago County (Robbins).

Ruddy Duck: Wintered in Milwaukee County (Donald) and in Ozaukee County (Tessen). Migration dates April 14-18. Twenty-five still present in Columbia County May 31 (Tessen).

Hooded Merganser: Well distributed April 11-15. Major movement in Columbia County April 25 (Hilsenhoff).

Common Merganser: April 26-27 was the first obvious northward push of this species, although a minor movement was noted April 7-11.

Red-breasted Merganser: March 21, found in LaCrosse County (Rosso and Lesher) and one female still there May 14.

Turkey Vulture: First noted in Vernon County March 31 (Lesher); April 9 in Jackson County (Schimmels); well scattered by mid-May.

Goshawk: Two observations: March 1 in Chippewa County (Robbins) and April 29 in LaCrosse County (Rosso).

Sharp-shinned Hawk: Present in Dane County at the beginning of the period (Hilsenhoff); Milwaukee County March 21 (Strehlow); noted on four May Counts.

Cooper's Hawk: Rather numerous. Observed in Oconto County March 31 (Richter). Observed on four May Counts.

Red-tailed Hawk: Common throughout the season. Rusk County April 5 (Robbins); Price County April 25 (Vincent); observed on sixteen May Counts.

Red-shouldered Hawk: Noted on five May Counts; most northern county reporting was Door April 30 (Eleanor Kuhn).

Broad-winged Hawk: Earliest report from Jefferson County March 25 (Stock); general migration dates April 24-26.

Rough-legged Hawk: Earliest north observations were March 7 in Marinette (Richter) and Chippewa (Robbins) Counties. General movement April 1-4.

Bald Eagle: Reports from five counties. Noted in Dane County March 13 (Barbara Volgelsang); in Price County April 15 (Hardy) and noted May 25 on the Douglas May Count. Present May 1 in Sauk County (Lange).

Marsh Hawk: Observed on 11 May Counts. First northern observations were April 4 in Price County (Hardy) and Rusk County April 5 (Robbins).

Osprey: First reported March 1 in Dane County (Vogelsang); April 18 Rock County (Brakefield) and Sauk County (Lange); still present in Dane County May 9 (Hilsenhoff). The March 1 arrival date breaks the previous record date of March 17.

Peregrine Falcon: Three of this endangered species reported. March 27 in Lang-

lade County (Schimmels); April 26 one observed in Dodge County chasing Wilson's Phalaropes at Theresa Marsh (Tessen) and in Jackson County May 17 (Robbins).

Pigeon Hawk: Noted March 18 in LaCrosse County (Rosso); March 27 in Outagambie County (Tessen); Barron County April 8 (Goff) and still present in Vilas County May 29 (Bradford).

Sparrow Hawk: Reported March 27 in Langlade County (Schimmels) with a good flight April 15 between Antigo and Ashland. Reported April 6 in Price County (Vincent). Still present in Milwaukee and Ozaukee Counties May 17.

Ruffed Grouse: Reports from 21 counties.

Prairie Chicken: A strong increase in 1970 spring counts on both Buena Vista (Portage County) and Leola (Portage County) marshes (Hamerstrom).

Sharp-tailed Grouse: Only two reports. April 18 in Price County (Hardy) and May 25 in Douglas County on May Count.

Bobwhite: Reports from Dane, Chippewa, LaCrosse, Vernon and Wood Counties.

Ring-necked Pheasant: Good winter survival in Outagamie County (Bradford). Seen on Douglas County May Count.

Gray Partridge: Reduced in numbers in Outagamie County (Tessen). Reported from Green County (Wayne Rohde).

Eastern Turkey: Observed by Don Follen, Sr. et al on their May Count May 19 in Juneau and Portage Counties.

Sandhill Crane: First reported March 24 in Waushara County (Greenman); March 28 in Racine County (Pugh); March 30 by several observers in Jefferson County. On May 9 in Wood County a nest found with two eggs (Walkinshaw and Pugh).

King Rail: Reported from four counties between May 17 and 24.

Virginia Rail: First reports April 25 from Dodge County (Gustafson), Kenosha County (Hamers) and Winnebago County (Tessen). General movement May 5 to 10.

Sora Rail: Reported in many areas between April 25 and 29 as far as Price County.

Common Gallinule: Noted in ten counties. Earliest arrivals in Dane County May 3 (Ashman and Tessen).

Coot: Noted in Barron County April 15. General migration dates April 16-20.

Semipalmated Plover: Earliest arrival April 26 in LaCrosse County (Rosso); still present in Milwaukee and Racine Counties May 24; observed on eight May Counts.

Piping Plover: Present in Milwaukee County May 1 (Gustafson); in Dane County May 15-18 (Connors) and May 17 along highway "M" near Westport Town Hall (Vogelsang). Seen May 25 in Douglas County (Bernard Klugow et al).

Killdeer: First reports March 7 in Dane and Dodge Counties (Barger) and in Kenosha County (Hamers). March 22 present in many areas.

Golden Plover: First noted in Columbia County April 17 (Dryers); ten other reports from seven counties between May 9 and 23. Last seen May 25 in Douglas County on their May Count.

Black-bellied Plover: May 10 in Chippewa County (Robbins) and in Brown County (Cleary and Columban). Present in Douglas County May 25.

Ruddy Turnstone: Reports from seven counties. Earliest report April 25 in Sheboygan County (Kuhn); present May 19 in Marinette County (Lindberg) and on the Douglas County May Count May 25.

Woodcock: First report March 16 in Sauk County (Lange) with sky dancing on March 21. Reported from Waupaca County April 26 (Rill); with a nest on April 30. Noted in Chippewa County April 7 (Robbins) and in Price County April 9 (Hardy).

Common Snipe: Ten reported in Ozaukee County April 5 (Tessen); found in Marinette County April 7 (Lindberg); Chippewa County April 11 (Robbins) and in Price County May 16 (Hardy). General movements April 8-12 and 17-26.

Upland Plover: Noted in Sheboygan County April 25 (Koopman) and in several counties the next three days.

Spotted Sandpiper: Many April observations and first reported from Kenosha County April 18 (Hamers). Well distributed by the last week in April.

Solitary Sandpiper: Reported from Brown County April 26 (Cleary and Columban); still present in several areas May 17.

Willet: Four reports: four were seen in Vernon County April 25 (Rosso); May 1 in LaCrosse County (Lesher); Dane County May 16 and 24 (Peter Connors and Bro. Voelkner); and also May 16, four were seen on a sandbar on Lake Mendota at the mouth of Baskerville Creek (Vogelsang).

Greater Yellowlegs: First reported in Dane County April 11 (Hilsenhoff); in Chippewa County May 15 (Robbins); May 9, in Outagamie County 150 were observed by Tessen. Latest departure date May 24 in Outagamie County (Bradford).

Lesser Yellowlegs: Reported from LaCrosse County April 8 (Rosso); April 10 in Brown County (Wierzbicki); still present in Ozaukee County May 27 (Gustafson).

Knot: Observed in Douglas County May 25 by Klugow et al.

Purple Sandpiper: Observed May 17 in Brown County by Clara Hussong et al.

Pectoral Sandpiper: First observations April 7 in Dane County (Vogelsang) and April 18 in Milwaukee County (Donald). Present May 7 in Chippewa County (Robbins) and Barron County (Goff) and still present there May 24.

White-rumped Sandpiper: May 20 in Dane County (Ashman). Present in Racine County May 24 (Hanbury and Gustafson). Noted on four May Counts including Douglas County on May 25.

Baird's Sandpiper: Three observations: Three seen May 15 in Dane County (Connors); May 20 in LaCrosse County (Rosso) and May 23 in Fond du Lac County (Tessen).

Least Sandpiper: Observed April 19 in LaCrosse County (Rosso); April 21 in Dane County (Ashman). Last noted in Ozaukee County May 30 (Gustafson).

Dunlin: First observed May 3 in Racine County (Gustafson); May 12 in Brown County (Cleary and Columban); about 350 seen May 17 in Brown County (Tessen); still present June 5 in Columbia County (Hilsenhoff).

Dowitcher: Most short-billed noted between May 9-17 and still present on May 23. Most long-billed about the same time. Reports too sketchy to form any conclusions.

Stilt Sandpiper: Found in Winnebago and Outagamie Counties May 9. Still present in Winnebago County May 16 (Tessen); in Racine County May 29 (Gustafson) and in Columbia County May 24 (Tessen).

Semipalmated Sandpiper: Three April dates: April 19 in LaCrosse County (Rosso); Columbia County April 25 (Hilsenhoff) and still present there May 30; in Milwaukee County April 27 (Donald). Six still present June 5 in Winnebago County (Tessen).

Marbled Godwit: Observed in Winnebago County during May Count period by Eunice Fisher; May 17 in Brown County (Tessen); in Milwaukee County May 24 (Donald) and two seen in Columbia County May 24 (Tessen).

Hudsonian Godwit: First seen in Columbia County May 8 (Hilsenhoff); in Winnebago and Outagamie Counties May 9; seen in Racine and Columbia Counties May 24 by several observers; also seen in Brown County May 17 (Tessen) and May 17 in Dane County (Vogelsang).

Sanderling: Two birds reported May 1 in Milwaukee County (Gustafson) and in Columbia County (Hilsenhoff); noted on the Green Bay and Douglas May Counts. Still present in Kenosha May 29 (Hamers).

Avocet: Reports from five counties. Reported April 25 in Vernon County (Lesher) and in Sheboygan County (Koopman). The latter saw 20 standing in shallow water; several reports from Columbia County (Richter) and in Dane County May 6 (Vogelsang).

Wilson's Phalarope: Earliest report April 17 in LaCrosse County (Rosso); Barger reports a good flight in Jefferson County April 30. Latest departure date May 24 in Columbia County (Tessen).

Glaucous Gull: Still present in the Milwaukee area at the beginning of the period

and seen by several people. Last seen there April 18.

Herring Gull: Largest movements April 1-3 and April 18-26.

Ring-billed Gull: Noted in LaCrosse County March 3 and 8 (Rosso and Lesher); seen in Chippewa County April 18-19 (Robbins).

Bonaparte's Gull: Seen in LaCrosse County April 2 (Rosso); none seen in Milwaukee County until April 20 (Gustafson) but more than 500 seen on the Milwaukee-Ozaukee May Count May 17. Last observed May 27 in Sheboygan County (Koopman).

Forster's Tern: Noted in Winnebago and Adams County April 23 (Robbins); in Dane County April 21 (Ashman) and biggest movement April 25-26.

Common Tern: First reported from Kenosha County April 20 (Hamers) and in Winnebago County April 22 (Robbins); noted in Jefferson County April 25 (Stock) and in Brown County April 26 (Cleary and Columban). Great numbers reported May 25 in Milwaukee County (Gustafson).

Caspian Tern: Observed in six counties; earliest April 29 in LaCrosse County (Rosso) and last seen there May 10; present in Milwaukee County May 11 (Gustafson) and two seen there May 17 on the May Count; present in Dane County May 15-18 when four were seen by Connors.

Mourning Dove: First migrant noted in Milwaukee County March 5 (Gustafson). A nest reported March 15 in Waupaca County (Rill).

Yellow-billed Cuckoo: First report May 16 from Dane County (Ashman); reports from the majority of the counties May 16-26. Reported on three May Counts, with Stevens Point also on May 16.

Black-billed Cuckoo: Earliest report April 30 in Dane County (Vogelsang); in Milwaukee County May 4 (Strehlow); greatest movement May 9-17.

Screech Owl: Only a few reports. Earliest report May 3 (Matt and Tim Michelic) in Milwaukee County. Green, Winnebago and Brown Counties only other ones reporting.

Barred Owl: Three March reports, LaCrosse County March 1 (Rosso); March 20 in Waushara County (Greenman) and March 25 in Price County one was at a feeder (Vincent).

Long-eared Owl: Present at the beginning of the period in Milwaukee County and last seen there April 8. Reported to be nesting in Brown County April 26 (Wierzbicki); noted May 19 on the May Count (Don Follen, Sr. et al).

Short-eared Owl: Present in Milwaukee County at the beginning of the period. Several seen in Columbia County March 28 (Connors)—probably the peak of migration there. Seemed quite abundant on Buena Vista Marsh in Portage County in April and May and noted by several reporters.

Saw-whet Owl: Only two reports. April 18 in Ozaukee County (H. and H. Liebherr). May 29, a nest with four young found in Marquette County and three were banded (Lesher).

Whip-poor-will: First report from Sauk County April 24 (Lange); two noted in Portage County April 28 (Gustafson); April 29 in Brown County (Wierzbicki), and bird banded. This species was found on eight of the May Counts.

Nighthawk: Nine reports before mid-May. Peak migrations May 19-20 and May 20-26.

Chimney Swift: Earliest report from Sauk County April 18 (Lange) with migration peak there April 24-30. In other areas peak noticed as May 17-20.

Ruby-throated Hummingbird: Earliest record May 2 in Milwaukee County (Strehlow); many arrivals the second week in May. In Price County first noted May 21 and May 25; twelve were seen at one time (Vincent).

Belted Kingfisher: Well distributed by April 18.

Yellow-shafted Flicker: Found nesting March 16 in Ozaukee County (H. and H. Liebherr). First notable migration March 31. Observed in Price County April 10 (Hardy).

Pileated Woodpecker: Observed on six May Counts. Noted in eight other counties by mid-May.

Red-bellied Woodpecker: This species is continuing its northward trend. Present in Barron, Chippewa, Marathon, Portage and Rusk Counties.

Red-headed Woodpecker: Many wintered in the south and central counties. Migration dates May 9 and May 17.

Yellow-bellied Sapsucker: No March dates. Observed in many areas April 8 and as far north as Brown County. Present in northern counties by mid-April.

Eastern Kingbird: An early bird April 16 noted in Price County (Vincent); seen in Columbia County April 27 (Dryers) and in Jefferson and Lafayette Counties April 30 (Barger). Seen in most all areas before mid-May.

Western Kingbird: One seen and studied at close range in Milwaukee County May 19 (Gustafson).

Great-crested Flycatcher: Observed in four counties April 29. Well distributed by the second week in May.

Eastern Phoebe: First noted in Milwaukee County March 31 (Gustafson); reported from Price County April 8) (Hardy). Common in most areas by April 12.

Yellow-bellied Flycatcher: One seen in Winnebago County on the May Count May 9; in Dane County May 13 (Ashman); reported from Brown County May 18 (Wierzbicki).

Acadian Flycatcher: Reports from four counties. One heard May 9 in Grant County at Wyalusing Park (Gustafson) and two reported from there May 30 (Lesher); Sauk County May 10 (Lange); Brown County May 25 (Wierzbicki) (banded); Milwaukee County May 28 (Donald).

Traill's Flycatcher: Reported May 7 in Dane (Ashman) and Barron (Goff) Counties; present in most of the reporting counties by the third week in May.

Least Flycatcher: First observed on April 27 in Sauk (Lange) and Brown (Wierzbicki) Counties. On April 30 heard calling in aspens where they have nested the last two years (Richter). Well distributed by May 17.

Eastern Wood Peewee: An early arrival in Green County April 5 (Rohde), breaking the previous record by seven days. Found to be nesting in Ozaukee County April 27 (Liebherr). May 17 seemed to be peak migration date.

Olive-sided Flycatcher: Noted in Milwaukee County May 3 (Donald) and still there at the end of the period (Gustafson). Observed in Chippewa County May 16 (Robbins) and found on the Douglas County May Count May 25.

Horned Lark: Present in many counties at the beginning of the period. Migration periods given as April 5-8.

Tree Swallow: Observed in Green County April 5 (Rohde); Waupaca County April 12 a nest in yard (Rill). Migration peak April 12-14.

Bank Swallow: First noted in Columbia County April 18 (Tessen) and in Chippewa County April 25 (Robbins); many reports from April 25-28.

Rough-winged Swallow: Earliest report April 17 from Manitowoc County (Scholz); several reports April 18 from Dane and Columbia Counties. Well distributed by April 27.

Barn Swallow: Reported from five counties April 18, including Chippewa. Present in most areas April 22-26.

Cliff Swallow: First noted in LaCrosse County April 15 (Rosso); April 23 in Dane County (Ashman); April 25 in Sheboygan County (Koopman) and in Chippewa County April 27 (Robbins).

Purple Martin: First noted in Dane County April 6 (Thorne); April 7 in Barron County (Goff) and in LaCrosse County (Lesher). Found in most areas about mid-April but this species was in trouble due to the bad weather.

Gray Jay: Four noted in Forest County March 14 (Richter); seen on the Douglas

County May Count May 25. In Price County (Hardy) young were brought to the feeder. See "By the Wayside".

Bluejay: Major flights April 29 into May.

Black-billed Magpie: From Oconto County, Carl Richter reports one at the city limits April 25 in company with a number of grackles, and it remained all day. It was seen by a number of the town folks.

Common Raven: Reported from seven northern counties. Twelve were seen on the Antigo May Count.

Common Crow: Major movements April 6-12.

White-breasted Nuthatch: In Brown County, Wierzbicki reports that "they appear to be down at least in our woods. I banded one-tenth of what I did in former springs."

Red-breasted Nuthatch: Quite an invasion of this species throughout the state. They tended to linger longer than usual. Still present May 25 in Manitowoc County (Albrecht).

Brown Creeper: Twenty seen in Dane County April 18 (Tessen); two seen in Calumet County May 9 by Mrs. Fred Guenther (fide Tessen). One still present May 23 in Monroe County (Hebard).

House Wren: First report April 11 in Waukesha County (Stewart); in Chippewa County April 27 (Robbins)and in Marinette County (Lindberg).

Winter Wren: First report April 5 in Milwaukee County (Michelic); April 10 in Dane County (Vogelsang); April 11 in Portage (Lesher) and Chippewa (Robbins) Counties.

Carolina Wren: Two reports. Observed in Dane County April 23 (Ashman) and May 31, one singing in Sauk County (Tessen).

Bewick's Wren: Three reports. May 15 in Sauk County (Donald); May 16 one near Spring Green (Lange) and one singing at Adams May 29 (Gustafson).

Long-billed Marsh Wren: An early bird seen in Milwaukee County April 25 (Michelic); in Waupaca County April 27 (Rill); noted in Chippewa County May 10 (Robbins). Well distributed by May 17.

Short-billed Marsh Wren: Only one April report. In Waupaca County April 27 (Rill); in Rusk County May 7 (Robbins); observed May 9 in Winnebago, Outagamie and Brown Counties. In Marathon County May 11 thirty-eight were seen (Walkinshaw and Pugh).

Mockingbird: Reports from five counties. May 16 one seen in Outagamie County on the May Count and two were seen in Iowa County near Spring Green (Lange); May 15-16 in Calumet County seen in Mrs. Fred Guenther's yard several times (fide Tessen); May 21 observed in Brown County (Kane) southwest of Green Bay.

