



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

The passenger pigeon. Volume 30, Number 4 Winter 1968

Madison, Wis.: Wisconsin Society for Ornithology, Winter 1968

<https://digital.library.wisc.edu/1711.dl/E7VMCRO5KPRJT9A>

<http://rightsstatements.org/vocab/InC/1.0/>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

A MAGAZINE OF WISCONSIN BIRD STUDY



The Passenger Pigeon

Winter 1968

VOLUME 30 NUMBER 4

PHOTO BY

WISCONSIN DEPARTMENT
OF NATURAL RESOURCES

PUBLISHED
QUARTERLY
BY

THE WISCONSIN SOCIETY FOR ORNITHOLOGY, INC.

IN THIS ISSUE

	Page
The 1967 Wisconsin Christmas Bird Count	151
By William L. Hilsenhoff	
The Effect of Color on the Temperature of Bird Boxes	164
By Donald J. Hendrick	
Problems and Problem Areas of Pesticide Use	168
By Walter E. Scott	
Letters to the Editor	173
Robert Lutz, Rockne Knuth, Hamerstroms, Mary Staeger, Raymond Anderson	
Sandy's Gone	176
By John Semo	
Field Notes—The Winter Season	178
By W. L. Hilsenhoff	
By the Wayside	186
Annual Business Meeting	187
In Memoriam—Howard Bast	190

We are indebted to Mrs. Carol Rudy of Summit Lake, Wisconsin for the beautiful line drawings in this issue.

THIS ISSUE WAS PUBLISHED ON FEBRUARY 20, 1969

Volume XXX, Number 4

(Oct.-Dec.) 1968

THE PASSENGER PIGEON, official publication of the Wisconsin Society for Ornithology, Inc., is published quarterly at 821 Williamson Street, Madison, Wisconsin 53703. Classes of membership and annual dues: Active \$4.00 (Students \$2.00). Husband-and-Wife \$5.00. Sustaining \$10.00. Life \$75.00. Patron \$100.00 or more. Library \$2.00. At least \$1.75 of each annual membership (\$1.50 in case of a student membership and Wisconsin Library subscriptions) is set aside to cover subscriptions to The Passenger Pigeon. Send membership dues to the membership chairman, Mrs. Earl Schmidt, 450 Seventh Street, Hartford, Wisconsin 53027. Send change of address to the membership chairman. Manuscripts are invited. Send them to the editor, Charles A. Kemper, 733 Maple Street, Chippewa Falls, Wisconsin 54729.





The 1967 Wisconsin Christmas Bird Count

By WILLIAM L. HILSENHOFF

Although the weather was unseasonably mild in November and early December, during the December 20-January 2 Christmas Count period the weather was generally far from ideal. Cold, fog, and strong winds caused some of the counts to be cancelled, the 66 counts made by 594 observers being the lowest total since 1964. With warm weather preceding the count period, one would have expected lingering migrants to swell species totals, but the number of species found in 1967 (110) was the lowest since 1961. This was probably the result of fewer counts, the inclement weather under which many of the counts were conducted, and a lack of snow to drive the birds to feeders, roadsides, and stream banks.

Ojibwa, in Sawyer County, was the only new count. Counts at Iron Belt, Summit Lake, Antigo, and Ogema were again taken after not being conducted in 1966. Two counts were made at Kenosha and Green Bay, and since the areas overlap, there was undoubtedly some duplication. Two counts were also made at Iron Belt, but the one made by Phill Vanderschaegen was included as "birds seen during the period but not on the day of the count". Two counts made January 7 were also included, although they were not made during the count period. The coldest count was at Fifield, where temperatures reached a high of only -10°F and were as low as -30°F . The highly organized Madison count again produced the greatest numbers of species (69), and the great effort

by the Appleton group produced the second highest total (65), 16 more than last year. The only other counts on which 50 or more species were seen were Milwaukee (53) and Waukesha (52).

The counts are numbered from north to south, and their exact locations are illustrated in figure 1. Species seen on 12 or more counts are reported in table 1, while those seen on less than 12 counts are reported in table 2. Details of the counts are summarized in tables 3 and 4.

In addition to the species recorded on the counts, 5 more were seen during the count period but not on the day of the count. These were a Long-billed Marsh Wren and a Varied Thrush at Appleton, a Barn Owl and a Harlequin Duck at Racine, and a Green-winged Teal at Wausau.