Catbird: Observed first in Jefferson County April 26 (Stock) and in several other southern counties by the end of April; in Chippewa May 2 (Robbins) and in Brown May 5 (Wierzbicki) Counties. Migration dates May 2-3 and May 12-17.

Brown Thrasher: As occasionally these birds winter in Wisconsin, only migration dates will be given. Most counties reported them between the dates of April 24-30.

Robin: Two dozen wintered in Ozaukee County (H. and H. Liebherr) and a nest found April 8. At least 50 wintered in Dane County (Hilsenhoff). Reported in most southern counties the first week in March and in most northern counties by the third week in March.

Varied Thrush: One still at feeder April 12 after wintering in Waupaca County (Rill).

Wood Thrush: Four April dates: April 25 in Kenosha (Hamers) and in Marinette (Lindberg) Counties; April 29 in Milwaukee County (Gustafson) and April 30 in Sauk County (Lange). Present in Chippewa County May 7 (Robbins).

Hermit Thrush: First noted in Waupaca County April 5 (Rill); in Brown County April 9 (Wierzbicki); in Barron County April 26 (Goff). Major flight April 25. Birds lingered and were present in many areas May 17.

Swainson's Thrush: Observed in Milwaukee County April 23 (Gustafson); April 27

in Dane (Vogelsang) and Brown (Wierzbicki) Counties. A large wave May 17. Present in several areas at the end of the period.

Gray-cheeked Thrush: Present in Milwaukee County April 23 (Gustafson); Dane County April 27 (Vogelsang) and Sauk County April 30 (Lange). Arrived in most other reporting counties by May 10. Latest departure May 31 in Dane County (Vogelsang).

Veery: Dane County April 24 (Ashman). In most counties by the second week in May.

Eastern Bluebird: First reported from Waushara County March 3 (Greenman) where they continue to thrive; in Sauk County March 7 (Lange). April 15 reported as greatest movement. Stewart reports none seen in Waukesha County. N. R. Barger reports it a poor year in all counties visited.

Blue-gray Gnatcatcher: First noted in Dane County April 25 (Hilsenhoff); April 27 in Ozaukee County (Bintz); April 30 in Sauk County (Lange) and in Milwaukee County (Donald).

Golden-crowned Kinglet: Two March dates: Milwaukee County March 5 (Strehlow) and March 15 in Chippewa County (Robbins). Appeared in most areas during the April 8-12 period. Still present in Ozaukee County May 3 (Liebherr).

Ruby-crowned Kinglet: Observed in Dane County April 8 (Hilsenhoff); Kenosha County April 9; in most areas from April 11 to 18. Large waves April 25-26 and May 6-8. Still present in many areas May 17, and observed May 24 in Milwaukee County (Gustafson).

Water Pipit: Reports from six counties. Winnebago County April 23 (Robbins); in Dane County May 5 (Vogelsang); three seen in Milwaukee County May 8 (Gustafson); May 8 in Racine County (Gustafson) and in Chippewa County (Robbins); in Marinette County May 19 (Lindberg).

Bohemian Waxwing: March 1 in Chippewa County (Robbins) one seen and heard near Holcombe; four seen in Barron County April 7 (Goff).

Cedar Waxwing: Several wintered in Dane County (Hilsenhoff). General movement May 29, about 100 seen in Milwaukee County May 29 (Strehlow) and more than 50 seen in Monroe County (Hebard) on the same date.

Northern Shrike: Reports from six counties. Sauk County was the most southerly. Tom Nicholls reports one March 16 in Waushara County. The bird flew across the road carrying a meadow mouse. It tried to impale the mouse on a thorn. The latest date April 1 another one was observed in Waushara County by Tessen.

Loggerhead Shrike: The earliest report April 21 in LaCrosse County (Rosso); reports from seven counties. Found in Sauk County May 6 (Gustafson) and were nesting there May 31 (Tessen).

White-eyed Vireo: One sighted and heard singing in Milwaukee at Whitnall Park April 29 (Gustafson). Observed at six feet and had all field marks, including white eye.

Bell's Vireo: Several seen May 6 in LaCrosse County (Rosso). Found in Dane County May 10 (Ashman) and May 31, one singing in the arboretum (Tessen). Reported May 9 in Lafayette County (Barger), in Kenosha County on the May Count (Hamers) and in Winnebago County on their May Count.

Yellow-throated Vireo: Noted April 28 in Sauk County (Lange) and April 29 in Iowa County (Hilsenhoff). Appeared in several counties the following week. The most northern counties reporting was May 7 in Chippewa (Robbins) and May 23 in Price (Vincent).

Solitary Vireo: First observation April 30 in Chippewa County (Robbins); May 2 in Milwaukee County (Gustafson and Hanbury) and Brown County (Wierzbicki). Still present May 17 in Milwaukee, Ozaukee and Waukesha Counties.

Red-eyed Vireo: First observed April 29 in Milwaukee County (Gustafson); in Marinette County May 8 (Lindberg); in Price (Vincent) and Barron (Goff) Counties May 25. A nest found in Ozaukee County May 18 (Liebherr).

Philadelphia Vireo: First observation April 29 in Dane County (Ashman) and May 7 in Milwaukee (Donald) and Jefferson County (Stock). Found on the Antigo (Langlade County) May Count May 17. Last observations May 28 in Outagamie County (Tessen)

and Milwaukee County (Donald). The April 29 date ties the early arrival date of R. B. Dryers in 1952.

Warbling Vireo: First reports April 29 in Dane County (Ashman, Vogelsang) and in Sauk County (Lange). In most southern and central counties the first week in May. In Waupaca County a nest found May 1 (Rill). May 17 reported in many counties including five May Counts.

Black and White Warbler: Reported April 26 in Sauk, Manitowoc and Milwaukee Counties. Seen in most northern counties about mid-May.

Prothonotary Warbler: Reports from eight counties. The first was Milwaukee County May 3 (Donald). Reported May 25 on the Douglas May Count which should be well out of its range.

Worm-eating Warbler: Three reports: April 30 in Milwaukee, in Kletsch Park (Gustafson); May 3 in Kenosha County (Hamers) and in Ozaukee County May 10 (Donald).

Golden-winged Warbler: Observed April 29 in Milwaukee County (Gustafson) and in Dane County (Hilsenhoff); general movement May 8-10.

Blue-winged Warbler: Two birds eating and flying together in Sauk County (Lange) on April 28, which ties the record of 1964; April 29 in Dane County (Ashman) and in Milwaukee County (Gustafson); seen on the Stevens Point May Count May 16.

Brewster's Warbler: Three documented reports: May 7-17 in Sauk County (Lange); in Winnebago County May 9 on the May Count and in Milwaukee County May 17 (Gustafson).

Tennessee Warber: First noted in Dane County April 28 (Hilsenhoff); seen by several observers in Milwaukee and Dane Counties April 29. General movement May 10-16. Latest departure May 30 in Chippewa County (Robbins).

Orange-crowned Warbler: First observation in Dane County April 22 (Hilsenhoff); in LaCrosse County May 26 (Rosso); May 27 in Sauk County (Lange) and in Brown County (Wierzbicki), and was banded. Observed in Douglas County May 25 on the May Count.

Nashville Warbler: Observed in three counties April 28, the northernmost being Chippewa (Robbins). The first migratory wave May 7 and the last May 17.

Parula Warbler: First noted in Dane County April 29 (Ashman, Hilsenhoff); present in Chippewa County May 9 (Robbins) and in Shawano County May 11 (Braun). Present in most areas by mid-May. Only report from the far north was Douglas County on the May Count May 25.

Yellow Warbler: First observed in Milwaukee County April 24 (Hanbury); reports from many areas during the period April 26-30; found in Oconto County April 27 (Richter) and April 30 nests found in Waupacka County (Rill); present in Price County May 2 (Vincent).

Magnolia Warbler: Observed first in Milwaukee County April 28 (Strehlow) and April 30 in Dane (Ashman) and Brown (Cleary and Columban) Counties. Present in most reporting areas by May 13. General movement May 16-17.

Cape May Warbler: Observed in Ozaukee County April 30 (Bintz), which ties the date set in 1941; seen in Outagamie County May 5 and in Milwaukee County May 4 (Donald); noted in most areas by May 10 including Chippewa, Rusk and Price Counties. Peak of migration May 17. Still present at the end of the period in Marinette County (Lindberg).

Black-throated Blue Warbler: First observed May 3 in Milwaukee County (Gustafson, Hanbury, Michelic); May 7 in Dane (Ashman) and Brown (Wierzbicki) Counties; peak of migration was mid-May. Latest observation May 25 in Waukesha (Stewart) and Douglas (May Count) Counties.

Myrtle Warbler: Reported April 8 in Dane and Milwaukee Counties by several observers. Noted in Chippewa County April 11 (Robbins); in Brown County April 8 (Wierzbicki), and banded. First migratory wave April 23-25 and second May 6-9.

Black-throated Green Warbler: First noted in Kenosha County April 25 (Hamers)

and April 26 in Brown County (Wierzbicki); bird banded. Migration dates May 2 and 17.

Cerulean Warbler: First observed in Milwaukee County April 29, which ties the record set last year by Kenneth Lange. Noted in Sauk County May 4 (Lange); in Dane County May 7 (Vogelsang); not seen until May 13 in LaCrosse County (Rosso). Observed May 17 on the Wausau May Count.

Blackburnian Warbler: Observed April 29 in Milwaukee County (Gustafson) and in Sauk County (Lange), which ties the record set in 1916 by A. W. Schorger. Seen in Price County May 3 (Robbins). General movement May 16-17.

Chestnut-sided Warbler: Observed May 2 in Milwaukee County (Strehlow) and in LaCrosse County (Rosso); seen in Brown County May 8 (Wierzbicki) and in Rusk County May 10 (Robbins). Peak migration date May 17.

Bay-breasted Warbler: First noted in Ozaukee County May 1 (Bintz); May 2 in Milwaukee (Strehlow) and Sauk (Lange) Counties; peak migration dates May 16-17. Still present in Brown County May 31 (Wierzbicki).

Blackpoll Warbler: Observed April 29 in Sauk (Lange) and Dane (Ashman) Counties; noted in Barron County May 8 (Goff); in Price County May 14 (Hardy); in Marinette County May 16 (Lindberg). Still present in Dane County (Hilsenhoff) May 29 and in Chippewa County May 30 (Robbins).

Pine Warbler: First observed in Chippewa County April 25 (Robbins); in Dane County April 28 (Hilsenhoff); an adult male seen in Sauk County April 29 (Lange). Not seen in LaCrosse County until May 13. Reported on seven May Counts.

Prairie Warbler: A rarity observed May 15 in Sauk County (Donald).

Palm Warbler: Early reports of April 10 in Dane County (Vogelsang) and April 23 in Sauk County (Lange). Appeared in many counties before the end of the month. Large numbers reported in Racine County May 12 (Walkinshaw and Pugh). Migration peaks May 2-6 and May 17. Still present in Ozaukee County May 30 (Liebherr).

Ovenbird: First observed April 24 in Milwaukee County (Gustafson); April 26 in Ozaukee County (Bintz); April 28 in Sauk County (Lange); found April 29 in Dane, Brown and Richland Counties. Peak migration date May 17.

Northern Waterthrush: First observed in Dane County April 23 (Ashman), April 24 in Milwaukee County (Hanbury); April 25 in Kenosha County (Hamers); noted in Brown and LaCrosse Counties April 27. Migration waves May 2-5 and May 17.

Louisiana Waterthrush: First observed April 17 in Sauk County (Lange); April 24 in Dane County (Ashman); April 25 in Chippewa County (Robbins). Seen in Wood County May 22 (Robbins) and in Brown County May 17 on the Green Bay May Count. General migration dates May 17-18.

Kentucky Warbler: Observed in Grant County May 9 (Gustafson, Hanbury); May 3 in Milwaukee County (Donald) and in Dane County (Ashman); a male observed at close range in Sauk County May 31 (Tessen).

Connecticut Warbler: First observation May 3 in Milwaukee County (Michelic) and still present there May 31 (Donald); noted in Monroe County May 5 (Hebard); still present at the end of the period in Rock (Brakefield), Chippewa (Robbins), Counties. Observed on four May Counts.

Mourning Warbler: First observed in Dane County May 8 (Ashman); May 9 in Brown, Chippewa, Milwaukee and Winnebago Counties. Still present in LaCrosse County at the end of the period (Rosso). Noted on nine May Counts.

Yellowthroat: Observed in LaCrosse County April 20 (Rosso); April 27 in Kenosha (Hamers) and Chippewa (Robbins) Counties. Present in most counties the first part of May. Migration dates May 6-9 and May 17.

Yellow-breasted Chat: Found May 16 in Lafayette County (Barger); May 17 in Milwaukee (Gustafson) County and on the Milwaukee-Ozaukee and Sheboygan North May Counts. One singing at the arboretum in Dane County May 31 (Tessen) and also one singing in Sauk County south of Honey Creek on "C" on May 31 (Tessen).

Hooded Warbler: One observed well at four feet in Milwaukee County May 5 (Gustafson)

Wilson's Warbler: First observation May 1 in Sauk County (Lange); May 5 in Milwaukee County (Donald); May 7 in Dane County (Vogelsang) and May 9 in Winnebago County (Tessen). Arrived in other areas by mid-May. Still present at the end of the period in Milwaukee, Marinette and Brown Counties.

Canada Warbler: An adult male seen in Sauk County April 30 (Lange) which beats by one day the record set in 1942 by Earl Mitchell. No other arrivals until about ten days later. The greatest movement was on May 17.

Redstart: First noted in Dane County April 28 (Hilsenhoff); April 29 in Milwaukee (Donald) and LaCrosse (Rosso) Counties. Observed in Kenosha County May 2 (Hamers) and May 7 in Brown County (Wierzbicki). Migration dates May 8-9 and May 17.

Bobolink: First noted in Green County April 28 (Rohde); April 29 in Chippewa County (Robbins) and in Rock County April 30 (Mahlum). Migration dates May 3 and 17.

Eastern Meadowlark: March 3, first song noted in Dane County (Hilsenhoff). Present in most southern and central counties by March 17. Found in Barron County March 21 (Goff). A nest found in Ozaukee County April 5 (Liebherr).

Western Meadowlark: Migrants arrived earlier than the Eastern. Reported from several areas by March 7. One found on the Wausau May Count on May 17.

Yellow-headed Blackbird: Noted April 11 in Columbia County (Gustafson); in Brown County April 26 (Cleary and Columban) and also in Brown County on May 10, observed in the village of Pulaski (Wierzbicki); on May 17, forty were seen near Green Bay (Tessen); in Langlade County a male seen May 30 and believed to be the first for that county (Schimmels).

Redwinged Blackbird: First report from Waushara County March 3 (Greenman) and appeared in many counties within the next few days. Migration dates March 5-7 and March 23-26.

Orchard Oriole: Observed in Milwaukee County May 7 (Donald) and in Columbia County (Dryers). Seen in LaCrosse County May 9 (Lesher). Reported May 10 from Sheboygan County (Scholz). A nest reported at the end of the period at Whitnall Park in Milwaukee County (Gustafson); he also reports the sighting of two in Sauk County north of Spring Green.

Baltimore Oriole: This species was much earlier this year. First report April 20 in Milwaukee County (Michelic); in Kenosha County April 25; in many counties April 28-29; in Chippewa County May 7 and in Price County May 15. In Outagamie County, Bradford writes "May 6, Orioles arrived **en masse".**

Rusty Blackbird: First migrants appeared April 11 in many areas including Chippewa County. They lingered longer than usual as they appeared on five of the north central May Counts May 16-19.

Brewer's Blackbird: First noted from Barron County March 19; in Waushara County April 3 (Greenman). Migration dates April 21-26.

Common Grackle: Appeared in many counties the first week in March. Noted in Rusk County March 1 (Robbins). A nest found in Ozaukee County March 22 (Liebherr). In Price County (Hardy), a grackle with half its tail feathers snow white. Migration dates March 10-13 and March 23-27.

Brown-headed Cowbird: It is hard to record this species since Harold Mathiak has banded so many wintering birds at Horicon (he captured one of **my** birds—Ed.). It was reported in the southern tier of counties in late March and in the central tier of counties in early April. Appeared in Langlade County April 11 (Schimmels). Largest northward movement April 14-15.

Scarlet Tanager: First report from Ozaukee County April 28 (Liebherr); Dane County April 29 (Ashman) and Milwaukee County April 30 (Gustafson) with the encouraging words 'very good numbers this year'. Found in Brown, Barron and Chippewa Counties May 7. General migration dates May 9-10 and May 17.

Summer Tanager: May 6, Harold Bauers picked up a male bird on a downtown street in Milwaukee. It was alive but in a state of shock. It died an hour later. It is now mounted and in the rare Wisconsin records case at the Milwaukee Public Museum.

Cardinal: Reported from Barron & Langlade Counties where this species is not common.

Rose-breasted Grosbeak: Males arrived in Vernon County (Webster) and Sauk County April 26 (Lange) and the females arrived May 4. Noted in Brown (Wierzbicki) and Shawano (Braun) Counties April 29; in Dane County April 27 (Vogelsang); in Waushara County April 30 (Greenman). It was interesting to see them feeding at the same feeders with their northern cousins—the Evening Grosbeaks. Peak migration dates May 7-8 and May 17.

Indigo Bunting: Earliest report April 26 in Vernon County (Weber); April 30 Dane (Vogelsang) and Iowa (Ashman) Counties. Seen in most central and near north counties by May 8. Peak migration date May 16-17.

Dickcissel: First observed in Green County April 26 (Rohde); in Dane County May 2 (Ashman); did not appear in other reporting counties until almost two weeks later.

Evening Grosbeak: Present in most areas at the beginning of the season. After the big winter invasion of this species, they lingered longer than usual. Still present in Waushara County May 14 (Greenman) and noted on the Stevens Point May Count May 16.

Purple Finch: Present in many areas at the beginning of the period. The northward push was the period April 8-11 and April 23-30. Still present in Milwaukee and Ozaukee May 17 during their May Count. May 28, young were found in Langlade County (Schimmels).

Pine Grosbeak: Only one report (Outagamie County) when sighted by Bradford.

Hoary Redpoll: Three reports. One seen March 1 in Kenosha County (Tessen)—all marks; March 15 in Rusk County (Robbins); in Brown County April 8 (Wierzbicki), and banded.

Common Redpoll: This was a good season for this species. They frequented many feeders. Migration north March 14-15 and April 5. Departures April 24 in Milwaukee County (Michelic); ten seen in Sauk County May 3 on "PF" (Tessen). The previous departure record was May 21 in 1956 by Ed Cleary.

Pine Siskin: Present in many counties at the beginning of the period. Northward movement April 20-23 and May 16-17. Late departures: May 27 in Milwaukee County (Gustafson); May 28 in Manitowoc County (Scholz) and 6-8 still coming to feed May 29 in Langlade County (Schimmels).

American Goldfinch: Present in most areas all winter. General northward movement April 12 and May 20-23.

Red Crossbill: Present in Milwaukee County all season (Donald); present until May 8 in Dane County (Hilsenhoff) and in Langlade County (Schimmels); also present May 18 in Ozaukee County (Liebherr).

White-winged Crossbill: Two reports by Tessen: Two seen March 20 in Outagamie County and two seen April 1 in Waushara County.

Rufous-sided Towhee: A wintering bird in Milwaukee County; April 23 the first migrants (Gustafson). Present in Ozaukee County April 9 (Liebherr). Appeared in most southern and central counties by April 25. Noted in Price County April 30 (Hardy) and in Rusk County May 3 (Robbins).

Savannah Sparrow: Appeared in Dane County April 11 (Hilsenhoff); in Green County April 14 (Rohde), beating the record date of April 17, 1966 by Bill Weber. Arrived in most reporting counties by April 24. Migration dates April 17-26.

Grasshopper Sparrow: Arrived in Door County April 17 (McCombe); in Jefferson County April 29 (Stock) and in Sauk County May 2 (Gustafson). Present in most areas by mid-May.

Le Conte's Sparrow: Reported in Chippewa County April 27 when three were sighted (Robbins) and May 31 in Rusk County (Robbins); May 30 in Langlade County (Schimmels).

Henslow's Sparrow: Observed in Portage County April 28 (Gustafson); April 29 in Jefferson County (Stock); in Dane County April 30 (Vogelsang). Noted a week later in Brown and Chippewa Counties.

Vesper Sparrow: Noted in LaCrosse County (Rosso) and in Waushara County (Greenman) April 8; present in Barron (Goff) and Chippewa (Robbins) Counties April 11; in Marinette County April 18 (Lindberg).

Lark Sparrow: Observed in Chippewa County May 7 (Robbins); May 9 in Grant County (Gustafson) and Sauk County (Hanbury). Found in Sauk County May 31 on "PF", three birds (Tessen).

Slate-colored Junco: Migrants arrived in Chippewa County March 25 (Robbins); April 5 in Rusk County (Robbins); April 8 in Price (Hardy) and Marinette (Lindberg) Counties. Still present in the Milwaukee area May 17.

Oregon Junco: Twelve reports from 9 counties. Present in Dane County March 11 (Ashman); Rock County March 2 (Brakefield); Brown County April 17 (Cleary and Columban). Latest departure in Outagamie County April 23 (Tessen).

Tree Sparrow: Migration dates March 30 and April 11-12. They lingered longer than usual. Found May 17 on the Antigo May Count; the Wausau May Count and the Douglas County May Count May 25.

Chipping Sparrow: Noted April 8 in Milwaukee County (Michelic); April 9 in Dane County (Ashman); April 18 in Chippewa County (Robbins); Marinette County April 25 (Lindberg); Price County May 1 (Hardy). Migration peak April 26-29.

Clay-colored Sparrow: First noted in Shawano County April 24 (Braun); April 29 in Dane County (Ashman); April 30 in Chippewa County (Robbins); May 7 Barron County (Goff). Present in most counties by the third week in May.

Field Sparrow: Reported from Green County (Rohde) April 3; April 8 in Dane County (Vogelsang) and Milwaukee County (Donald); Marinette County April 25 (Lindberg) and Chippewa County (Robbins). Migration dates April 19 and April 26-27.

Harris' Sparrow: Earliest date April 18 Price County (Vincent); in Rusk County May 10 (Robbins); May 12 in Milwaukee County (Donald) and Ozaukee County (Bintz)—fed at a feeder for about a week. Three seen on the Oshkosh May Count May 9 and seen May 17 on the Green Bay May Count. In Waupaca County, in Clintonville one at a feeder all winter (Rill) and last seen April 24. Seen in Waushara County May 16-17 (Greenman). The latest departure May 23 (2) in Price County (Hardy).

White-crowned Sparrow: Appeared in the central counties April 23-25. A very early arrival of April 12 in Price County (Vincent). Seen in Marinette County April 30 (Lindberg) and in Chippewa County May 2. A Gambel's White-crowned seen in Lafayette County May 16 (Barger). Migration May 5-7 and May 16-17. Last observation May 30 in Ozaukee County (Liebherr).

White-throated Sparrow: Appeared in Price County April 15 about ten days before it appeared in the central counties (Vincent). Several wintered in Outagamie County (Tessen). Appeared April 25 in many counties. Migration pattern April 23-27 and May 5-9. One still present in Sauk County at Honey Creek May 31 (Tessen). Barger reports that this species seemed scarce this year.

Fox Sparrow: Noted March 7 in Dane County (Hilsenhoff) and appeared in many counties including our northern section April 8-9. Peaks of migration April 8-15. Observed in Brown County (Cleary and Columban) and in Outagamie County (Mrs. Defferding—fide Tessen) on May 9. Present in Douglas County on May 25 on the May Count.

Lincoln's Sparrow: First observed April 27 in LaCrosse County (Lesher); April 30 in Dane County (Ashman); May 3 in Milwaukee County (Gustafson); May 7 in Outagamie County (Tessen); May 10 in Chippewa County (Robbins). Noted on five May Counts. Latest departure May 24 in Outagamie County (Tessen).

Swamp Sparrow: Noted March 5 in Milwaukee County (Strehlow); arrived in several counties April 11 including some northern areas; present in many counties April 25-26 which seemed to be the peak of migration.

Song Sparrow: Observed April 1 in Marinette County (Lindberg); April 2 in Chippewa County (Robbins); April 8 in several counties. April 7 nests found in Waupaca County (Rill).

Lapland Longspur: Present in Dane County March 28 to April 11 (Hilsenhoff) and also on March 28 in Outagamie County (Tessen) and thirty noted there May 9. April 11, noted in Columbia County (Gustafson), Portage County (Lesher) and Langlade County (Schimmels), some mixed with Snow Buntings. Observed April 8 in Brown County (Wierzbicki). April 7, in Clark County, 500 plus seen by (Schimmels); all flew up when a Kestral flew over. Still present in Columbia County May 2 (Gustafson).

Snow Bunting: Observed March 18 in Outagamie County (Bradford); March 25 in Marinette County (Richter) and on April 11, Schimmels reports two different flocks in Langlade County, one flock of fifty and the other 150-200.

By the Wayside . . .

By IRMA CHIPMAN

BOHEMIAN WAXWINGS IN BARRON COUNTY

On April 7, 1970 we had just returned home. It was a nice day; the temperature was about 50 degrees. We spotted four birds we thought were Cedar Waxwings in a Hopa crab tree about 20 feet from our front door. I was glad I gave them a second look because I noticed the undertail coverts were not white but a rusty brown color. We got out our glasses and noted the white, yellow, and black wing markings. They stayed for about two hours eating the crab apples. It was about four in the afternoon when we first saw them so we had plenty of time to confirm they were Bohemian Waxwings. — Alta Goff, Route 1, Hillsdale, Wisconsin 54744, Barron County.

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A CLOSER LOOK AT THE YELLOW-CROWNED NIGHT HERON

On Saturday, April 11, 1970, a warm spring day that later turned to a blustery, cold day in the afternoon, I discovered the Yellow-crowned Night Heron. This unusual visitor was found in a small, wooded marsh located three miles south of Madison. The discovery of this rare and beautiful bird was both a shock and a delight. The beauty of the day beckoned and I and my Brittany Spaniel, Fritz, set off for a hike. As I approached the woodland marsh from an adjacent drainage ditch, I noticed that Fritz, by running ahead, had frightened some large bird which immediately flew for protection into the adjacent woods. With my binoculars, I scanned the area for any sign of the bird. I then walked into the small woods surrounding the marsh area and was immediately struck by the appearance of the large heron sitting on top of a dead tree not fifty feet from the spot where I stood.

I simply could not believe what I was seeing. I carefully positioned myself in a clump of grey deadwood shrubs and intently watched the beautiful bird sitting against a background of suddenly present, violent, moving clouds as the wind blew from the east. It was a rare moment of beauty and charm as I sat watching the solitary heron in all his breeding finery, gracing the dead elm upon which he stood. His glossy black head is splendored with a whitish crown and white cheek patches. His body is streamlined with slate-gray feathers, and his movements are fluid and graceful. He flew down from the elm and landed in an open area about twenty feet from me.

The next morning I came back with State Naturalist George Knudsen and his son, Jeff, who also wanted to see the heron. We had returned with the hope that he had remained overnight, and we were not to be disappointed. Again, he was there, this time amidst the chilling rain and wind of the early April morning. We looked, we enjoyed, and we returned home, all of us, our lives having been brightened and enriched by the sight of the Yellow Crowned Night Heron. — Roger Monthey, R#1, Verona, Wisconsin.

SNOWY EGRET SEEN AT PORT WASHINGTON

I am writing this for my son, David, as he is only eight years old. David, my husband Tom, and I saw the Snowy Egret but David spotted it first as he was home and we were out in the woods east of our home – birding. So luckily we had binoculars with us and had just stepped into a clearing as it flew over.

It was flying southeast just in advance of a cold front and storm system that was about a mile from Lake Michigan. The Weather Bureau had issued a tornado watch that day also.

It was flying just about the electric power company lines and its golden slippers were easy to see even without binoculars. My husband even remarked that its neck looked different in the manner in which it was folded compared to the Great Blue Herons we had seen. It seemed to have a bigger hump or folded its neck more tightly. So after checking our field guides (we had joined WSO last summer) we decided it had to be the Snowy Egret.

We saw it near the Schmitz Ready Mix gravel pit in Port Washington sometime between two and four p. m.

As far as I know we are the only three people that sighted it. – Mrs. Thomas Bintz, R#1, Port Washington, Wisconsin 53074.

* * * * *

A POSSIBLE SIGHTING OF A BLUE GROSBEAK

On May 10, while out birding about sunset, I came upon a deep blue, heavy-billed bird, splotched with brown. I had noted the Blue Grosbeak many times in "Peterson's" so turned to that page at once. This fellow matched the description perfectly – for an immature male, but I noted that his range is well to the south of us. We see Indigo Buntings here occasionally, but from the very beginning, it was obvious this was a sturdier, larger, heavier-billed bird. At about ten feet and using binoculars, I was able to watch him jump in and out of a large pile of logs for at least five minutes or more. When I find Peterson's range does not include us, and the bird does not appear on your report form, I usually check with Owen Gromme's "Birds of Wisconsin." He does not show the Blue Grosbeak, but Sam Robbins assures me that Wisconsin has had at least a dozen sight records.—Mrs. Lawrence B. Maurin, Route 6, Box 81, West Bend, Wisconsin 53095.

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GRAY JAYS BRING YOUNG TO FEEDER

I made a close observation of the Gray Jays during this period as it was suspected they were nesting in the area. They appeared daily for bread at our feeders.

On May 26, two adults brought one young to the feeder. They came for four days. The young fluttered its wings to be fed. It was slaty gray, with a trace of white across the tip of the tail. It had a wide mouth yet and looked like an overgrown Purple Martin. On May 27 we saw another Gray Jay adult with one young at Camp Seven Creek – two and one-half miles north of our home. On May 28 the adults again brought one young to the feeder and to the water dish.—Maybelle Hardy, R#1, Box 263, Park Falls, Wisconsin 54552.

LITTLE BLUE HERON IN FIRST YEAR PLUMAGE

On April 4, 1970 I saw a medium-sized heron. It was white with big patches of blue on the back and wings. The bill was blue, tipped with black. The legs were a bluish color.

It was about 6:15 in the morning when I saw it. The area was a small cattail marsh. The temperature was in the sixties with a strong southwest wind. The marsh was next to some sand dunes right off Kenosha on Lake Michigan.

I identified it as a Little Blue Heron in first year plumage.—James Hamers, 77-17 6th Ave., Kenosha 53140.

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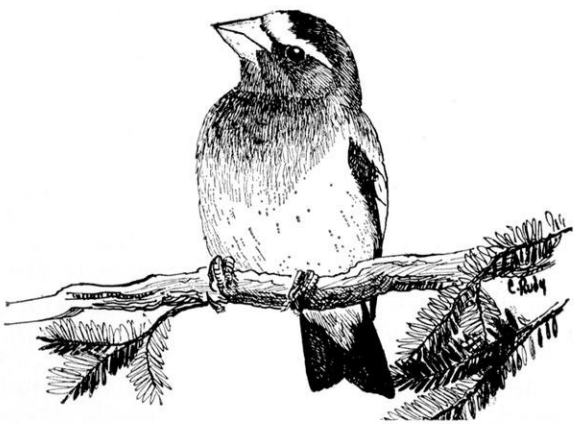
A POSSIBLE SIGHT RECORD OF BELL'S VIREO IN VERNON COUNTY

We had been working on our 40 acres in Arland Township on the Sunday of May 24, 1970 when my daughter and I decided to take a walk to the southwest corner where there is a grove of maple, hickory, and butternut with hazel bushes around; it is a quiet spot to sit. We noticed two birds working in the trees close by. Using our 7x50 glasses we always carry, I focused on one and noticed he had faint white wingbars, a light eye ring with a black eye. The breast was white, with the sides and under tail coverts a light yellow, and the back an olive green. I quickly consulted my book, **Birds of North America** by Robbins, et al and confirmed that I had seen a Bell's Vireo. We watched till he disappeared in the bush. The other bird was a Red-eyed Vireo. Neither one sang as they were busy feeding. It was 3:10 p. m., a sunny day and we viewed the bird from 20 to 25 feet away.—Alta Goff, R#1, Hillsdale, Wisconsin 54744, Barron County.



The 1970 May Count

There were seventeen May counts this year and most had clear to partly cloudy skies. The weather in most cases was moderate with Appleton counts #1 and #2 experiencing showers. Ten counts were taken about mid-May when the warbler migration was at its peak. They came up with 236 species with another 22 species observed during the period to make a grand total of 258 species. All species of warblers on the Wisconsin check-list were observed during the period, including the Prairie Warbler which was observed by Mary Donald in Sauk County on May 15. All vireos on the check-list were observed with the exception of the White-eyed.

The 1970 May counts of Milwaukee and Stevens Point were not received and it is with regret as these generally produce some interesting species. Stevens Point had a total of 132 birds in 1970; I do not have the figures for the Milwaukee count.

Many interesting species were sighted in 1970 and will be included in the Spring Field Notes.

Milwaukee and Ozaukee Counties: 167 species. May 17; hours from 4 a.m. to 6 p.m.; 25 observers; temperature 40° to 60°; sky clear to partly cloudy. Of interest were: Hermit Thrush, Louisiana Waterthrush, Yellow-breasted Chat, Slate-colored Junco and Harris' Sparrow. Twenty-nine species of warblers were seen as were five species of vireos. In spite of the early start no owls were seen or heard. Mary Donald reporting.

Appleton #1: 163 species; May 9; hours 4 a.m. to 8 p.m. Sky: variable cloudiness with a few showers in the afternoon. Wind: calm to SW 20 mph. Temperature: 50° to 82°. Nineteen observers. Area covered: Approximately a 30-mile diameter circle centered in Appleton, to include Neenah, Menasha, Shiocton, Greenville, Kaukauna, Kimberly, Little Chute, Hortonville and New London. Four species of vireos, 12 species of warblers and 19 species of shorebirds, including 150 Greater Yellowlegs and 200 Lesser Yellowslegs, and thirty Lapland Longspurs still present. This is an energetic group which also did another count on May 16. Daryl Tessen reporting.

Appleton #2. 165 species; May 16; area the same as above. Sky: party cloudy to cloudy and some showers. Temperature: 40° to 55°. Reports were rather consistent, with no flycatchers noted on the first count, but four species noted on the second. Also, no Red-breasted Nuthatches reported, but with 10 on the first count. Of great interest was a Mockingbird and a Rusty Blackbird; four species of vireos, 15 species of warblers, and 15 species of shorebirds. Daryl Tessen reporting.

Oshkosh: 145 species and one subspecies; May 9; hours: 5:30 a.m. to 9:30 p.m. Sky: partly cloudy; temperature: 55° to 75°. Twenty-eight participants in twelve parties. Area covered: a 7½-mile radius of intersection of routes 41 and 21 at west edge of Oshkosh. Documented and of great interest was a Bell's Vireo, Brewster's Warbler, Hudsonian Godwit and a Short-billed Dowitcher. The latter was flushed to elicit vocalizations. During count period two Marbled Godwits were seen in a field

near Oshkosh by Mrs. Eunice Fisher. Of interest, too, were 1,009 Bank Swallows as this species was reported less frequently this year. Jack Kaspar reporting.

Green Bay: 144 species; May 17; 5 a.m. to 8:30 p.m. Area covered: DePere, Green Bay, Pt. Sauble, Lily Lake and Fairchild areas. Twenty-three members of the Green Bay Bird Club participated. Twenty-one species of warblers were seen. Of special interest were: Golden Plover, Wilson's Phalarope, Golden-crowned Kinglet, Golden-winged Warbler, Harris' Sparrow, Yellow-crowned Night Heron and a Purple Sandpiper. This is the first time a Yellow-crowned Night Heron has been seen on their May Count. The Purple Sandpiper was seen last year in the area for the first time. E. W. Strehlow reporting.

Waukesha: 143 species; May 17; 5:30 a.m. to 1:00 p.m. Area covered: within 15 miles of the city. Sky: clear; wind: W 5-10 mph; temperature: 50° to 75°. Of note were: Common Egret, 26 species of warblers, 13 species of sparrows and 8 species of blackbirds. Walter Klug reporting.

Beloit: Ned Hollister Bird Club. Data taken from "The Flyer"; 141 species; May 10; 30 observers. Highlight was the sighting of unusually large numbers of Black-crowned Night Herons. Of interest were 7 species of flycatchers, 25 species of warblers and 9 species of blackbirds.

Douglas County: 141 species; May 25, by five observers. 3:30 a.m. to 8:00 p.m. Sky: clear to partly cloudy; wind: SW 15-20 mph. temperature: maximum 59° and 49° minimum. Ground: open fields to heavy-wooded area, lakes and rivers. Of special note were: Piping Plover and Knot; also 21 species of warblers and 10 species of sparrows. (Glad to see the Gray Jay represented – Ed.).

Portage County (Stevens Point): 139 species; May 16 over a 24-hour period. Area covered: All of Portage County and Mead Wildlife Area which includes portions of Wood and Marathon Counties. Weather: cool, windy and rainy. Temperature: ranged from 47° to a high of 50° with winds up to 25 mph; rain slight but drizzle during morning with heavy fog in some areas. There were 23 observers. Comments: Species in more abundance than usual: Mallard ducks—"in every body of standing water, Chestnut-sided Warblers, Cape May Warblers, Cormorants—four at Mead, 16 on Du Bay heron rookery, White-crowned Sparrows, Red-breasted Nuthatches—unusual to see five to six individuals, and Pine Siskins—one flock seen day before count numbered 100 individuals." Species seen for the first time by some of the observers were: Parula Warbler, Blackburnian Warbler and Golden-winged Warbler. Species seen just before and after Count Day: Green-winged Teal and Turkey Vulture. Vincent A. Heig reporting.