The two Chipping Sparrows at Appleton represent the only species not previously reported on a Wisconsin Christmas Count. Other highlights included a Blue-winged Teal at Madison, a Surf Scoter at Racine (first record since 1957), a Golden Eagle at Alma, Killdeer at Milton and Milwaukee, a Glaucous Gull at Superior, a Black-backed Woodpecker at Milwaukee, and Myrtle Warblers at Racine and Waukesha. The relative abundance of the various species during the Christmas period is discussed under the **Field Notes**.

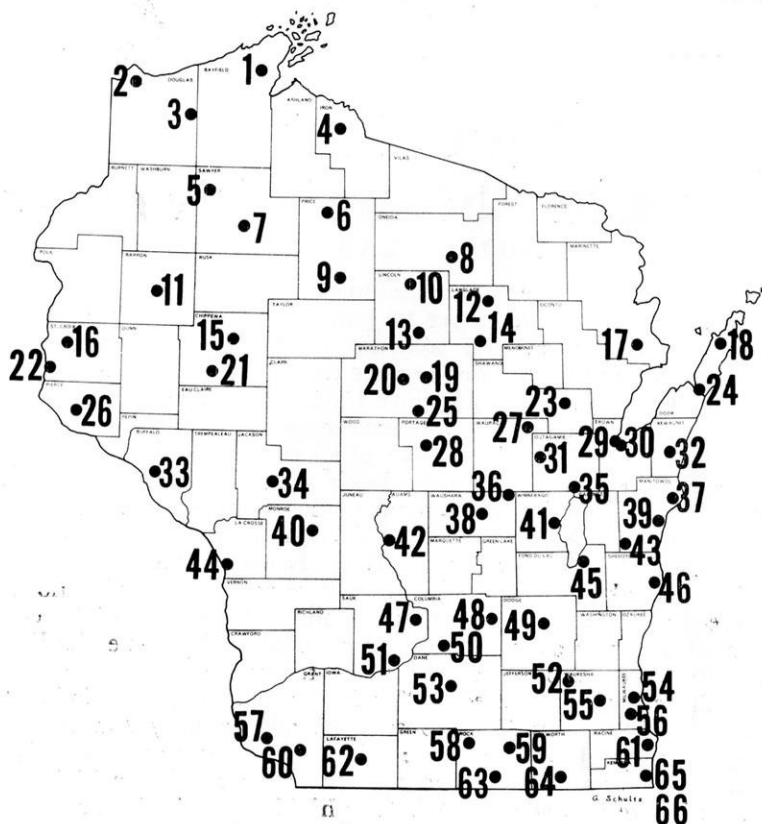


Figure 1. Location of the counts.

TABLE 1. BIRDS SEEN ON 12 OR MORE COUNTS

Count Number	Bayfield	Superior	Brule	Iron Belt	Hayward	Pittfield	Ojibwa	Rhinelander	Ogema	Tomahawk	Barro	Summit Lake	Merrill	Antigo	Jim Falls	New Richmond	Peshigo	Ephraim	Mausau	Karathon	Chippewa Falls	Hudson	Shawano
Willard	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Black Duck	20	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Common Goldeneye	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Common Warganser	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Red-tailed Hawk	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Rough-legged Hawk	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Bald Eagle	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Marsh Hawk	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Sparrow Hawk	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Ruffed Grouse	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Ring-necked Pheasant	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Herring Gull	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Mourning Dove	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Great Horned Owl	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Snowy Owl	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Barred Owl	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Belted Kingfisher	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Yellow-sh. Flicker	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Pileated Woodpecker	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Red-bell. Woodpecker	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Red-head. Woodpecker	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Hairy Woodpecker	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Downy Woodpecker	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Horned Lark	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Blue Jay	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Common Raven	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Common Crow	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Black-cap. Chickadee	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tufted Titmouse	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
White-b. Nuthatch	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Red-b. Nuthatch	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Brown Creeper	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Robin	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Golden-cr. Kinglet	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Cedar Waxwing	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Northern Shrike	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Starling	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
House Sparrow	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Red-winged Blackbird	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Common Grackle	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Cardinal	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Kinglet	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3	6	9	60	1	49	108	22
Tree Toad	26	26	28	2	2	2	28	7	2	2	2	2	1	1	41	3							

Table 1. (continued)