Wausau Bird Club, Marathon County: May 17; wind—calm to 10 to 15 mph by 6 p.m. Temperature: 40°-70°. Sky: clear and sunny. Number of species, 113. Number of observers, 26, spending a total of 116 hours. Territory covered: 50% woodland, 30% field, 15% urban and 5% water. Comments: "Our bird count seemed a bit unusual this year in that so many of our early spring arrivals were still here—White-throats, Junco, Golden-eye and Bufflehead. The Red Crossbills are nesting and have young that come to the feeder of one of our members. There seems to

be two broods—of different age. The Tuesday following our count day (May 19) there was a tremendous warbler migration—they hustled through in no time flat! It was over by noontime." Mrs. David Bierbrauer reporting.

Antigo (Langlade County): 128 species; May 17; time: 5 a.m. to 8:45 p.m. Area covered: a 15-mile radius of Antigo. Temperature: 32° and frost 5 a.m. to 70° in p.m. Skies clear with no wind to 10 mph in p.m. There were 11 observers. Of interest were: Black-crowned Night Heron, Sandhill Crane, 12 Lesser Yellowlegs, 7 Short-billed Dowitchers, Least Bittern, 17 Red-breasted Nuthatches that remained behind, the larger numbers of Eastern Meadowlarks (they usually have more Western), Evening Grosbeaks, Pine Siskins, 23 varieties of warblers and 12 species of sparrows, including the Henslow's and Tree. Lynn J. Schimmels, compiler.

Arpin: 103 species; May 19; 3 observers. Time: 6:30 a.m. to 6:30 p.m. Area covered: Arpin, Wisconsin Rapids, Meadow Valley, City Point and back to Arpin. Sky: cloudy; wind: SSW; temperature: 65°. Of interest were: Prairie Chicken, Eastern Turkey, Long and Short-eared Owls, Rusty Blackbird and Slate-colored Junco. Don Follen, Jr. reporting.

Clintonville: 90 species; May 16. Area covered: Waupaca and part of Shawano counties. Temperature: 38° to 51°. Sky: cloudy to broken. Windy. Six participants. Of interest were Turkey Vultures, Red-breasted Nuthatches, Rusty Blackbirds (closely observed), and ten species of warblers. K. D. Rill reporting.

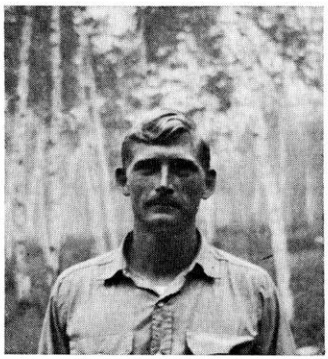
Rock and Evansville area: May 6. 78 species seen. On May 8, 11 Cattle Egrets were observed and also seen by Melva Maxson. They were located north of Janesville and were in spring plumage. Mrs. John Brakefield and Mrs. Ruth Livingood reporting.

Sheboygan County: 68 species; May date not given. Area covered: Selected spots in Sheboygan County. One observer. Ten species of warblers found. Seven species of sparrows seen. Harold Koopman reporting.

Browntown (Green County): 68 species; May 17. Hours: 5 a.m. to 8 p.m. Sky: clear; wind: 0-5 mph. Temperature: 65° to 75°. One observer. Area covered: around their farm. Twenty Flickers were seen as were 20 Red-headed Woodpeckers. Eighteen species of warblers were seen and seven species of sparrows. Wayne Rohde reporting.

Sheboygan—North: 47 species; May 17. Weather: sunshine and mild temperature with wind 6 mph. Hours: 5:30 a.m. to 7:30 a.m. and noon until 4:30 p.m. Two observers. Of interest were Yellow-breasted Chat, ten species of warblers. Mrs. Golden Bly reporting.

Songbird Communities—Comparison Of Sedge-forb Meadow & Willow Shrub Areas



By *WILLIAM S. BROOKS*, Department of Biology, Ripon College, Ripon, Wisconsin 54971

Mr. Brooks is an associate professor of biology at Ripon College. He was born (and raised) in Rockford, Illinois, on Oct. 19, 1938.

In 1959 a brief study was completed in which the songbird communities were compared in sedge-forb meadows and the adjacent willow shrub area (W. S. Brooks, 1960, **Passenger Pigeon,** 22:111-125). Another census was conducted in 1969 to investigate the changes occurring in the bird communities as a result of natural succession and maturation plant communities. Four counts were made, one each on May 25, and June 8, 9, and 13, from 5:30 to 8:30 a. m. CST.

THE STUDY AREA

The location and history of the plant communities and a map of the area, showing the censusing transects, were given in the 1960 report. The area had been free of fires and other disturbances throughout the last decade, and natural changes in the vegetation are as follows:

Sedge-forb meadow – This area, termed "the meadow" in the previous report, has changed relatively little. The major difference is that a dense stand of stinging nettle (**Urtica gracilis**), formerly present along the eastern edge, has been largely replaced by various grasses, sedges (**Carex** spp.), wild aster (**Aster** spp.), and goldenrod (**Solidago** spp.), causing the meadow to be more homogeneous. With the exception of the nettle, all grasses, sedges and forbs retain the same relative abundance that they did earlier. There are perhaps a few more small willow shrubs in the northern portion of the meadow than formerly, but the change is essentially unnoticeable. Succession has been very slow here.

NOTE: An inadvertent omission in the 1960 report is that grasses of several species were present in good numbers in the meadow, ranking second in abundance to the sedges.

Willow shrub – This area, termed "the willow" in the previous report, has changed considerably. The two stands, which were sharply separated, have now become essentially one stand. An area of shrubs with about 10% canopy closure loosely connects them. They remain distinguishable from each other, however, because the shrub cover has increased from 20% to about 75% in the south stand, and from 60% to about 80% in the north, making them both quite dense. In the earlier study the stands were somewhat arbitrarily defined as those areas with at least 20% canopy closure. The northern and western boundaries thus established have now moved outward approximately 50 feet in both stands. The eastern and southern boundaries are in very much the same position as earlier.

In addition to being very dense, there are now many dead and fallen shrubs throughout both stands, making the north stand almost impenetrable in several places. The shrubs have increased to 6-12 feet in height, averaging about 10 feet (1959 average, about 6 feet). Red-osier dogwood (**Cornus stolonifera**) has increased to the point that it must now be recognized as a contributing member of the community. Of the shrubs, it makes up about 10%, the remainder being willow. In the northern part of the north stand there are several scattered quaking aspen (**Populus tremuloides**), probably 10-15 years of age and 15 to 25 feet in height.

Species	Density (birds/100 acres)			
	Meadow		Willow	
	using actual distance	using perpendicular	using perpendicular	using actual distance
Black-billed Cuckoo **Coccyzus erythropthalmus** (Wilson)	....	....	20	20
Traill's Flycatcher **Empidonax trailli** (Audubon)	....	....	60	70
Short-billed Marsh Wren **Cistothurus platensis** (Lathem)	50	60	....	....
Catbird **Dumetella carolinensis** (Linnaeus)	....	....	20	30
Yellow Warbler **Dendroica petechia** (Linnaeus)	....	....	260	310
Yellowthroat **Geothlypis trichas** (Linnaeus)	80	100	90	60
Red-winged Blackbird **Agelaius phoeniceus** (Linnaeus)	10	90	....	....
Brown-headed Cowbird **Molothrus ater** (Boddaert)	+	+	+	+
American Goldfinch **Spinus tristis** (Linnaeus)	....	....	80	170
Savannah Sparrow **Passerculus sandwichensis** (Gmelin)	10	10	....	....
Swamp Sparrow **Melospiza georgiana** (Latham)	100	160	240	230
Song Sparrow **Melospiza melodia** (Wilson)	110	190	80	90
Total population	360+	610+	850+	980+

TABLE 1

Comparative songbird densities obtained in the meadow and in the willow shrub area in 1969, using both actual and perpendicular flushing distances.

Table 1 compares 1969 densities calculated by using both perpendicular and actual distances. The bias introduced by using perpendicular distances is greater in the meadow than in the willow. The explanation probably involves inclusion in the census of singing males which did not actually flush, but which were within 50 feet of the line (as was done in 1959). The distance of each of these birds perpendicular from the line was recorded rather than the distance from the observer to the point where the bird was first noted. These are not the same as the perpendicular **flushing** distances already discussed, and will be called "singing male distances." This was done because often the birds would be seen or heard up to 200 feet ahead, and the distances from the line compared far more

favorably with average flushing distances established for birds that actually flushed. In the open meadow singing males generally flushed as they were approached, so were counted in the usual manner, as flushing birds. In the dense cover of the willow stands, however, I would often pass within a few feet without causing them to flush. The "singing male distances" are similar to flushes directly to the side, which, as mentioned earlier, would not introduce bias into density calculations. Thus, the compared density values obtained with perpendicular and actual flushing distances differed less in the willow than in the meadow because fewer flushing males, and conversely, more singing males, were counted in the willow.

The ground cover has also changed with the increasing amount of shade provided by the shrubs. Whereas the ground cover in the south stand was mainly bluejoint grass (**Calamagrostis canadensis**), this species is almost absent within the stand, and today is found a mixture of other grasses, sedges, aster, goldenrod, smartweed (**Polygonum** sp.) and marsh fern (**Dryopteris thelpteris**). This is now similar to the ground cover in the north stand, where it has not changed appreciably over 10 years, possibly because the amount of shading has not changed quite as markedly here.

Therefore, in 10 years the south stand has, in a sense, "caught up" with the north, and now they are very similar to each other. However, in both stands the shrubby growth is more dense than it was a decade ago, so that the two are quite dissimilar to their former appearance.

RESULTS AND DISCUSSION

A brief discussion of the flushing distance method of censusing, a modification of the King Ruffed Grouse Method (see A. Leopold, 1946, **Game Management,** Chas. Scribner's Sons, N.Y.: p 151), is in order here, although it was discussed in some detail in the previous report. It was noted in that report that calculated densities were far higher than densities determined by other workers for birds in somewhat similar habitats. No good explanation could be given then, but it is now realized that at least a part of the reason was the way in which the census was carried out. In 1959 the flushing distance for each bird, **perpendicular** from the transect line being walked, was recorded, due to my misunderstanding of the method. For instance, a bird flushing 40 feet straight ahead was given a flushing distance value of 0, the number of feet it flushed from the line, rather than 40 feet, the actual distance it flushed from the observer. Thus, **actual** flushing distances were not used in the calculation of the EFD (effective flushing distance), EFS (effective flushing strip), and ESA (effective strip area). These artificial perpendicular distances are invariably shorter than the actual, as in the extreme example above, except when a bird flushes exactly to the side of the observer. Some flushes are rare, because birds usually flush somewhat ahead of the observer. By using these artificial shorter distances the ESA is calculated to be sometimes considerably smaller than it actually is. Approximately the same number of birds is involved in the density calculation, but the area is smaller, and the effect is to increase the calculated density artificially.

The actual flushing distance must be used if densities obtained with this method are to approach true density values. If, instead, the perpen-

dicular distance is used, not only are the calculated greater than the true densities, but, even more deleterious, they are greater to varying degrees, depending upon the species. Individual bias is thus introduced, compounding the overall bias already present. For example, species A may habitually flush ahead of the observer, while species B flushes mainly toward the side. Using perpendicular distances the calculated density of species A then would be much greater than its true density, while the calculated density of species B would be only slightly greater than its true density. These calculated densities would show that species A was more numerous than species B, when perhaps they were equally abundant.

The flushing distance method, using actual distances and modified to include singing males within 50 feet of the line which do not actually flush, appears to be a fairly accurate censusing method. The values obtained approximate the true densities quite well, as shown in the comparison in Table 2 (true densities were obtained as explained below).

Species	True density (birds/100 acres)	Calculated density (birds/100 acres)
Black-billed Cuckoo	30	20
Traill's Flycatcher	94	60
Catbird	62	20
Yellow Warbler	250	260
Yellowthroat	94	90
American Goldfinch	62	80
Swamp Sparrow	250	240
Song Sparrow	125	80
Total population	967	850

TABLE 2

Comparison of true with calculated densities of birds in the willow shrub area, 1969. Calculated densities were obtained using actual flushing distances.

The total population values probably do not differ significantly from each other, but if they are indeed different, the method appears to provide a conservative estimate rather than the overestimate it would if perpendicular distances were used. Table 2 may indicate that it might not be necessary to use the values merely as index values, but that they possibly can be used as true densities, especially when the density of a species is relatively high. The true and calculated densities for the Yellow Warbler and Swamp Sparrow, the two most abundant species, are amazingly comparable.

The true densities in Table 2 were obtained by determining the actual number of breeding pairs present in each willow stand, easily done because of the small size of the stands, and dividing these figures by the total acreage of the stands, as determined with a polar planimeter, from a map. For various reasons the same procedure could not be carried out in the meadow, making a comparison impossible here.

Because only data calculated by using perpendicular distances could be compared to 1959 data, both actual and perpendicular distances were recorded in 1969. Table 3 gives comparative densities for both years,

Species	Meadow					Willow				
	density (birds/100 acres) 1959	N	1969	N	increase or decrease (%)	density (birds/100 acres) 1959	N	1969	N	increase or decrease (%)
Black-billed Cuckoo	....	—	....	—	—	0	0	20	3	50
Traill's Flycatcher	....	—	....	—	—	**140**	15	**70**	12	—50
Short-billed Marsh Wren	**180**	27	**60**	21	—67	**460**	28	**0**	0	—100
Catbird	....	—	....	—	....	**20**	2	**30**	6	+50
Yellow Warbler	....	—	....	—	....	**100**	11	**310**	40	+210
Yellowthroat	**160**	23	**100**	24	—38	**160**	10	**60**	11	—62
Red-winged Blackbird	**120**	16	**90**	11	—25	**110**	4	**0**	0	—100
Brown-headed Cowbird	+	—	+	—	....	+	—	+	—	....
American Goldfinch	....	—	....	—	....	**20**	3	**170**	8	+750
Savannah Sparrow	**4**	2	**10**	2	+150	....	—	....	—	....
Swamp Sparrow	**120**	26	**160**	40	+33	**270**	13	**230**	38	—15
Song Sparrow	**220**	40	**190**	36	—14	**350**	15	**90**	14	—74
Total population		804+	—	610+	—	—24	1630+	980+	—	—40

TABLE III

Densities (in boldface) in the meadow and in the willow shrub area in 1959 and in 1969, calculated using perpendicular flushing distances. N is the total number of birds censused in each year (3 counts, 1959; 4 counts, 1969).

calculated from perpendicular distances. Several of the 1959 values are slightly different than those originally reported, due to the correction of some mathematical errors discovered in recomputation of these data.

The densities indicate that a general decrease in bird numbers has occurred in the last decade, 24% in the meadow and 40% in the willow. This is a general trend exhibited by all but a few species, and is difficult to explain in the meadow, where there has been little vegetational change. While there is absolutely no experimental basis for stating so, perhaps the decrease has to do with the persistent chlorinated hydrocarbon pesticides that appear to be accruing in our environment. It is well known that raptorial species have been decreasing sharply in numbers over the same decade, apparently in response to these residual pesticides, and it seems that the same might well have occurred with the smaller species present here, whether insectivorous or not. Although the above is strictly speculative, it is true that cropland closely surrounds and drains exclusively into the study area, and any residual pesticides used there would accumulate in this marsh.

The percent decrease in the willow, almost double that in the meadow, can probably in part be attributed to this general decrease and in part to changes in the vegetation. The magnitude of the roles played by each of these factors, however, cannot be assessed. Two species found in good numbers in the willow 10 years ago have decreased 100%, and are

no longer found there (Short-billed Marsh Wren, Red-winged Blackbird). Three have decreased at least 50% (Traill's Flycatcher, Yellowthroat, Song Sparrow). Therefore half the species present in 1959 have decreased markedly. Increased density of the shrubs and changes in the ground cover might account for these decreases. Ten years ago the habitat may have been optimal for most of these species (indicated by their very high densities then, in relation to data from other studies), while now the habitat is too dense to be optimal. The Short-billed Marsh Wren may have moved mainly because of the decrease of dense **Calamagrostis** ground cover. Most of them now reside in dense reed canary grass (**Phalaris arundinacea**) stands surrounding the willow stands.

On the other hand, one species has increased some 200% (Yellow Warbler), one 50% (Catbird), and one which was not formerly present has now become established (Black-billed Cuckoo). The more dense habitat seems to have become more optimal for these species. The American Goldfinch also increased, but was not breeding at the time of either census, and since the individuals counted were probably transients, this species will not be considered here.

Two species appeared to increase in the meadow (Swamp Sparrow, Savannah Sparrow) but in actuality the latter probably did not. It was represented by one pair, as in 1959. The birds happened to be flushed at a lesser distance during this census than they were in 1959, therefore this species has a smaller ESA and an artificially higher density (or perhaps the first was artificially lower). This illustrates the major drawback of this method, that when a species is of low density its data are misleading.

The Swamp Sparrow increased 33% and this may be significantly higher than the 1959 value (the same significance cannot be attached to the 15% decrease of this species in the willow, however, dut to the roughness of the method. When working with density values for individual species I have somewhat arbitrarily selected a 33% change as the point of significant difference between two values). The other four meadow species decreased, although the decrease for the Song Sparrow and Red-winged Blackbird are not considered significant. The decreases for the Short-billed Marsh Wren and Yellowthroat cannot be explained, but the decreases seem significant. It should be noted here that the Brown-headed Cowbird was not censused in either area because it is not territorial and also does not spend much time in the vegetation, thus is not accurately censused by the method used. Its presence was noted, however, since it does inhabit the area.

Species found in both the meadow and the willow in 1959 that changed their numbers relative to each habitat are the Short-billed Marsh Wren, Yellowthroat, Red-winged Blackbird, and Song Sparrow. The wren and the sparrow had considerably higher densities in the willow in 1959, but are now more numerous in the meadow (the wren, in fact, is no longer found in the willow). The Yellowthroat and the blackbird were of very nearly equal abundance in both habitats, but both have now become more numerous in the meadow than in the willow (the blackbird, too, is no longer found in the willow). The probable explanation is,

again, that the willow has now become too dense to be optimal habitat for these species, while the meadow, being nearly unchanged, has remained as favorable as it was formerly. The decreases of these four species, excluding the Short-billed Marsh Wren in the meadow, were either not significant or were of marginal significance. Their densities are not much less in the meadow than they were 10 years ago, pointing to the fact that the change in the willow habitat is responsible for the decrease in density there (and thus for the apparent change in allegiance of these species).

Due to natural succession of the marsh vegetation there are now 9 species of songbirds nesting in the willow, rather than the 10 recorded in 1959. Two have dropped out (Short-billed Marsh Wren, Red-winged Blackbird) and a new species has come in (Black-billed Cuckoo). The same 7 species present in 1959 in the meadow are present now, with no newcomers.

Should White-fronted Geese Be Protected?

Rep. Henry S. Reuss (D-Wis.) in a letter to Interior Secretary Hickel on Mar. 2, 1970, asked for a review of the open season on the White-fronted Goose.

"According to information I have received from the Whitnall Park chapter of the Izaak Walton League of America, the White-fronted Goose has become close to being an endangered species," Reuss wrote Hickel. "In Mississippi flyway states, an open season of two White-fronted Geese a day for the 70-day season has been maintained. That means that a hunter could kill as many as 140 White-fronted Geese a season."

The Reuss letter points out that there is a one-goose-per-season limit on the much more numerous Canada Goose in the Wisconsin-Horicon area, and that there is a complete ban on the shooting of Whistling Swans.

"In the late 1950's and early 1960's, the total continental count of White-fronted Geese varied between 250,000 and 300,000," Reuss, Chairman of the Subcommittee on Conservation and Natural Resources, said. "The latest status report by the Fish and Wildlife Service shows the very meager total of 107,500 White-fronted Geese left (70,900 in the Pacific flyway, and none in the Atlantic flyway). In the last hunting season, 114,400 White-fronted Geese were killed by U.S. hunters. The 107,500 White-fronted Geese left compares with the 82,000 Whistling Swan left on the continent."

The Reuss letter cites reports of the scarcity of the White-fronted Goose in two Mississippi flyway states.

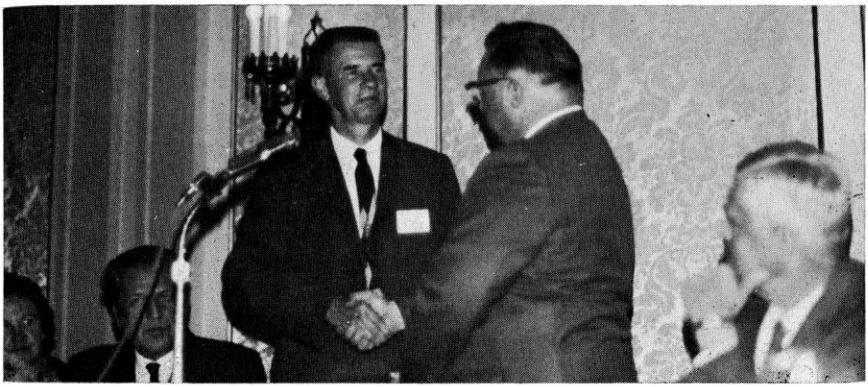
Larry Gale of the Missouri Department of Conservation reported "although a few White-fronts migrate through Missouri, we have very limited numbers of these birds." Tom Evans of the Illinois Department of Conservation reported "the White-front is a rare migrant through Illinois, with only an occasional bird showing up in our Horshoe Lake flock."

"Should not the Fish and Wildlife Service declare a closed season on White-fronted Geese?" Reuss wrote. "In December, 1969, more than 100 Congressmen of both parties joined in a declaration calling for 'The Environmental Decade'. In that declaration, we pointed out that our wildlife population faced a 'clear and present danger', and that already 89 birds and mammals are on the list of endangered species."

"I shall appreciate the Department of Interior's review of the White-fronted Goose question, together with such action as is necessary to preserve our wildlife in accordance with the principles of the Environmental Decade," the Reuss letter said.

WSO Honorary Life Membership

On the 28th of April, 1938, a family of father, mother and three teen-age boys were about to sit down to a birthday supper in mother's honor in the Boston suburb of Belmont, Massachusetts. Just as mother was bringing the hot food to the table, a buzzy bird song was heard outside. Instantly the oldest boy recognized the song of the Golden-winged Warbler and led a parade of eager boys outside to view the new arrival. Of course it was too bad to have to upset mother's birthday supper; but after all, the 28th of April was a remarkably early arrival date for this particular species in Massachusetts.



Chandler Robbins Receiving Honorary Life Membership Award from brother Sam Robbins at WSO annual banquet, 1970. Left to right are Mrs. Murl Deusing, Murl Deusing, Chan, Sam and William Pugh.

Such is the prominent place birds have had throughout the life of the man upon whom the Wisconsin Society for Ornithology has recently proudly conferred an honorary life membership. To draw his interest into the world of nature, Chandler Seymour Robbins has had a great deal going for him — even the name that welcomed him on his birth on July 17, 1918. The "Chandler" was the maiden name of his great-great-great-great-grandmother who was one of the early settlers of New England in the 17th century. The "Seymour" came from his mother, Rose Seymour, whose father was a world-famous botanist at Harvard University. The "Robbins" came from his father, Samuel Robbins, a man of deep ornithological interest who often took his sons for nature hikes in the nearby woods and taught them bird songs.

Chan's ornithological leanings were fostered by his home town. Belmont had long been an area of ornithological interest. It was a favorite haunt of William Brewster and Ralph Hoffmann. It was one of the first 25 areas to be included when the Christmas Bird Count project was inaugurated by Frank M. Chapman in 1900. Chan first took part in the Belmont count in 1934 at the age of 16. By the time he graduated from college he had taken part on 15 Christmas counts in eastern Massachusetts. The number of counts has since risen to 150.

His avifaunal appetite was whetted at Harvard University. By the time he received his Bachelor of Science degree in 1940, majoring in physics, he had become an integral part of the avid Harvard Ornithological Club, and profited from many a field trip with Ludlow Griscom. There was no car in the Robbins family in those days, and those attractive birding areas like Ipswitch, Plum Island and Monomoy were much too far away to negotiate on foot. But Chan always got his share of invitations to ride with other birders. They had come to appreciate his sharp eyes and keen ears — ears, incidentally, which Roger Tory Peterson has rated among the most outstanding among present-day American ornithologists. Fellow birders also came to appreciate our new honorary life member as a patient and effective teacher. This remains today as one of his outstanding qualities. Although he has reached the heights as an accomplished field ornithologist himself, he has not remained aloof from the rank beginner. He has led field trips for scouts, campers and bird clubs on upwards of 150 occasions, and continues to try just as hard to teach the Rose-breasted Grosbeak to a group of children as to spot an errant Black-legged Kittiwake along the Louisiana coast.

He began his career as a mathematics and science teacher at Windsor Mountain School in Vermont, but World War II put a quick stop to that. By the end of the conflict an opening had developed at the newly-organized Patuxent Wildlife Research Refuge for someone to work in the bird-banding office. Chan received the appointment, and has grown with the developing research program there ever since. He has risen steadily to his present appointment as chief of the Migratory Non-game Bird Studies Section of the Bureau of Sport Fisheries and Wildlife. Laurel, Maryland, has been his base of operations since 1945.

It has been the base for further education. He earned his Master of Science from George Washington University in 1950, majoring in zoology, with a Master's thesis on "The Ecological Distribution of the Breeding Parulidae of Maryland".

It has been the base for his family. There he was married to Eleanor Graham Cooley, the daughter of Dr. and Mrs. J. S. Cooley of horticultural fame. There he has raised four children: Jane, Stuart, George and Nancy.

It has been the base for constantly expanding work. From the banding office he branched out into more record-keeping and research. He has updated the files of basic field observations submitted by observers all over North America. He has conducted population studies of the Common Snipe useful in refining game laws. He has investigated the conflict between airplanes and albatrosses in the mid-Pacific, and been instrumental in saving the Gooney-bird from mass slaughter there. He helped conduct some of the pioneer studies on the effect of DDT on bird life and awaken a sleepy nation to the potential hazards inherent in the new insecticides.

We look upon Chandler Robbins as something of a patron saint of cooperative research projects. He has helped organize banders over much of eastern North America in the Operation Recovery program. He has represented the United States at several international symposia where refined methods of counting birds have been developed. He is the archi-

tect of the recently developed North American Breeding Bird Survey, which promises to become one of the most valuable methods of measuring bird populations that has ever been developed. He is presently working toward a new and more effective method of measuring winter populations.

Believing as we do that honest efforts for the preservation of birds must proceed from scientifically sound assessments of their present condition, we gratefully acknowledge these monumental contributions to the advancement of ornithology, and are proud to present this token of our appreciation – this honorary life membership – to Chandler Seymour Robbins.

No less significant has been his writing. He has been a guiding influence in the Maryland Ornithological Society since its inception 25 years ago, and served as editor of its quarterly publication **Maryland Birdlife** most of that time. With Robert E. Stewart he co-authored the **Birds of Maryland and the District of Columbia,** which ranks high among all state bird books. He has been one of the mainstays of **Audubon Field Notes,** serving as its technical editor for most of its 23 years. He produced the range maps for Herbert Zim and Ira Gabrielson's Golden Nature Guide on **Birds,** wrote two chapters for the popular anthology **Birds in Our Lives,** provided migration data for the Bent Life History Series, and has authored a multitude of scientific papers. Wherever his travels take him – from New England to Old England, Mexico to Midway Island, Denmark to Alaska – he is never without his briefcase. There is always an unfinished manuscript beckoning for every scrap of spare time that can be commandeered. The crowning act in the publication realm has been his co-authorship of the revolutionary new field identification guide **Birds of North America**. As senior author, he wrote much of the text, and personally recorded the sounds of over 350 species in order to produce the sonagrams that help make this guide particularly distinctive and valuable.

Important as all these contributions have been, someone is still bound to ask why we of the Wisconsin Society for Ornithology have chosen to honor him with this life membership. True, he has done a bit of field work here in our state; but he has also done field work in 47 other states. He has been a member of W.S.O. since 1942; but he also belongs to some 30 other bird societies – national organizations such as the American Ornithologists' Union, the Wilson Ornithological Society, the Cooper Ornithological Society and the British Trust for Ornithology; regional groups such as the Eastern and Inland Bird Banding Associations, and a dozen other state societies. Yet have not the other honorary life members of W.S.O. been chosen because of some special Wisconsin tie such as birth, childhood, or extended residence?

W.S.O. claims this honor because it recognizes a tie of a different kind. Throughout its 31-year existence, W.S.O. has prospered because it has laid great stress on cooperative research and reporting projects in which every serious-minded amateur could participate. Its program of field notes, range and population studies, participation in summer and winter bird counts, has won national recognition as one in which the efforts of amateurs and professionals have blended together beautifully.

Bluebird Trails Report, 1969

The following is my project report for 1969. I am hoping that it is of interest and pertinent to the assignment given me by the W. S. O.

The material is more of a progress report than anything conclusive at this point because of the limited time each year when actual study can be carried out and the scope of the project. A great portion of my time during the balance of the year is devoted to such things as evaluation of notes, reading and correspondence, workshop time making experimental nest cavities, traps, etc.

In view of much of the material circulated in such publications as the PURPLE MARTIN CAPITAL NEWS *in regard to the Bluebird, I would like to have the contents of this report considered for publication in the* PASSENGER PIGEON *as early as possible. Much of the information contained in the last two issues of the* NEWS *(November and December) is based on speculation rather than proven fact and is more or less harmful in regard to programs designed to help cavity nesting birds. I doubt that many of these practices are experimental and I suspect motivation perhaps out of compassion rather than good sense.*

I have contacted the United States Department of Agriculture in regard to the problem of parasites. The Department referred my correspondence to a Mr. Curtis W. Sabrosky of the Systematic Entomology Laboratory, who is at present working on a project involving screw worms and nestling birds. I am sure Mr. Sabrosky and the Department of Agriculture will be a great help in the identification and classification of parasites found on the nestlings of cavity nesting birds in Wisconsin.

During the 1970 season I hope to show a sizeable increase in Bluebird population (banded birds), continue the study of parasites and possible natural enemies, further study on the artificial nesting cavity, and begin a study of the Bluebird and its ability to live in proximity to humans under the question: Are Bluebirds adapting to the changing environment?

Vincent M. Bauldry

"Never count your chickens before they hatch," is an ageless adage which updated could very easily be applied to include Eastern Bluebirds, **Sialia sialis** (Linnaeus) and our project this past season.

The trend over the past years indicated that we could expect the usual large increase in population this year. This was not the case, however, as the late arrival of the first migrants forecast the possibility of problems being experienced by the Bluebirds on their return trip to the north.

Late winter storms in some of our south central states reaching blizzard conditions led to our belief that early migrants were held back due to the severe weather conditions or perhaps were destroyed by snow and ice storms and unseasonably cold temperatures.

A late nesting start, plus other problems normally experienced during the nesting season prevented our reaching the 1969 goal of 300 birds trapped and banded. This goal was based on the annual growth of the Bluebird population over the years dating back to 1964 when an actual count was started.

The first bird, a male, was sighted on April 2, after several days of scouting and searching locations where these harbingers of Spring had been quite consistent in their arrival. Other sightings followed regularly throughout the area with the earliest nesting found April 20 and the first young appearing the week of May 18. In 1968, young were found as early as the first week of May by comparison.

Experimental Housing

To correctly identify the structure developed and being tested for cavity nesting birds, the name or term Artificial Nesting Cavity (ANC) will be used. This is intended to set the structure apart from other so-called shelters constructed for housing birds. Furthermore, we wish to eliminate confusion and misunderstanding of purpose, to provide scientific information and other data on nesting problems, disturbance by predators, parasites and other material pertinent to the development of artificial nesting cavities.

The accompanying table shows a comparison between the Artificial Nesting Cavity and the conventional Bluebird house.

	Artificial Nesting Cavity			Conventional		
Species	Occupied	Empty	Destroyed	Occupied	Empty	Destroyed
Bluebirds	17			29		11
Tree Swallows	13			32		8
Wrens	3			12		
Sparrows	4			10		
Starlings				1		
Great Crested Flycatcher				1		
Totals	37	48	0	85	35	19

This study involved 205 nesting cavities. Of the 4 ANC occupied by Sparrows, three had been placed on trees with rather heavy foliage. The leaves offered enough protection to the birds to have been a factor in defeating the purpose sought by the open top house. The fourth was on a post that had fallen over to a 45 degree angle. Here again a great deal of protection from the elements was being offered.

Construction and placement of several experimental artificial nesting cavities will continue this year as in the past. Older houses in need of repair will be phased out of the program and replaced by the new structures. Many are being offered to other bird enthusiasts for additional testing over a greater area. This should result in a more accurate picture of this particular study.

In considering the merits of the open top artificial nesting cavity, an interesting point emerges. By being over-protective in our efforts to assist the Bluebird, we could, in a sense, domesticate the species and a less hardy bird would be the result. On the other hand, conditions close to nature might sustain a stronger breed, less susceptible to the elements.

These birds would then serve as the type of stock needed to reverse the trend of possible extinction for an already endangered species. This should be a factor considered in further development of the Bluebird Trails program.

Banding Results—1969

A total of 242 Bluebirds were trapped this past season. Of this number 67 adults and 158 nestlings were banded, while 16 were returns* and one a foreign retrap.**

Tree Swallows numbered 156. Thirty-one adults and 121 nestlings were banded, three were returns, and one foreign retrap. This brought the total number of both species trapped to 398.

*Return—a banded bird recaptured in same grid in which it was banded after an interval of 90 days.
**Foreign Retrap—A bird captured and released at a different station from the one where it was captured.

Improved Trapping Highly Successful

The new trapping device developed at the close of the 1968 season proved to be very successful concerning Bluebirds. The trap worked without fail, enabling the capture of all but one member of all our nesting pairs. The lone bird to escape capture was not the fault of the trap, but of circumstance. The pair raised only two young which were cared for by the female as the male lazed along the nearby telephone wires and thus escaped.

Trapping Tree Swallows proved to be a rather frustrating experience. Being smaller in size, the swallows would pass through the trap upon entering the nest cavity and trip the device as they left the nest. Adjustments and smaller versions of the trap did net several birds but not with nearly the results we had with the Bluebirds. Feeding habits, behavior and size did offer clues as to improved methods to be used in the coming season as far as the Tree Swallows are concerned.

Parasites

Among the problems experienced this past season, the most persistent is that of parasites. In preceding papers prepared these parasites have been referred to as screw worm larvae, a parasite that is the scourge of most of the world's livestock.

The behavior pattern where feeding is concerned is much different in that the parasites of livestock live internally in the host, and the pests affecting young birds feed externally in this manner. The larvae attach themselves to the nestlings on the wings, legs and other portions of their bodies and feed on the blood of the host as it develops. Many parasites removed from young birds are red in color from blood drawn through a tiny wound barely visible in the skin. After inspection these small red marks are found on many young.

A check of the nesting material will reveal the culprits readying themselves for the second stage of their life cycle (pupa) in which a dark brown larval case is formed. From this case emerges a fly, the size of a house fly or slightly larger, and a metallic blue-black in color. The cycle then begins all over again.

The problem of these parasites is quite common, with 85-90 per cent of the inspected nests affected. This study has involved several hundred nests of both Bluebirds and Tree Swallows. There is evidence that Purple Martins also suffer from this pest.

The United States Department of Agriculture was contacted as a possible source of additional information on this subject. A reply was received from Curtis W. Sabrosky of the Systematic Entomology Laboratory of the U. S. Department of Agriculture which included the following remarks:

"The larvae of this genus, **Protocalliphora** (blow flies, family, **Calliphoridae**) are obligatory, blood-sucking parasites of nestling birds. Usually they attach and feed, and then drop back into the accumulated duff of the nest material until ready for another meal. One species in particular may penetrate nasal or aural openings and even get to the brain. Two species may actually embed themselves subcutaneously in tumorlike swellings.

"Swallows and Bluebirds are among the favored hosts, especially of one of the commonest species, **Sialia sialis,** but any species with young confined to a nest for a period of time may harbor larvae of **Protocalliphora.** Birds with precocious young do not suffer from these parasites.

"They are related to the screw-worms, and in fact have been called 'bird nest screw-worms' in some publications. However, the larvae are covered with fine spines rather than having them in a series of bands that are characteristic of the true screw-worms.

"Control measures are not in my field of work, but I believe that virtually nothing has been done with these flies. Birds apparently can ordinarily support surprisingly large numbers of these maggots. If one were to try insecticides, one might thereby destroy parasites, as these sometimes kill as many as 90-100 per cent of the fly puparia, thus exerting a natural control of the fly population.