	Sturgeon Bay	Dancy	Ellsworth	Clintonville	Stevens Point	Green Bay I	Green Bay II	Shiocton	Kewaunee	Alma	Black River Falls	Appleton	Fremont	Two Rivers	Wautoma	Manitowoc	Tomah	Oshkosh	Adams	Kiel	LaCrosse	Fond du Lac	Sheboygan
Count Number	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
Mallard	250	..	2	..	..	525	319	..	..	..	..	370	..	..	16	35	..	25	6	..	168	..	..
Black Duck	6	..	..	..	..	127	367	..	..	..	..	350	..	..	2	136	..	..	13	..	3	..	..
Common Goldeneye	13	..	..	..	32	..	14	..	115	..	..	369	..	..	..	133	..	..	43	200	4	..	..
Common Merganser	3	..	..	..	..	..	5	..	75	..	..	21	..	..	..	18	..	..	112	..	49	..	..
Red-tailed Hawk	..	..	6	..	..	..	3	..	7	..	14	27	12	..	2	2	..	12	..	2	9	3	..
Rough-legged Hawk	..	..	..	..	1	1	1	4	4	..	1	31	51	..	..	..	2	1	..	..	1	2	..
Bald Eagle	..	..	2	..	..	..	1	..	1	..	7	..	..	..	..	..	1	3	..	..	1	2	..
Marsh Hawk	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	2	1	..	40	..	2	..	..
Sparrow Hawk	..	..	..	..	..	2	1	1	..	..	..	14	2	..	..	1	..	..	1	..	2	1	..
Ruffed Grouse	3	1	..	..	13	..	..	2	2	38	..	126	10	1	13	3	..	2	..	1	3	1	..
Ring-necked Pheasant	..	1	..	..	..	9	20	16	..	..	3	126	..	9	5	31	..	10	..	..	1	10	..
Herring Gull	..	..	1	..	..	10	..	650	..	..	..	4	208	..	20	65	..	..	..	..	..	10	..
Mourning Dove	..	..	..	7	7	110	1	14	12	3	..	197	16	20	20	53	..	50	..	..	..	8	..
Great Horned Owl	..	..	2	..	3	..	..	..	..	1	..	..	..	..	3	..	..	1	..	..	..	2	..
Snowy Owl	..	..	..	..	..	4	5	..	..	..	..	1	..	..	2	2	..	..	..	..	..	..	..
Barred Owl	..	..	2	..	..	..	..	..	..	3	..	1	..	..	1	..	..	..	..	..	..	..	..
Belted Kingfisher	..	..	..	2	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..
Yellow-sh. Flicker	..	..	1	..	..	..	..	..	..	..	9	1	..	..	3	1	..	..	..	..	..	..	..
Pileated Woodpecker	..	..	2	..	1	..	..	..	..	3	1	..	..	..	3	..	2	..	..	..	..	..	..
Red-bel. Woodpecker	..	..	7	1	3	2	2	7	..	26	1	3	..	15	..	1	1	..	..	..	6	1	..
Red-head. Woodpecker	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	2	..	..	..	..	..	..
Hairy Woodpecker	..	17	1	17	7	4	12	..	18	16	18	7	2	53	7	13	1	13	..	4	8	5	2
Downy Woodpecker	5	1	26	1	24	15	4	25	4	25	24	51	9	10	72	18	4	20	1	12	16	10	5
Horned Lark	..	..	1	..	..	..	36	4	..	..	..	23	18	..	..	..	..	..	..	..	2	..	..
Blue Jay	5	20	39	10	115	61	2	24	25	118	47	88	42	11	127	58	5	51	2	12	45	7	7
Common Raven	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..
Common Crow	..	82	48	7	102	20	4	19	26	78	16	300	62	..	185	59	46	38	17	6	39	19	175
Black-cap. Chickadee	9	10	97	10	179	10	..	71	17	176	57	31	32	17	266	55	19	7	12	19	29	36	6
Tufted Titmouse	..	..	2	..	1	2	..	..	..	4	3	1	..	..	..	..	1	..	..	..	..	..	..
White-br. Nuthatch	..	2	31	1	37	9	4	32	5	79	43	60	19	2	99	9	14	27	2	6	30	9	4
Red-br. Nuthatch	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..
Brown Creeper	..	2	5	..	4	3	1	4	..	..	5	28	1	..	3	..	1	6	..	..	5	1	1
Robin	..	..	..	..	..	4	..	..	..	..	..	4	..	..	..	4	2	..	1	..	..	1	1
Golden-cr. Kinglet	..	..	..	..	9	..	..	..	..	..	..	2	..	5	..	7	..	30	..	..	8	4	..
Cedar Waxwing	2	..	..	..	..	5	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	1
Northern Shrike	..	2	..	..	..	1	..	2	..	3	..	2	..	1	..	..	..	1	..	..	..	..	..
Starling	2	25	139	8	60	565	28	145	210	50	20	739	166	9	126	96	250	308	105	45	460	284	40
House Sparrow	26	695	770	150	1057	1325	229	876	160	2237	206	2625	975	164	554	456	86	1530	81	890	1039	273	80
Red-winged Blackbird	..	..	..	..	..	4	1	3	..	..	..	1	2	..	..	..	..	20	..	..	626	..	..
Common Grackle	..	..	..	..	..	2	..	..	1	..	..	7	4	..	..	..	7	..	..	..	12	..	1
Cardinal	..	4	43	2	8	14	4	18	6	199	36	66	30	..	79	15	6	19	4	12	64	1	4
Evening Grosbeak	..	..	..	..	..	..	..	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..
Purple Finch	..	..	7	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
Pine Siskin	..	..	..	..	..	..	..	..	..	..	8	4	..	..	..	..	..	..	..	..	..	..	..
American Goldfinch	..	3	5	30	225	..	1	6	125	17	86	37	4	2	110	4	..	..	13	..	114	20	..
Slate-colored Junco	2	3	44	15	98	130	7	27	20	186	104	139	63	9	397	103	22	81	1	67	76	29	12
Oregon Junco	..	..	..	1	1	..	..	..	..	..	1	1	..	1	..	6	..	..	..	..	..	..	..
Tree Sparrow	..	7	151	6	40	34	4	259	25	240	..	148	102	8	10	28	24	168	16	3	411	33	1
Song Sparrow	..	..	2	..	1	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	1	..	..
Lacland Longspur	..	..	8	..	..	23	..	70	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Snow Bunting	..	20	..	..	575	70	50	215	175	..	..	535	..	4	100	..	..	30	35	25	..	8	..

Table 1. (continued)

	Baraboo	Randolph	Horicon	Lodi	Mazomanie	Oconomowoc	Madison	Milwaukee	Maukesha	Hales Corners	Beetown	Evansville	Milton	Cornell	Racine	Darlington	Beloit	Lake Geneva	Kenosha I	Kenosha II	Number of Counts	Total Individuals
Count Number	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66		
Mallard	..	..	24	150	224	292	1391	3040	17	157	..	..	..	..	550	..	110	8	..	..	35	8712
Black Duck	..	8	3	..	2	64	56	176	31	77	..	..	..	..	154	..	..	4	..	..	25	2820
Common Goldeneye	..	..	..	..	19	*	446	5165	17	465	6	..	..	..	1318	..	486	700	54	47	35	10380
Common Merganser	..	..	..	..	78	*	335	3	..	14	..	..	..	..	115	..	2	300	4	5	19	1204
Red-tailed Hawk	11	3	4	..	13	16	8	4	18	8	28	3	7	2	10	11	12	8	14	..	32	282
Rough-legged Hawk	2	5	7	..	7	4	1	..	7	..	2	1	14	1	10	5	4	2	8	..	31	191
Bald Eagle	*	..	..	..	19	..	..	..	..	..	34	..	..	..	..	2	..	..	..	..	14	115
Marsh Hawk	..	1	2	..	..	1	1	..	6	..	3	..	1	1	..	1	1	4	..	..	20	37
Sparrow Hawk	..	1	..	..	2	2	1	5	1	5	2	1	..	5	11	1	..	..	6	..	25	76
Ruffed Grouse	6	..	..	..	7	..	2	..	..	..	5	..	..	..	..	..	..	..	..	..	34	183
Ring-necked Pheasant	1	6	5	..	3	4	25	65	8	..	..	..	3	6	85	..	22	5	9	..	30	507
Herring Gull	..	..	3	..	..	*	77	1238	42	402	..	..	..	..	2087	..	*	30	61	20	5049	
Mourning Dove	26	6	..	..	75	3	93	41	6	*	40	..	..	4	17	39	3	35	..	11	34	1140
Great Horned Owl	..	2	..	..	..	..	7	..	2	1	..	..	..	2	1	..	2	..	..	..	18	42
Snowy Owl	..	..	..	..	..	..	1	2	..	..	..	..	..	..	1	..	..	..	..	1	12	25
Barred Owl	1	..	..	..	1	..	1	..	1	..	2	..	..	1	..	..	*	1	..	..	14	18
Belted Kingfisher	..	..	..	..	1	1	2	..	2	..	5	..	..	7	..	..	..	2	..	..	16	30
Yellow-sh. Flicker	..	..	..	..	2	*	..	2	2	..	17	..	..	1	..	..	*	12	2	..	13	54
Pileated Woodpecker	..	..	..	..	3	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	18	26
Red-bel. Woodpecker	4	..	..	2	18	2	10	7	6	*	27	3	4	9	1	1	6	2	3	..	37	209
Red-head. Woodpecker	..	1	..	..	..	2	2	..	..	..	14	2	..	7	*	1	..	1	..	..	12	35
Hairy Woodpecker	4	*	..	2	9	13	22	7	40	..	30	5	6	7	7	..	4	10	4	..	56	493
Downy Woodpecker	11	4	1	2	20	21	53	35	65	2	30	5	32	19	18	1	59	32	13	..	64	960
Horned Lark	..	5	..	..	12	3	2	..	4	4	38	237	..	1	15	22	32	30	..	..	24	531