"If one is closely watching bird nests, e.g. in bird houses, one could remove and destroy the nests as soon as the young birds have left, and one would thus destroy any maggots or puparia in the nests and reduce the breeding population for the next generation. One would of course destroy the parasites at the same time and reduce their breeding population. Even so, such cleanup measures might be effective, or at least help, in certain situations where numerous bird boxes were being operated. But these flies are widespread in nature, and one is 'dipping water out of the ocean', so to speak, when one cleans out a few nests in a limited area. In other words, the prospects for control are not very favorable, and I would be inclined to let nature take its course. No doubt, however, regular cleanup of nests in limited situations such as Martin houses would tend to hold down the intensity of infestations. Ordinarily flies would emerge from the puparia in two to three weeks, so that nests should be removed within a week or ten days after the birds leave the nest, to be sure. It should be noted that some maggots will also leave the nest for pupation, especially if the nest is of loose construction. In a bird house

or cavity nest they are of course trapped and can be found and killed; in a nest out in the open they may drop to the ground and pupate under the leaves or in the top layer of soil."

Nature, in a sense, may have provided its own way of protecting the various species affected by these particular parasites. The enormous amount of food consumed by the nestlings and the rapid rate it is converted into energy, is the factor that enables many of the young to survive. Some do not. Survival of the fittest prevails.

Losses can and do occur in an area where, for example due to weather conditions, food may become scarce. Tree Swallow **Iridoprocne bicolor** (Viellot), young are often the victims of these bloodthirsty parasites in cool, wet weather when there is an absence of flying insects, their only source of food. It is in situations such as this that preventative measures and control of the parasites becomes necessary.

Here again the question arises: Are we interfering with nature's plan? dictated by the great mystery of Creation?

Nature may also react in a totally different manner through the use of insects to destroy these parasites. A study involving the use of ants to control parasites was begun in 1969. An earlier discovery revealed no parasites in a nest also occupied by small black ants. It is known that some ants feed on certain types of larvae, and in an attempt to learn if such was the case with parasites and nestlings as hosts, some experiments were carried out with inconclusive results.

Wooden blocks the same diameter as the nesting cavity floor and three-fourths of an inch thick were fashioned and hollowed out by drilling parallel holes on two sides. The block was then split to permit opening for study. Sugar was placed inside as an added attraction. The ants made their way into the nest and ignored the food and quarters prepared for them preferring the nesting material to store a considerable number of ant eggs. They would be present for a short period of time, 24-36 hours and then disappear, leaving no trace of their activities. After an absence of 48-72 hours the colony would reappear. This practice continued until the young birds fledged. Of two nesting cavities (where with the cooperation of the ants a study could be made) no trace of parasites were found, and no harm befell the nestlings even though, at times, the nest was alive with these industrious insects.

Migration Mysteries

One segment of this study that is becoming more of a mystery each year is: What happens to all the banded Bluebirds? A small percentage return but not the numbers one would expect if the belief that they return to the same nesting area each year is true. We suspect that this may be the exception rather than the rule. Adults that have not been banded previously are turning up in increasing numbers.

The foreign retrap, a male Bluebird banded in 1968 as a nestling at Dixon, Ill., and a report received that a nestling banded at this station in 1968 and retrapped in Paris, Michigan, (lower Michigan), tend to support suspicions that the species do have a tendency to wander and don't always rely on an automatic homing instinct.

The high mortality rate among these particular migratory birds is a major factor in this portion of the study, but there is still a high number of unaccounted banded birds.

If more persons would become interested in the trapping and banding of this species we are sure the results would be most interesting.

Field Notes

Bluebird and Tree Swallow nests were successfully moved out of necessity. The Bluebird houses containing a nest and five eggs was moved forward six feet, raised two feet higher than originally and with the entrance facing a new direction. . . . A Tree Swallow nest and six eggs in a hollow fence post, the first of its kind encountered, was moved a distance of about 25 feet with no interruption of the nesting. The move was made with the female sitting on the nest.

* * *

A pair of Bluebirds (female banded as a nestling in 1966) and (male banded as a nestling in 1967) paired and raised young in 1968. In 1969 these two birds returned to the same area, each with a different mate and nested within a half mile of the location used in 1968.

* * *

A female Tree Swallow trapped in early June was carrying a foreign band. A check with the Fish and Wildlife Banding Office revealed that the bird had been banded near Peshtigo Point (Wisconsin) as a nestling in June 1966.

* * *

A male Harris Sparrow was sighted on one of the banding excursions. This species is quite uncommon here at present but reports indicate that we will see more of it.

* * *

A family of Great Crested Flycatchers was trapped and banded along our trail this year. The pair had the usual snake skin adorning their nest and raised six young. . . . House Wrens are showing up in increasing numbers, especially along wooded and heavy shrubbery areas.

Mating of the Osprey

On April 26, 1970 while checking for nesting occupancy of the Osprey, **Pandion haliaetus** (Linnaeus), nests at the Buckthorn Flowage, I had the opportunity of watching the mating of these birds. I was accompanied by two of my friends.

The bird that turned out to be the male was standing on the nest while the female was sitting on a large horizontal branch at the side of the stub. As we watched the male took to the air and circled at approximately one hundred yards and landed on the back of the female. During the flight the male made a continuous peeping sound. During the mating, which lasted about ten seconds, both birds kept up a great deal of twittering. It appeared that a good deal of balance keeping was also necessary. Then the male stepped off onto the branch and both birds began preening and kept peeping in a low tone.

This is my first observation of Osprey mating.—Don G. Follen Sr., Arpin, Wis.

NEWS ITEM

from CORNELL UNIVERSITY NEWS — Ralph Kazarian

ITHACA, N. Y. — Women's rights advocates might learn a few tricks from the female Cattle Egret, **Bubulcus ibis** (Linnaeus), a bird that clobbers a belligerent male into submission and then helps him build their love nest.

The aggressive courtship of the two-foot-tall bird is described for the first time in detail by Douglas A. Lancaster, assistant director of Cornell University's Laboratory of Ornithology, who watched a large colony of the birds along the Cauca River in Colombia.

Once she has let the male know who's boss, Lancaster said, the female then keeps any other female away from the male she has just overpowered.

Both sexes of the Cattle Egret are aggressive, Lancaster said, but the male starts singing his swan song shortly after he flies into the colony, plumes erect and strutting his stuff to attract attention. At first, the male fights off all comers, regardless of their sex. This may go on for several days — but the male's days of freedom are numbered when a mating relationship is established.

"The latter is accomplished," Lancaster said, "when a female flies to a male and, surprising him from behind, lands on his back and succeeds in remaining there long enough to subdue his aggression through repeated blows on the head."

Only a small fraction of the back-landings is successful, Lancaster noted, because the male fights furiously to dislodge the female and force her to flee. If he's unable to dislodge her, the male crouches low and submits.

"The female then turns her aggression toward any other female that attempts to mate with the male she has just subdued," Lancaster said. "Sometimes the male's submissiveness does not stop the female's aggressiveness. In that case, the male struggles to rise and either attacks the female or flies off. He soon returns, however, usually attacking the female and driving her off."

If the subdued male is lucky enough to have tangled with a female that loses her aggressiveness after he submits, the pair happily builds a nest together on the same site where the male had strutted his supposed superiority.

Cattle Egrets get their name because of their habit of following cattle and eating insects and other small animals flushed up by the grazing cattle. Their bodies are white and they have yellowish legs and bill with buff colored plumes on the head, back and breast.

The birds's original distribution is in Asia and Africa but they have spread rapidly and now are found in many parts of North and South America as well. They were first reported in this hemisphere about 1930 when they were spotted in northern South America.

Lancaster made his study of the bird while he was a visiting professor at the University of Valle in Cali, Columbia. His work will be printed in the next issue of **The Living Bird,** an annual published by Cornell's Laboratory of Ornithology.

EDITOR'S NOTE: True love is not always bliss; sometimes it's tumultuous. In certain ibis, it may be bubulcuous.

Little Blue Heron on the Mississippi

By CLIFFORD J. DENNIS
Wisconsin State University-Whitewater

The Little Blue Heron, **Florida caerulea** (Linnaeus), is mentioned in the W.S.O. "Wisconsin Birds" pamphlet as a rare summer visitor of late summer with a few reports from April, May, and June. The Field Check List indicates it is rare, with five or fewer records per year.

I first saw this species on the Mississippi River near Bagley in 1940 when I was a sharp-eyed highschooler. I no longer am as sharp-eyed, but this bird is easy to identify. Although no counts were made, I have seen it frequently in intervening years, more often since 1966 when I began closer study of the area. I feel that it should be considered uncommon here, rather than rare.

This heron has been more frequent in the spring, but it has been seen from April through September. Most of them have been the immature white or particolored birds, though some have been fully blue adults. The younger ones are more often seen, possibly due to their being more likely to be forced out of their usual range. There is no evidence of nesting.

The latest observation was made on May 16, 1970. This was a rather blustery, chilly day with a little rain. The heron was a particolored but mostly white bird that I observed both by the unaided eye and 7 x 50 binoculars. It was standing in shallow water, apparently fishing. When first seen from about 150 yards it was in close company with a Great Blue Heron, and there was another Great Blue Heron with a Common Egret wading together about 50 yards away. These four birds seemed to be simply fishing and ignoring each other. I was able to drift to within 20 yards of the little heron before it flew. The Great Blue Herons were startled into flight well before the little one; the egret never did fly away.

SUMMER SAW WHET IN WOOD COUNTY

On June 27 while returning from a banding trip in lower Wood county with my oldest son and Jim Scheuneman of Arpin we came upon a road-killed bird on the highway. We were two miles north of Babcock on Highway 80. I was surprised to see that the bird was a Saw Whet Owl, **Aegolius acadicus** (Gmelin), in the adult plumage. I could find no downy feathers that would indicate that the bird had been hatched this year.

I am not familiar with any other summer records of this owl in Wood county other than a live bird I observed south of Arpin in August of 1955. Due to the docile nature of this bird and its small size I presume they are not seen.—Don G. Follen Sr., Arpin, Wis.

Robbie at Age 9

By Mrs. Henry Koenig

Nine happy busy years have sped by since Robbie came to live with us. It was on June 2, 1961 that a bedraggled month-old Robbin with a broken leg was brought to us. Former readers of the **Passenger Pigeon** may recall reading of him. I wrote about Robbie when he was three and again when he was six years old. And now on this first day of September, 1970 he is nine years and four months old. Nevertheless he continues to police this territory and keeps track of all that is going on. Nothing escapes him and he is as sharp as ever. He has ruled this household completely and also those who have touched his life. He seems to be in perfect health except for his crippled feet.

Every day of his life has been precious to us but from here on each day will be doubly so. He has almost completed this year's molt and a few days ago I heard the first few sweet soft almost inaudible warbles of his usually beautiful song. As I write he is sitting on the arm of my chair.

No words of mine can possibly do justice to this grand old intelligent bird whose understanding of what I say to him is nothing short of a miracle. If I feel that his upper mandible should be clipped, and this would be in order about once a month, he seems to sense this almost before I have thought of it myself and gives a little warning call meaning, "Don't touch me." No bird likes to be caught or touched for it is they who want to make the advances. It takes a mighty fast move to capture Robbie. I wonder what he would say if he were a Parakeet. I'm sure his conversation would be most revealing.

FOOD: All these years Robbie has lived chiefly on lean raw ground round steak with vitamins added. I felt that meat without fat might be best for him to keep his weight down. The tiny bits of meat are usually hand fed. If it is not given him at once when taken from the refrigerator he can easily remove the cellophane and help himself. He eats a great many moths which are caught in the insect machine and frozen for us the year around. Of course Robbie helps himself to mealworms for they are always available in a dish of oatmeal.

It is my duty to have a good supply of mealworms on hand and also to keep the worms well fed with carrots. So far this year of 1970 we have ordered 71,000 mealworms, having purchased 15,000 in June, the same number in July and 20,000 in August. The total since January 1966 when we first began using them is 306,000. In winter when there are no young birds we average 5,000 worms a month. They come from California via air mail and usually arrive in good condition.

Robbie has always liked coffee cake and bits of grapes plus cooked meat and potatoes. A few years ago he began looking in the sink for a snack and couldn't wait for me to finish washing the dishes. He still does this so I leave a bit there for him. Robbie is fond of cooked oatmeal and wheat chex and always manages to get a bit of each for breakfast.

SLEEPING HABITS: Robbie has slept on his little three cornered shelf in his bedroom all these years until the past year or so when his sleeping habits became irregular. The soap dish for the shower or the towel bar above the tub have become his favorite night perches.

When Marty deserted his sleeping quarters on the blind in the bathroom and decided to sleep in the pantry, Robbie moved into the bathroom. These are two great rivals. Sometimes in summer when Robbie stays up late as does Marty, neither bird, just like the children, wants to give up and retire.

Occasionally Robbie is disturbed by us when we prepare to retire even though we are quiet and never turn on a bright light. But he sometimes hops to the floor and becomes playful. He chases my slippered feet and may even go to his room to sing a while. Once he kept me up until one o'clock for I didn't like to turn out the dim light until he was in place for the night.

FEARS: Robbie no longer panics at the sight of a visitor wearing red clothing. And the vacuum cleaner doesn't frighten him as it did for years, nor does the opening of the ironing board scare him as in the past.

TERRITORY AND JEALOUSIES: Early in 1970 Robbie again began to show signs of defending his territory. He pecked our heads and hands in January which was most unusual in that it was several months ahead of schedule. The old green hat which has served me well all these years had to be worn again. No other hat will do for Robbie.

Also in January Robbie began to sing louder than usual. It was so loud that I often put cotton into my ears which are sensitive. Generally his song was soft and controlled until March or April.

Whenever we were gone for a while we separated the two birds for Robbie went after Marty and pulled out some of his feathers every chance he got. Then Marty caught Robbie by the foot or leg to defend himself. When I scolded Robbie he looked at me as if to say, "If you only knew what names he calls me and what he says about me!"

ROOMMATES: Robbie has had quite an assortment of roommates the past three years. In 1961 he and an invalid Purple Finch were our only guests. Now Robbie must think, "Things have surely changed around here."

The summer of 1968 brought us a baby Chipping Sparrow which we kept over three weeks. Four little Baltimore Orioles came on June 20 and were our guests until their release five weeks later. In September an adult Red Crossbill from Baraboo, injured by a cat two years earlier, became a permanent resident. In December Robbie had to share his room with a caged Sora Rail until May when it was released at Honey Creek.

1969 also brought many birds but I shall mention only a few. In May a male Connecticut Warbler with a broken leg was found at Beloit during the WSO convention time and was left with us. Connie lived in a cage in Robbie's room until July when he was released at Honey Creek. He and Robbie sang a great many duets while Henry used the electric shaver. We have this on tape.

Several young Martins were brought from elsewhere and later released. Robbie became acquainted with a precious Indigo Bunting which had been in captivity a year in Madison and had lost most of its lovely feathers. After six weeks of freedom on the patio he was in good condition and released.

In December a Screech Owl from Madison occupied a hollowed out log in a large cage in Robbie's room for two weeks before its release.

Robbie sat on the cage during the day because the owl didn't come out to sit on the wire perch until night. One morning I heard noises in Robbie's room and upon investigation found that the owl was out of the cage and the room was in great disorder. I must have failed to close the cage door securely and everything on the dressers was knocked to the floor. Fortunately I had closed the door leading into the bathroom where Robbie slept or I might not have had occasion to write this article about Robbie.

1970: This past summer was a very busy one and I know that Robbie felt rather neglected. The patients brought included 14 Robins, 6 Mourning Doves, 1 Rosebreasted Grosbeak, 1 male Ruby-throated Hummingbird, 2 Nighthawks, 2 baby Bluejays, 1 baby Baltimore Oriole, 1 baby Chipping Sparrow, 1 Downy Woodpecker, with useless feet, 1 Purple Martin with useless feet, 1 Cedar Waxwing with a part of a wing missing, and 2 families of baby House Wrens totaling 7 birds. The first family of 4 has been released but being fed mealworms and moths outside. The second family at this writing, September 10, is in a cage in the kitchen. Both families were deserted by their parents or something happened to them, and both came from out of town. Many of the patients of 1970 did not survive because they were too young or too badly injured.

For the first time we were able to raise a baby Mourning Dove which lived for a while in Robbie's room. It was given a special formula to drink and survived, becoming quite a pet in the two months it was with us. It always wanted to be with me and perched on my shoulder. If Robbie or Marty were there Dovie came and they flew away.

Robbie's permanent companions are: Marty the five-year-old Martin, Cliffie the five-year-old Cliff Swallow, the Red Crossbill, the Cedar Waxwing, the Purple Martin with useless feet, a young Robin with a broken wing, and two Canaries, one found by some children two years ago and the other given to me recently after the death of its owner.

SLIDES AND MOVIES: Since 1966 we have taken many movies of the birds in the house and also of those at the feeders. We've spent much time getting tape recordings of their songs. These and my explanations of the pictures are played while the pictures are shown. Forty-six species have been brought to us over the years and we have a collection of slides of most of these birds.

Robbie has become very camera shy so we haven't as many movies of him as we wish we had. He seems to dislike the bright lights.

TWO FRIGHTENING EXPERIENCES AND AN AMUSING INCIDENT: Last March Henry tried to take movies of Robbie because the previous ones were not good. So I coaxed him into the bird bath where he took a good splashing bath but as luck would have it the camera would not run due to a weak battery. Perhaps an hour later I missed Robbie and went in search of him. I found him on the floor of his bedroom with his head in a most peculiar position. I thought it might be because his bill had caught in the tangled wet feather as he preened his breast but that was not it.

I was able to catch him and found he couldn't close his bill or make a sound and I couldn't loosen the bill. Henry discovered that Robbie's mandible was caught in his upper breast skin which he had pierced. Henry finally freed it but what a terrible thing to happen. I don't know

if he could have lived had we been gone for hours. Robbie sat in one spot for an hour and then finally slowly got back to normal. I was glad to again see him chase Marty.

There is an incident in connection with Robbie's companion Marty I would like to mention here. On April 26, 1969 my notes say: "I am afraid this will be the final chapter of Marty's life of almost four years. This morning I took a cord (not a thin string) off a box. Marty found it and must have started to chew it, picking it up in the middle with both ends hanging out of his mouth. Maybe he wanted to carry it to his house but it got too far back and he could not get rid of it; we will never know. I couldn't pull it out for it went down double. I called Henry home from the office but nothing could be done without injuring his throat and tongue. We cut off both ends of the cord as short as possible and he swallowed the ends. Judging from the size of the box we figured that Marty had about twelve inches of cord inside of him. He didn't eat or drink all day but sat in front of his house on top of the cupboard. Toward evening he accepted one pupated mealworm and a sip of water. He just sat there looking miserable and finally went to bed in the pantry. I felt sad and terribly worried.

The next morning I was afraid to look for him but Marty was still with us. He just sat with his eyes closed in front of his precious house with its several hundred pieces of paper in it which he had gathered for a nest. He refused food and water until evening when he again ate one pupated mealworm and had a sip of water. He had one small dropping during the night and was eliminating a little during the day. Once he sang a few notes and flew a tiny bit but returned to sit in front of his new one room apartment.