Blue Jay	80	22	8	14	74	29	138	27	61	6	100	9	13	65	17	10	31	15	11	5	66	2752
Common Raven	..	..	..	..	..	..	..	..	..	..	..	565	382	72	1857	62	13331	43	67	..	59	32980
Common Crow	63	39	10	1	172	51	404	273	805	13000	120	565	382	72	1857	62	13331	43	67	..	59	32980
Black-cap. Chickadee	40	5	4	5	53	29	123	70	137	7	49	11	13	106	10	10	58	55	4	..	64	3321
Tufted Titmouse	7	..	..	4	6	4	27	1	9	3	17	..	4	23	..	2	13	..	..	..	24	148
White-br. Nuthatch	23	5	2	4	24	15	76	21	59	2	49	2	9	35	7	..	33	20	2	..	61	1157
Red-br. Nuthatch	..	1	..	..	..	..	..	*	..	..	..	..	..	..	2	..	..	..	..	..	12	30
Brown Creeper	..	..	..	..	4	1	15	7	2	1	..	..	1	..	..	..	4	4	..	..	37	138
Robin	..	2	..	..	..	..	4	17	2	..	..	..	..	1	9	..	*	1	..	..	20	63
Golden-cr. Kinglet	..	..	1	..	..	2	12	..	..	3	..	..	..	..	..	..	..	..	..	..	18	109
Cedar Waxwing	*	..	..	..	..	..	43	38	38	21	..	..	..	..	9	..	..	19	2	*	14	207
Northern Shrike	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	18	25
Starling	47	347	16	15	110	200	762	1123	964	517	288	130	556	243	1411	173	3204	280	318	89	64	15608
House Sparrow	292	990	72	200	864	1463	1802	957	2648	315	3286	129	2083	2011	773	1140	4284	228	663	69	63	45702
Red-winged Blackbird	..	..	568	..	..	..	48	1	157	..	..	..	..	9	454	..	..	1	112	..	15	249
Common Grackle	..	..	6	..	..	1	130	7	10	5	..	..	8	..	31	..	4	1	5	..	23	249
Cardinal	22	3	1	7	196	17	136	28	68	5	124	3	9	99	26	16	119	21	4	6	54	1701
Evening Grosbeak	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	15	1215
Purple Finch	..	..	..	1	1	3	5	11	3	..	1	1	3	..	..	..	..	..	..	..	22	240
Pine Siskin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	13	945
American Goldfinch	..	12	..	..	36	93	170	64	91	3	38	..	36	58	36	73	31	26	14	..	52	3098
Slate-colored Junco	201	48	12	25	737	402	424	213	541	73	306	109	100	277	260	99	1048	42	252	15	56	7134
Oregon Junco	1	..	..	..	1	5	..	1	3	..	..	..	..	..	..	..	..	..	..	3	15	28
Tree Sparrow	59	105	123	2	209	868	933	27	948	11	653	113	389	556	388	1409	2736	55	340	5	50	11969
Song Sparrow	..	..	1	..	1	6	2	3	..	..	..	..	..	2	2	..	5	3	1	*	17	38
Lapland Longspur	..	70	..	..	6	..	500	..	4	..	1	33	..	1400	..	200	..	200	..	..	16	2793
Snow Bunting	..	..	..	..	..	..	100	..	..	..	..	..	..	..	..	..	130	..	..	..	29	4041

TABLE 2. BIRDS SEEN ON LESS THAN 12 COUNTS

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Pied-billed Grebe	2	3	Appleton-1, Lake Geneva-2
Canada Goose	11	10299	Appleton-1, Beloit-6, (Fond du Lac), Green Bay I-250, Green Bay II-177, Horicon-413, Lake Geneva-500, Oconomowoc-1051, (Oshkosh), Racine-130, Randolph-7747, Waukesha-20, Wausau-4
Blue Gose	2	6	Racine-2, Sturgeon Bay-4
Gadwall	2	54	Lake Geneva-1, Madison-53
American Pintail	4	5	Appleton-2, Horicon-1, (Kenosha-1), LaCrosse-1, Milwaukee-1
Blue-winged Teal	1	1	Madison-1
American Widgeon	6	9	LaCrosse-1, Lake Geneva-1, Madison-1, Milwaukee-3, Oconomowoc-1, Racine-2
Shoveler	2	15	Madison-12, Oconomowoc-3, (Racine)
Wood Duck	5	12	Appleton-6, LaCrosse-1, Madison-2, Racine-2, Shawano-1
Redhead	7	28	Appleton-6, Hales Corners-2, (Kenosha-I), LaCrosse-2, Madison-1, Milwaukee-13, (Racine), Two Rivers-3, Wausau-1
Ring-necked Duck	3	5	Appleton-1, Horicon-3, Madison-1
Canvasback	6	155	(Fond du Lac), Hales Corners-17, (Kenosha-I), LaCrosse-1, Lake Geneva-22, Madison-86, Milwaukee-26, (Racine), Two Rivers-3
Greater Scaup	6	4706	(Fond du Lac), Hales Corners-1950, Madison-2, Manitowoc-6, Milwaukee-2555, Racine-117, Two Rivers-76
Lesser Scaup	9	70	Appleton-1, (Green Bay-I), Green Bay II-3, LaCrosse-2, Lake Geneva-18, Madison-13, Oconomowoc-1, Racine-30, Rhinelander-1, Stevens Point-1?
Bufflehead	6	284	Hales Corners-84, Kewaunee-3, Lake Geneva-2, Madison-3, Milwaukee-73, Racine-119
Oldsquaw	5	12470	Hales Corners-35, Kenosha-I-149, Manitowoc-75, Milwaukee-8505, Racine-3706
White-winged Scoter	2	8	Manitowoc-1, Milwaukee-7
Surf Scoter	1	1	Racine-1
Ruddy Duck	3	4	Green Bay II-1, LaCrosse-1, Madison-2, (Milwaukee), (Oconomowoc)
Hooded Merganser	5	12	Chippewa Falls-1, (Fond du Lac), Lake Geneva-5, Madison-4, Milwaukee-1, Racine-1
Red-br. Merganser	7	191	Adams-50, Hales Corners-4, Kenosha-I-1, LaCrosse-4, Madison-4, Manitowoc-1, Racine-127
Goshawk	2	2	Antigo-1, Fond du Lac-1

Table 2. Birds seen on less than 12 counts.