We had given him five drops of olive oil that day but nothing much happened. The third day, April 28, I recorded the following: "A miracle has happened; maybe it was the olive oil; anyway Marty was saved and is near normal today, staying near his house and singing. He is so hungry but weak that I am his special nurse and all day climbed a step ladder to reach him on the cupboard where he stayed. Here I tempted him with soft white pupated mealworms and water. He even took a bath up there. He also worked at his nest and buzzed Robbie whenever he came too near, to defend his territory. The long ordeal is over and I am so thankful that Marty is well again. We never saw a sign of the terrible cord." Marty has added spice to Robbie's life and given him cause to exercise a great deal which is important.

One day I was greatly puzzled by some strange noises near the sink. It sounded as if someone were working at the pipes below or in the basement. I looked and listened and finally after some time discovered that unknown to me Robbie had gotten into the cupboard above the sink in which dishes are kept and I had closed the metal sliding doors. It was dark in there and he was trying to get out, striking the dishes and the loose fitting doors with his wings so that they rattled.

DANGERS: I am constantly on the alert to keep Robbie as well as the others from danger for I know what it means to lose a precious bird due to my own action. My husband and I both take various heart pills etc. several times daily and I am always on guard that no pill is dropped for a bird with his sharp eyes could easily see it and quickly

snatch one up since they are hard for us to see on the floor covering. When birds know they shouldn't have something they are determined to get it. All these years Robbie has had an obsession for rubber bands and even now he would love to have one. I must deny him that pleasure after an experience many years ago.

One must guard the hot stove too and keep all kettles covered. Closing doors is another source of danger to a bird for they are so quick. That is how Robbie's feet became injured. In the bathroom we have a sign above the toilet which says, "When not in use please put cover down because of BIRDS."

We have tried to give Robbie the best of care but his feet have worried me for a long time. Formerly I used a bird ointment to soften them but more recently we use something else to try to halt their deterioration. Whenever we catch Robbie to clip his upper bill or claws we usually treat his feet with bactine. Only a week ago he had a swelling on one toe which I thought might result in the loss of another claw but it didn't. If I forget to empty his bath water before treating his feet, he always goes there directly to bathe and of course the medication is washed off.

SOME CLOSING THOUGHTS: Birds have been the vital factor and driving force in our lives these past twenty years. I have kept an almost daily account of the happenings here in our world of birds. As far as routine is concerned one day is just like another, seven days a week, year in year out. It's like a merry-go-round that can't stop and of course we don't want it to stop. I would be utterly lost without birds in the house for I am alone a great deal and they are good company. The most birds we had at one time last summer was eighteen.

In our house birds come first so household duties come second and some days I can't make any headway. Of course I keep the house as neat as possible. I often cook at night after the last little one has been tucked in, so that something will be ready for us the next day because I may not get at it then.

I am perfectly contented to remain at home for this is where my heart is. There is never a vacation except once a year when we try to go to the WSO convention for a day if it isn't too far away. We didn't make it in 1970 for my husband went to the hospital. I had wondered what to do about a baby Mourning Dove which could not be left at home but the problem solved itself. As our family grows it becomes increasingly harder to get a bird sitter even for a day.

There has been many a heartache for me in connection with caring for wild birds but our close association with the birds has been most rewarding. It has brought many fine people to our home and we've made new friends. Every once in a while someone suggests that I write a book about our experiences with the birds. I would love to do that but who would care for the birds in the meantime and do the housework besides? One needs undisturbed time to concentrate and study.

Because of lack of time I keep putting off writing short articles for the **Passenger Pigeon** about the four baby Baltimore Orioles brought in one day, the baby Chipping Sparrow of two years ago and Dovie, the baby Mourning Dove, the first we ever were able to keep alive because my husband made a feeding device for it.

Even the daily paper doesn't get read in summer. I save them a week or so and when the stack becomes hopeless I discard them. By ten o'clock when I could relax I am exhausted and good for nothing so fall asleep with the paper or pen in hand while sitting up. I often get up very early thinking I'll do some writing but I can't win. The birds hear me and call and I am unable to concentrate. Oh, oh, this all sounds awful! I'm really not complaining but only explaining our way of life!

Recently a visitor remarked that she wondered what would become of all the injured birds and orphans which people would like to bring, if we were unable to carry on or were no longer here. I too have thought of that and it worries me. Whenever I enter a car the thought flashes through my mind that for the bird's sake we must return safely.

Of course life is always uncertain at any age but perhaps a little more so when one is seventy. We must outlive Robbie for he would be unhappy anywhere else without his freedom. And there are Marty and dear little Cliffie who is now blind in one eye. I wouldn't like to leave any of them to their fate on this earth. It is hard to be really completely happy these days when one realizes world conditions and the unfairness under which birds and all wildlife must struggle to live.

Some years ago I saved the feathers which our permanent residents molted and kept them in little boxes which became quite numerous.

Last winter I decided to use them in a little seven by eight inch gold pillow I made of soft material. I filled it with only their small fluffy feathers. This year I shall add more of Robbie's, Cliffie's, Marty's and Billie's feathers. This soft little precious pillow will be something to love and comfort me if the birds should leave us.

Martins don't molt until about late October and early November which is after they have migrated. It's migration time now for most birds and the female Martin with the useless feet is restless for this species has already gone. Cliffie too would like to be on his way south but he has never had that experience since he was injured the first summer of his life. The young Robin with the broken wing is restless and wants to get out but he hasn't tried to fly since the tape was removed from his wing. Only Robbie and Marty do not seem to especially have this urge but who knows?

As I write the closing words of this article on this fifteenth day of September, we still have three baby House Wrens to release. Sometimes it takes hours to get them out of the patio. I thought the two remaining wrens of the four released had gone too but tonight at seven o'clock one came in a hurry for a quick bedtime snack of mealworms. Three Hummingbirds were at the salvia and at the feeder today. The days are growing shorter and soon only the rugged ones will be left to brave the winter which I love.

It is my sincere hope that my husband and I will be able to keep our little flock happily together for a good many years to come. Anyone interested in birds is always welcome at our house for the door is wide open to visitors at any time.

Letters To The Editor . . .

Mr. Michael E. Kohel
5842 South 14th Street
Milwaukee, Wisconsin 53221
May 16th, 1970

Dear Dr. Kemper:

I would like to once again express my sincere appreciation for publication of my survey form on the Common Loon. I received my copy of the **Passenger Pigeon** today and was very glad to see the size, method of publication and adaptation of the tear-out page.

Upon receipt of sufficient data I will summarize and submit a paper to you as to the outcome and significance of the study, along with a photo and synopsis of my activities.

Your assistance has been greatly appreciated and will long be remembered. Thank you.

Very sincerely yours,
Michael E. Kohel

* * *

Cornell Laboratory of Ornithology
159 Sapsucker Woods Road
Ithaca, New York 14850
27 May 1970

Dear Mr. Kemper:

Perhaps it is no news, but we noticed that the volume number on your latest issue is the same as last year's. It could be intentional, of course, but it seems more likely it's a mistake. Just thought it wouldn't hurt to mention it.

Sincerely,
(Mrs.) Jan Johnson
Librarian

* * *

Alexander Library
Department of Zoology
Edward Grey Institute of
Field Ornithology
Botanic Garden, High Street, Oxford

Charles A. Kemper
Editor, **The Passenger Pigeon**

Thank you for the latest number of **Passenger Pigeon,** 1970, No. 1 that we have just received. It is printed as Vol. 31, No. 1, but according to previous volumes of the magazine, 1969 was Volume 31 (although I think No. 4 of this year was printed wrong, as Vol. 30). Should 1970 not be Volume 32? I would be grateful if you would let me know about this.

Yours faithfully,
Jennifer M. Cordrey (Librarian)

June 2, 1970

Dr. Charles A. Kemper
733 Maple Street
Chippewa Falls, Wisconsin 54729
Dear Dr. Kemper:

I suspect that you are already aware of the error in the volume numbering of the **Passenger Pigeon.** But, in case you have not noticed it, I thought I would call it to your attention.

The Winter 1969 issue should have been Volume 31, not 30, and the Spring 1970 issue Volume 32 instead of 31!

Sincerely yours,
Willet T. Van Velzen
Migratory Non-Game Bird Studies
Division of Wildlife Research

Yes, thank you. This mistake was observed by librarians and readers throughout the world. The Winter, 1969 issue should have been labeled VOLUME 31, NUMBER 4. And the Spring, 1970 issue was erroneously marked VOLUME 31, NUMBER 1 instead of VOLUME 32, NUMBER 1.

Four Young in One Barred Owl Nest

By Don G. Follen Sr.

On May 17, 1963 I located an adult Barred Owl, **Strix varia** (Barton), feeding on a grey squirrel, **Sciurus caroninensis,** in Powers Bluff Park. This park is located two miles southwest of Arpin in Wood county.

I then began a search for the nesting tree or nest of these owls that would last for several years. I walked the woods and climbed many of the hollow trees that would provide an adequate nesting site for the birds. All of these efforts proved to be fruitless. On April 29, 1970, a friend told me of seeing the birds and a young in a tree.

I immediately went to the area described and found both of the adult birds and one young about five weeks old in what proved to be the nest tree. I put on the climbing irons and started up the tree, when I could hear bill snapping coming from inside the tree. I knew I had at last found a tree that they may have been using all these years.

On May 3rd I used a ladder to get to the nest site of the owls and found, to my surprise, three more young owls in the nest. They all appeared to be in good health and all had exudate in the ears. I banded the four young birds and as of this writing all of them have left the nest cavity and have gotten lost in the woods.

The nesting hollow was in an oak tree and approximately fifteen feet off the ground. The hollow tree itself was about thirty inches deep and fourteen inches deep. This tree is in a very conspicuous area and I hope that the young all make it.

In checking with Bent's account of these birds, he says, "two or three eggs, rarely four". The only other Barred Owl nest I have personally found has always contained two eggs or two young. I will have to make it a point to watch the nesting success in future years now that I have found this site, and providing that the birds will use the site again.

* * *

I have been walking in the woods of Arpin township in central Wisconsin for roughly twenty years. I am quite familiar with the species of passerine and raptorial birds that I have observed in this area. I have never located any nests of the Long Eared Owl, **Asio otus** (Linaeus), in this area. I have on several occasions found wintering concentrations of this species and have been aware of others. This factor may have contributed to my findings in this area for 1970's breeding season.

On April 21 while traveling a route I often take to go north to the city of Marshfield, I noticed a few sticks in a tree that I had not seen before. I stopped and when glassing the nest I observed a Long Eared Owl sitting beside this nest. In subsequent trips and observations I observed what I assumed to be the female on the nest. This was to be the first of five Long Eared Owl nests that I was to find this season. Bent describes this bird very well. I will try to relate only that information which I feel is of significance regarding the discovery of this species as a breeder in this area. I will relate to each nest site as LE#1, 2, 3, 4, or 5.

Nest — LE#1. Looks like an old crow nest in a popple tree at thirty feet. Nest composed chiefly of sticks, some are newly broken sticks. Nest is located about thirty yards off the road. Located 4-21-70.

LE#2. Nest in white birch at about twenty-five feet and is located about thirty yards from the road. Is composed of sticks, leaves, and grasses. Located 4-21-70.

LE#3. Nest is twenty yards from the edge of the woods bordering an open hay field. The nest is in a red maple at about thirty feet and is composed of sticks and grasses. Located 5-4-70.

LE#4. Nest is located about twenty yards from an open marsh. This nest is also in a popple at thirty feet. Nest composed of sticks and leaves. Located 5-7-70.

LE#5. Nest is located twenty yards from the road in a yellow birch and is composed of sticks, leaves and much grass. The nest is twenty feet from the ground. This site adjoins an open pasture. Located 5-11-70.

These nests were then frequently observed until I could see at least one young that I considered to be large enough to band. The following will give some idea of the reproduction of this species.

LE#1. On May 24 I climbed this tree and found four young in age from three to five weeks so the female must have had the eggs when I discovered the nest on April 21. All of the young made a threat display during the banding. Only the smallest appeared to have exudate in the ears. The adults were very active and vocal. Fresh popple leaves in the nest.

LE#2. On May 24 I banded four young at this nest ranging from three to five weeks of age. None of the young showed any signs of exudate in the ears. The adults at this nest proved to be the most active and vocal. The smaller (I will assume the male) definitely has a much darker face than the larger bird. This nest is very messy. There are fresh pieces of grass and popple or birch leaves in the nest.

LE#3. May 25 showed only one young in this nest at four-five weeks of age. No exudate in the ears. Fresh maple leaf in the nest. Only one adult seen. A thorough search of an area about fifty yards around the nest produced no more young. Very little excrement in the shrubbery below the nest, shows there may have only been one young in the nest.

LE#4. May 25. Climbed this tree after I had found a partially eaten young on the ground, and found a partially eaten young in the nest. These young were at approximately five weeks. The bird remains on the ground were two feet, one leg, stomach, part of the back and breast. The remains in the nest were two feet, upper breast and head and the stomach. This was very fresh and must have happened within the preceding twenty-four hours. No adults were seen at this time so they may have had young that branched and had led them off to a safer area. One large mammalian scat was at the base of the tree and I expect that it was from a raccoon.

LE#5. May 24. I banded one young at this site at about two weeks of age. The young was on the ground with the female, (assumption), sitting on it at the base of the tree. The nest was empty, but did have fresh grass in it. The western edge of the nest had given way. It appears as though the egg had fallen from the nest and was incubated on the ground. A complete shell (two halves, joined) was found less than a foot from the young bird. A thorough search of this area produced no other young and only one adult was seen at this site. I had observed the adult bird on the nest only two weeks prior to this date.

A total of ten young birds were banded and the young ranged from two to five weeks of growth. This is not positive, but is an estimation as a result of being familiar with the growth rates of other raptors. As far as I can discern a total of at least twelve young were produced by these five pair of owls. Two and maybe more had fallen prey to some form of mammalian predator. I disregard predation by a larger owl because of the large scat and because of the remains that were left on the ground and in the nest.

For those who have not had the opportunity to observe the Long Eared Owl I would like to stress one point, do so if you do get the chance. In the event of nesting such as I am referring to in this article or with any other species of raptor, I have found that one can very effectively locate the nests without disturbing the nest itself. Don't attempt to climb the tree if you can't see the young, Osprey the exception. I believe as does Fran Hamerstrom that predators of many kinds will follow a human scent. I have found that nesting success will be much higher if one waits to go to the nest tree to see the young, best is to stay away. In regards to this I would advise seeing and reading Fran's article on banding raptor nestlings in MTAB 14 from the bird banding office.

The thing that strikes me as the most fascinating about the Long Eared Owl is its ability to hide itself. This bird has the ability to compress its body until it looks much like a snag or branch. Once while ob-

serving LE#1, I spotted one adult next to the trunk of the tree on a dead limb. I would swear that this bird was not over one and one-half inches in diameter. This is a fascinating adaptation for survival of a species.

I theorize one possible reason for this sudden appearing nesting invasion of this species. One day during late December some fox hunters told me of a large owl concentration at Stanley's marsh. Within the week I decided to walk into this area to see if there might be some method of trapping some of the birds for banding. I estimated that in this particular alder swamp there were well over fifty birds. Consequently I estimated over fifty birds in two wintering areas. I feel that with such a concentration wintering in these areas that this particular incidence of nesting should be regarded as a spin off because of the population density rather than habitat selection. Time and future conditions may prove this to be wrong however.

I believe that if I had had the time and could have covered each and every woodlot as I have done in other years that I would have found more nests of this species. It does seem unusual however that these many nests have been found in woods that have been searched for years, with the exception of the location of LE#1. It is also unusual that for several years I recorded the nests of Great Horned Owls, **Bubo virginianus,** in these same woods and this year there were none. Perhaps we have a species shift here for some reason or other. I will attempt to make a greater effort to solve this in the coming years.

CROW ROBS SPARROW HAWK

On April 16, 1970 I was driving on Highway 186 two miles southeast of Arpin when I observed a Sparrow Hawk, **Falco sparverius** (Linnaeus), kill and carry off a vole of some type, **Microtus sp?** The little falcon had gone about one hundred and fifty yards when a Common Crow, **Corvus brachyrhyncos** (Brehm), began to dive at it. After at least three dives the Crow actually hit the Hawk and the mouse was dropped. The Hawk flew off into a nearby woods and the Crow dropped into a field and began tearing at the mouse.—Don G. Follen Sr., Arpin, Wis.

MINUTES OF THE ANNUAL BUSINESS MEETING
FOND DU LAC, WISCONSIN, MAY 23, 1970
WISCONSIN SOCIETY FOR ORNITHOLOGY, INC.

The meeting was called to order at 4:30 p. m. by President Donald Hendrick with about 100 present. The secretary announced that, since the minutes of the previous annual meeting had been made available to all members through the **Passenger Pigeon,** it is customary for the reading to be omitted at this time. The President asked for alterations or additions – hearing none the 1969 minutes were accepted as printed.

President Hendrick chose this time to express his appreciation and thank the members of the Board of Directors for their confidence and co-operation. He doubted whether the membership at large realized the amount of time, effort and expense necessarily spent in transacting the business of the Society, both at the quarterly meetings and throughout the year. Requested reports were summarized and distributed as follows –

Treasurer Phyllis Holz gave her usual concise financial report—

Income		Expenses	
Advertising	$ 300.00	Addressograph	$ 33.19
Memberships	4,029.00	Badger Birder	254.10
		Passenger Pigeon (2)	1,529.27
		Circulation Manager	30.00
		Membership Chmn.	90.95
		Secretary	15.00
		Treasurer	17.41
		Fire Insurance	27.00
		Liability Insurance	34.00
		Honey Creek	212.37
		Miscellaneous	32.20
			$2,275.49
		Net Gain to date	$2,053.51
	$4,329.00		$4,329.00

BALANCE SHEET

(Assets)		(Funds in Reserve)	
Cash on Hand	$ 3,324.70	General Fund	$ 303.68
Steenbock Savings (Gen.)	1,477.68	Convention Fund	150.00
Steenbock Savings (Pub.)	403.49	Endowment Fund	2,000.00
Steenbock Savings (Scholar.)	600.00	Education	38.77
General Savings	897.23	Prairie Chicken Fund	194.72
U. S. Treasury Note	4,960.26	Publications Fund	90.57
Books Inventory	5,100.00	Conservation Fund	343.45
Books Equipment	317.60	"Outside Contrib." Fund	100.00
Addressograph	181.41	Research Fund	50.00
Mimeograph	250.00	Net Gain to Date	2,053.51
Folding Machine	74.25	WSO Net Worth	26,550.31
Land Values	14,288.39		
	$31,875.01		$31,875.01

There will be two more issues of the **Passenger Pigeon** to be paid for this year and five more **Badger Birders.** Honey Creek land holdings have been increased by the purchase of 10¾ A. including a possible building site, at a cost of $2275.00. A grant of $1500.00 was provided to enable Charles Sindelar to continue his study of the endangered Osprey. Report accepted with sincere thanks to Mrs. Holz for her painstaking work.