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Sharp-shinned Hawk	6	8	Alma 2, (Beloit), Fremont 1, Mazomanie 1, Oconomowoc 1, Stevens Point 2, Waukesha 1
Cooper's Hawk	7	8	Appleton 1, Barron 1, LaCrosse 1, (Madison), Manitowoc 2, Mazomanie 1, Shiocton 1, Wau- toma 1
Red-shouldered Hawk	2	3	Appleton 2, Ellsworth 1, (Milwaukee), (Ocono- mowoc)
Golden Eagle	1	1	Alma 1
Sharp-tailed Grouse	2	7	Antigo 5, (Brule), Hayward 2
Bobwhite	5	93	Beloit 12, Hales Corners 11, LaCrosse 26, New Richmond 9, Wautoma 35
Gray Partridge	4	164	Appleton 12 (Beloit), Green Bay 1 23, Milwau- kee 93, (Oconomowoc), (Oshkosh), Shiocton 6
American Coot	7	547	Horicon 3, LaCrosse 1, Lake Geneva 143, Madi- son 388, (Milwaukee), (Oconomowoc), Racine 2, Sturgeon Bay 2, Waukesha 8, (Wausau)
Killdeer	2	2	Milton 1, Milwaukee 1
Common Snipe	6	9	Hales Corners 1, Madison 3, Mazomanie 2, Milton 1, Waukesha 1, Wautoma 1
Glaucous Gull	1	1	Superior 1
Ring-billed Gull	6	78	Green Bay 1 2, Hales Corners 15, Kenosha 1 4, Lake Geneva 4, Milwaukee 48, Racine 5
Bonaparte's Gull	2	19	Kenosha I 9, Kenosha II 10
Screech Owl	10	12	Appleton 1, (Baraboo), Cornelia 1, Hales Corn- ers 1, Horicon 1, Lake Geneva 1, Madison 2, Mazomanie 1, Milwaukee 1, (Oconomowoc), (Oshkosh), (Racine), Randolph 2, (Shiocton), Waukesha 1
Long-eared Owl	7	14	(Beloit), Kenosha I 1, Kenosha II 2, Lake Ge- neva 1, Madison 1, Milwaukee 1, Oshkosh 2, Racine 6
Short-eared Owl	3	10	Beetown 5, Darlington 4, Evansville 1
Yellow-b. Sapsucker	3	3	Madison 1, Manitowoc 1, Ojibwa 1
Black-b. Woodpecker	1	1	(Brule), Milwaukee 1
Gray Jay	3	21	Fifield 16, (Iron Belt), Ojibwa 2, Rhineland 3
Boreal Chickadee	4	25	Fifield 2, Iron Belt 10, Ogema 11, Rhineland 2
Winter Wren	2	2	Cornelia 1, Hudson 1
Brown Thrasher	3	4	(Baraboo), Beloit 1, Madison 2, Two Rivers 1

Table 2. (continued)

Species	No. of Counts	Total Birds	Counts and Numbers Seen
Hermit Thrush	4	4	Appleton 1, Madison 1, Milwaukee 1, Oconomowoc 1
Ruby-crowned Kinglet	1	1	Waukesha 1
Myrtle Warbler	2	5	(Kenosha 1), Racine 1, Waukesha 4
Western Meadowlark	1	2	Randolph 2
meadowlark spp.	4	4	Appleton 1, (Beloit), Fremont 1, Madison 1, Mazomanie 1
Rusty Blackbird	6	110	Alma 1, Kenosha 11, Madison 66, Oconomowoc 5, Waukesha 36, Wautoma 1
Brewer's Blackbird	4	58	Horicon 30, Mazomanie 1, Milton 25, Waukesha 2
Brown-h. Cowbird	8	2140	Appleton 1, Horicon 2055, Kenosha 13, Madison 50, Milton 23, Oconomowoc 1, Oshkosh 1, (Racine), Waukesha 6
Pine Grosbeak	4	8	Brule 2, Merrill 2, Ojibwa 1, (Stevens Point), Wautoma 3
Common Redpoll	3	77	Appleton 6, Dancy 70, Merrill 1
Red Crossbill	5	402	Fifield 50, Iron Belt 130, Ogema 35, Rhineland 10, Summit Lake 177
White-w. Crossbill	4	110	Fifield 5, Hales Corners 9, Iron Belt 48, Ogema 48, (Summit Lake)
Rufous-sided Towhee	3	3	Chippewa Falls 1 (Ephraim), Milwaukee 1, Shawano 1, (Wausau)
Chipping Sparrow	1	2	Appleton 2
Field Sparrow	2	4	LaCrosse 3, Milwaukee 1
White-cr. Sparrow	1	1	Cornelia 1
White-thr. Sparrow	8	11	Appleton 1, Beloit 1, (Brule), Cornelia 1, Green Bay 1 1, (Kenosha 11), Madison 4, Manitowoc 1, Milwaukee 1, (New Richmond), Racine 1, (Tomah)
Fox Sparrow	3	3	Appleton 1, Fond du Lac 1, (Stevens Point), Waukesha 1
Swamp Sparrow	6	16	Appleton 1, Green Bay 1 4, Kenosha 1 4, Lake Geneva 2, Manitowoc 3, Waukesha 2