The Board of Directors met four times at Stevens Point to transact the business of the Society. The Society continued to sponsor the Osprey study to the amount of $1500.00. They also OKed an expenditure of $165.00 to defray the cost of pesticide analysis in some shrike eggs and inaugurated a new study of great blue herons. Both of the latter studies will be conducted by Tom Erdman.

This year also saw the completion, publication and distribution of its second up-to-date index for the **Passenger Pigeon.**

The second printing of the Bluebird Trails Guide was ready for distribution early in the fall of 1969.

In August, 1969, we backed a petition to abolish pole-trapping in Wisconsin and to give protection to the Great Horned Owl.

Three acres of land were purchased for Honey Creek to "protect the approach and the atmosphere of the santuary".

Membership was updated to allow for the increased cost of operating the Society and new membership brochures were printed to keep pace with the changes.

Honorary Life Memberships in WSO was changed from a fixed number of recipients to a percentage of the total membership to allow for automatic changes in this honor as the Society changes in size.

A number of resolutions were adopted by the Board and passed on to the proper persons. They are in summary as follows:

Opposition to Project Sanguine.

Opposition to pole-trapping in Wisconsin.

Plea to bring ORAP 200 legislation to the floor for a vote.

Request to DNR to render a decision on DDT.

Note to the state attorney general to take a more active role in pollution abatement.

Request to the DNR to enforce pollution violation restrictions.

A revision of the By-Laws and Constitution of the Society has been in the making and is near completion at this time. Donald J. Hendrick, President

MEMBERSHIP — The last year since the Convention at Beloit, Wisconsin, has been about the same as the year before. Questions and requests sent to me have been answered to the best of my knowledge. The envelopes for the **Passenger Pigeon** are addressed and sent to Frank King at Madison to be stuffed and mailed there. The **Badger Birder** is also addressed and mailed here in Hartford. After the decision by the Board, there will be no more student memberships. Present membership stands at 974 with 54 libraries in addition. (Many memberships are "joint" bringing the total to about 1200.)

Mrs. Earl Schmidt (Membership Chairman)

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PUBLICATIONS — The annual supply of mimeograph stock for publications of the **Badger Birder** was printed and delivered to the editor.

All necessary letterheads and envelopes were printed and supplied to the various Board members as their needs required.

Printed statement forms and envelopes were furnished to the Membership Chairman and the Society's membership brochure was revised, up-dated and re-printed.

The publication committee chairman attended all meetings of the Board except Jan. 1970 meeting.

Alfred O. Holz (Publications Chairman)

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STEENBOCK AWARD — There were no inquiries about the Steenbock Award due to my own fault for not publishing it in the **Passenger Pigeon** and the **Badger Birder.** Hope this will be corrected next year.

Clara Hussong (Steenbock Award Comm. Chmn.)

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EDUCATION — There were fewer than usual requests for the use of bird slides for programs but many letters for information on many bird subjects. All were answered. I plan to write an article on how to plan and present bird programs to be published in the **Passenger Pigeon.** For good programs we will need many more slides especially of habitats (sandy country, marshes, etc.) so that birds can be discussed in relation to their environment.

Clara Hussong (Education Comm. Chmn.)

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ADVERTISEMENTS — Ads in the **Passenger Pigeon** increased 50% this year and you now have advertising revenue of $300.00 per year. If any of our members have firms who would be willing to advertise in our publication, I would be happy to discuss this with them. Leads for potential advertisers will be welcome.

Carl Hayssen, Jr. (Advertising & Endowments)

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FIELD TRIPS — As field trip chairman I attended all four meetings of the Board and handled the summer and fall campouts at L. Tomahawk and Honey Creek. Also field trips to Cedar Grove, Petenwell-Necedah and Milwaukee attended by anywhere from 30 to 100 people, plus a work week-end at Honey Creek and the Walk Up the Valley.

Handled record sales for WSO Supply. Chaired the Nominating Committee and folded approximately 11,000 **Badger Birders** with major help from my wife, Claire, daughter Joi and son Jay. Plus usual assistance from Dave Bratley and Ed Larson. Also on three occasions delivered the **Birder** to Norma Schmidt in Hartford for addressing and mailing.

Edward Peartree (Field Trip Chairman)

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RESEARCH — During the past year the Research Committee has been concerned primarily with studies of the Osprey and the Migrant Shrike.

Osprey study — Charles Sindelar volunteered field work during the summer of 1969. His final report is virtually completed and will be presented to the annual convention in May 1970. We do not plan to continue on the same scale as in the past: field work in 1970 will be very much curtailed or discontinued entirely.

Migrant shrikes — Thomas Erdman has worked up his material on the present distribution of shrikes in Wisconsin and will report at the convention. In 1970 he plans to collect a few shrike eggs (if any can be found) for pesticide analysis.

A new study — the status of herons in Wisconsin has been started by Thomas Erdman. It is too soon to show results: the study will be continued in 1970.

The committee has been some (small) help to Howard Young in his Mockingbird study but cannot take credit for this as a Committee sponsored project.

Thomas Erdman, Charles Sindelar, F. and F. Hamerstrom, co-chairmen

CONSERVATION — The activities of man that degrade the environment and thus directly or indirectly have adverse effects upon bird life have received more attention this year than at any previous time in the history of the United States. In fact the entire world has focused considerable attention on these problems.

The WSO has taken an active role in leading to a solution of the most grave problems. The outstanding accomplishment of the year was the action of the state legislature to ban the use of DDT in Wisconsin except under emergency conditions which will be determined by the new Pesticide Review Board.

BOOKSTORE — Income—

1969 Convention (cash and orders)	$1,651.65	
Mail Orders (350 filled during 1969)	4,403.71	
Total Income	$6,055.36	$6,055.36
Expenses —		
Books and merchandise purchased	$4,220.96	
Postage and mailing supplies	153.57	
Office (electricity and supplies)	144.80	
Refunds	8.57	
Total Expenses	$4,527.64	$4,527.64
Turned over to WSO for land		$1,500.00

Harold Kruse (Manager)

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EDITOR, PASSENGER PIGEON — Since the last annual meeting four issues of the **Passenger Pigeon** have been published and distributed. The summer issue of 1970 and an extra publication: "Extreme Arrival and Departure Dates" for Wisconsin birds is in process at the printers and will be out this summer.

In the future our goal is — **A.** Keep up to date. **B.** Try to continue to improve our magazine. We believe our journal is close to the best of its type in the country. But, we're far from satisfied. Avoidable mistakes continue to occasionally embarrass us but we will try harder. The Editor is still learning. **C.** We want to especially encourage more young people to contribute — writing, photography and artistry. They represent our future. **D.** We hope to possibly get field notes published sooner. This will require considerable work for seasonal editors but we are going to try.

Thanks are much deserved by the Seasonal Editors, the Associate Editor, our Circulation Manager and Membership Chairman for getting the magazine out. Above all thanks to the authors and contributors, past and future. Keep those manuscripts coming.

C. A. Kemper (Editor)

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Major problms affecting bird life still include — (1) Direct mortality from the use of certain pesticides. (2) Degradation of habitats by a wide variety of pollutants, certain agricultural, forestry and resource exploitation practices. (3) The frightening increase in reproductive failures which may result in the loss of many bird species that feed largely on fish and other aquatic foods. (4) Disastrous effects of oil spills in various part of the world.

The proposed Project Sanguine threatens thousands of square miles of habitat in northern and central Wisconsin and may also have adverse physiological effects upon birds and other wildlife.

The public hearing before the Department of Natural Resources on the regulation of pole-trapping of predatory birds in Wisconsin was supported by WSO, the Audubon Society and other Conservation groups. Our attorney, Robert W. Lutz, took a very active role in reviewing the administrative regulations covering the issuing of permits and the supervision of pole-trapping operations. Hopefully our DNR will exert much close supervision of and will develop stricter regulations of pole-trapping in the future.

Frederick M. Baumgartner (Chairman)

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(END OF PREPARED STATEMENTS)

In addition Dr. Baumgartner spoke of watching carefully for results of the DDT action and, in view of the increasing popularity of man-made lakes, he suggested that we expect DNR to review carefully what the effect of such operations and the resulting real estate developments would mean to the whole environment. Intelligent land usages and zoning laws are of vital interest to every citizen.

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EDITOR — BADGER BIRDER — Mary Donald said that 11 issues of the **Birder** had been sent out since the last Convention, and there will be five more this year. She thanked those who have helped by furnishing material, and the chain of workers— Lowell Hall, Jim Fuller, the Peartrees and Norma Schmidt who process the printing, folding, mailing, etc.

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OLD BUSINESS — Sincere appreciation was expressed to Sam Robbins who resigned as Associate Editor after many, many years of faithful service and best wishes were extended to Norval Berger who has kindly consented to assume that responsibility.

Paul Romig asked what action had resulted from the pole-trapping hearings. Frank King said that pole-trapping was still a last resort but that all other methods would be tried first and that inspection and more efficient follow-up procedures would be used; Great Blue Herons and Kingfishers are now protected around hatcheries except in extreme cases and the Great Horned Owl is protected state-wide. Pres. Hendrick highly commended Mr. Romig and Mr. Lutz for their painstaking work in gathering evidence for the hearing.

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NEW BUSINESS — A letter from a dissatisfied person, cancelling membership and accusing WSO of being a "Do-Nothing" Society, precipitated an animated discussion of the role of the Society in the modern world. The present emotion-packed awakening to environmental needs does call for intelligent action. Since WSO is legally restricted by its non-profit status from trying to influence legislation it is up to the members as individuals to exert pressures for good legislation and local procedures. This can be done personally or through one or more of the organizations actively working in these fields. WSO's need to satisfy the diverse interests of its 1100 members requires a delicate balance between the tremndous importance of continued scientific research and the equally important need to arouse and keep a sustained interest among the amateurs, many of whom are just beginning to realize the vital place "Bird Study" holds in solving ecological problems. The effectiveness of a Society is shown by growth in numbers and influence. Our bulletin does an excellent job in maintaining fellowship and the **Passenger Pigeon** is held in high regard in ornithological circles. A motion by Dr. Young that the Society commend Dr. Kemper for his past work as Editor and leave future decisions in selection of material to him was approved.

The question of WSO's responsibility in regard to the many small nature study groups of the state and their potential in helping each other was brought up by Ed Prins. Mrs. Hussong explained about the work done in providing slides, program material and advice and the outreach of the Society through her Committee. After discussion, Mr. Prins moved that a committee be formed for the purpose of seeking affiliation with local groups within the state. Motion carried.

Louise Erickson asked the reason for there having been no requests for the Steenbock Award. Mrs. Hussong regretfully feared that she had not published it enough and promised to promote it more fully next year. The project of bringing more young people into the mainstream of the Society's endeavors seems to be quite well on the way as exemplified by the work done here at Fond du Lac. Judge Simpson complimented the local committee on the program, saying that the papers heard during the day were equal if not superior to any that he had heard at an Audubon Convention.

The 1971 Convention being a homeless waif, the question "Must there be a SPRING Convention?" drew a decided "YES" vote. Walter Scott spoke of the National Audubon Society Convention to be held in Milwaukee in 1971 and hoped that the Board would find some way to welcome it to Wisconsin, and perhaps might be able to participate in their programs. A separate business meeting would be necessary to satisfy legal requirements but something might be worked out. Mr. Gromme told of several successful joint meetings of various groups in the past and it was decided that the matter would be looked into and brought before the Board of Directors for consideration.

The nominating committee — Edwin Larson, Norma Schmidt and Edward Peartree, Chmn., presented the following slate of candidates: President, William Pugh, Racine; Vice-President, Rockne Knuth, Sarona; Treasurer, Phyllis Holz, Green Bay; Editor, Dr. Charles Kemper, Chippewa Falls; Secretary, Hazel Cox, Beloit. There being no nominations from the floor, a motion that the nominations be closed and the secretary instructed to cast a unanimous ballot for said slate received approval. It was so done. Mr. Hendrick, saying that he had not found it hard to be President with a Board of Directors, coming from all over the state, paying all their own expenses and being most co-operative and efficient in handling the many problems of the increasing business of the Society, restated the standing invitation to members to attend these meetings and handed the gavel over to the incoming President William Pugh. Mr. Pugh accepted gracefully and asked that the members of the Board meet briefly with him immediately following the banquet.

There being no further business, the meeting was adjourned at 5:30 p. m.

Respectfully submitted,
Hazel Cox, Secretary

Book Reviews

A GUIDE TO THE BIRDS OF SOUTH AMERICA

Author: Rodolph Meyer de Schauensee

Price $20.00

Auspices: The Academy of Natural Sciences of Philadelphia

Publisher: Livingston Publishing Co., Wynnewood, Pa., 19096

The Curator of Ornithology at the Academy of Natural Sciences of Philadelphia has already written a monumental guide to the **Birds of Columbia,** and **The Species of Birds of South America and Their Distribution.** This book presents in 470 pages, fifty pages in color and black and white, plus line drawings over 600 of the 865 genera of this tremendous continent and describes no less than 2,924 species. This is the continent with the richest avifauna in the world. There are naturally many gaps in the knowledge of South American birds. But this book brings together for the first time in a single volume a comprehensive guide of convenient size.

The introduction is brief and perhaps somewhat sketchy. A number of corrigenda and addenda are provided which were found after the book was printed, too late to be included. It is likely that this volume will undergo future revisions as more and more data and knowledge are accumulated. The illustrations are by Earl Poole, John R. Quinn and George M. Sutton. Some of them are the same as the author's, **Birds of Columbia.**

The distinguishing characters of each bird are recorded, supplemented by range and habitat notes. Keys for identification have been designed to aid in the larger families. For example there are 234 different antbirds described, 32 thrush species, and 233 hummingbird species! To condense or even outline so many species is quite a feat. This is an excellent reference, an attractive guide and while not as explicit as Peterson's or Robbins' guides to the birds of North America, it will be

most useful to both the amateur and professional ornithologist. No bird student going to South America would want to be without this volume. It is fascinating to compare the descriptions and illustrations of this book with John Dunning's portraits. – Ed.

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PORTRAITS OF TROPICAL BIRDS

Author: John S. Dunning

Price $20.00

Auspices: Cornell Laboratory of Ornithology

Publisher: Livingston Publishing Company, Wynnewood, Pa. 19096

It is interesting that this beautiful work was printed in the Netherlands. Perhaps this explains the exquisite workmanship of the color reproductions. They are truly dazzling. There are 72 color plates, some the first for the species. The text accompanying each portrait is quite brief, probably not always necessarily from lack of space, but lack of information. However, the main thrust of the book is photographic.

There is a chapter at the end which presents some of the technical aspects of the close-up photography, particularly in reference to the equipment and methods. This alone is of particular interest to the bird photographer.

Olin Pettingill, Jr., a highly skilled photographer and ornithologist, has a foreword. The author, John S. Dunning, is a Yale University graduate who, on his retirement from business, set himself the goal of photographing as many neotropical birds as time and effort allowed. He indicates that there may be future volumes. I for one will like to add these to my library. I repeat, these portraits are absolutely stunning. – Ed.

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BIRDS OF GUATAMALA

Author: Hugh C. Land with color plates by H. Wayne Trimm and the Author (397 pp, 44 color plates, 5 x 7½)

Price $10.00

Publisher: Livingston Publishing Co., Wynnewood, Pa. 19096

Auspices: International Committee for Bird Preservation, Pan American Section

Here is a beautiful volume which is both a beautiful library text and a much needed field guide. Guatemala is the most western and northern of the Central American republics. It borders two oceans and four neighboring countries. It is slightly smaller than Wisconsin but has a very varied terrain. There is a tropical zone with three subdivisions: the Caribbean lowland, the Pacific lowland, and the arid interior. There is a subtropical zone – a transitional area between the Highlands and the Lowlands – and a temperate zone or montane zone which consists of two separate mountain areas. The variety of life zones and unique geography makes for about 600 resident species plus about 134 migratory species. This makes Guatemala one of the great bird-watching countries on earth.

The introduction deals in some detail with the ecology, geography, and ornithological history of Guatemala. A brief section at the end of the book is devoted to the traveler from the temperate latitudes who is interested in bird watching in Guatemala. There is a very extensive bibliography.

It appears to be an excellent book with detailed distributional maps. There is concise data on range, subspecies, status, elevation, habitat and description and supplementary remarks. There are no comments on voice.

The author, Hugh Land, a brilliant young ornithologist and teacher succumbed at the age of 39 to Hodgkins disease in 1968 – two years before publication of this landmark work. He left a treasure behind for all of us.

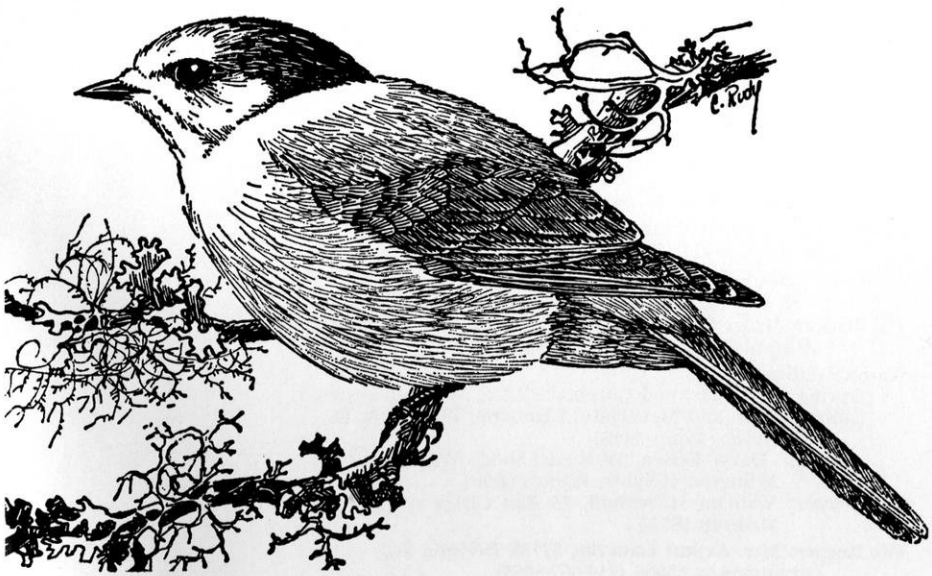
CORRECTIONS and REVISIONS to WISCONSIN BIRD RECORDS

Mute Swan – on page 59 – under Exceptional Dates column, insert "also February and March, 1970".

Cinnamon Teal – Spring Arrival column – on page 90, delete April 11, 1959, etc., and insert April 10, 1971. Don Follen, Sr.

Canada Warbler – page 128 – remove Spring Arrival record and insert April 30, 1970. Kenneth Lange.

Common Redpoll – page 132 – strike out May 21, 1956, etc., and replace it with May 31, 1970. Daryl Tessen.



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