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



TABLE 3. DETAILS OF THE COUNTS

Count and Count Number	Date	Species	Observers	Parties	Party Hours	Sky	Wind	°F Temp. Range	Snow (inches)
Adams (42)	D-31	20	1	1	5	PCI	W 10	+ 5 +21	1
Alma (33)	D-30	28	10	4	35	Fair	W 5-15	+ 4 +12	0
Antigo (14)	D-30	21	9	3		F-Cl	W	- 3 +18	3
Appleton (35)	D-30	65	42	12	74	PCI-Cl	WSW 6-10	+12 +20	1
Baraboo (47)	D-26	20	10	4	28½	PCI-F	NW 5-10	- 6 0	1
Barron (11)	D-28	15	8		5¼		NW 5	-10 +10	8
Bayfield (1)	D-27	23	4	2	11	Fair	SW 10-12	-15 + 8	1
Beetown (57)	D-30	32	6	2	20½	Cl-Sn	NW 5-10	+17 +24	tr
Beloit (63)	J - 1	34	28	11	66	Cloudy	S 10-15	-10 +10	2
Black River Falls (34)	D-29	22	22	2	10	MCl	NW 5	+ 5 +10	2
Brule (3)	D-26	28	12	7	26	Fair	SW 7-10	-16 + 8	1
Chippewa Falls (21)	D-23	29	6	3	33	Cl-F	W 4-10	- 3 +15	0
Clintonville (27)	D-23	14	3	1	8	F-Cl	N 10-15	+ 3 +11	tr
Cornelia (60)	D-28	35	9	3	22	Claudy	W 10-15	+10 +18	tr
Dancy (25)	D-22	18	9	2	16	PCI	W 15-20	- 3 +10	tr
Darlington (62)	D-31	22	3	1	10¼	PCI-F	N 0- 5	-12	tr
Ellsworth (26)	D-22	28	5	2	16	PCI	NW 15-25	0 + 9	0
Ephraim (18)	J - 1	25	2	1	7½	Cl-Sn	SW 0- 8	-15 0	4
Evansville (58)	D-31	20	3	1	5	Fair	NW 10-15	- 5 +10	tr
Fifield (6)	D-31	28	5	3	18½	PCI	WNW 5-10	-30 -10	5
Fond du Lac (45)	D-30	28	12	6	18	Cloudy	W 15	+18 +22	tr
Fremont (36)	D-28	29	3	1	8½	PCI	W 2- 6	+ 2 +11	1
Green Bay I (29)	D-30	38	11	3	22½	PCI-Cl	SE 3	+ 9 +17	1
Green Bay II (30)	D-31	27	6	2	14	Fair	SW 7-14	-16 -13	2
Hales Corners (56)	D-28	34	5	2	14	PCI	WSW 2- 8	+18 +26	tr
Hayward (5)	D-28	22	3	1	7½	Fair	SW 8-10	-13 +15	2
Horicon (49)	D-20	28	1	1	10	Cl-PCI	S 15	+36 +48	0
Hudson (22)	J - 1	32	4	2	12½	Cloudy	SE 5-15	& 5 + 8	2
Iron Belt (4)	D-29	17	3	1	8½	Snow	SW 10	+ 6 +15	6
Jim Falls (15)	D-27	16	1	1	12½	F-Cl	calm	-10 + 7	2
Kenosha I (65)	D-27	35	10	4	34	Cloudy	SW 0-10	+14 +18	0
Kenosha II (66)	D-28	14	1	1	8½	PCI	NW 5	+20	
Kewaunee (32)	D-30	23	3	1	8½	F-PCI	SW 5	+ 8 +15	4
Kiel (43)	J - 1	16	1	1	7½	Snow	SW 10-20	- 8 + 6	tr

Count and Count Number	Date	Species	Observers	Parties	Party Hours	Sky	Wind	°F Temp. Range	Snow (inches)
LaCrosse (44)	D-20	43	6	3	33½	Cloudy	S 10	+32 +51	0
Lake Geneva (64)	D-30	47	7	3	27	Cloudy	W 1-5	+28 +37	0
Lodi (50)	D-30	15	4	2	8	PCI	W 8	+17 +25	tr
Madison (53)	W D-23	69	39	12	85			-1 +20	0
Manitowoc (39)	D-30	37	12	7	52	PCI	NW 10	+10 +18	tr
Marathon (20)	J - 7	14	1	1	3	Fair	W 8-15	-23 -15	4
Mazomanie (51)	J - 1	42	14	5	36	Cloudy	SW 15	-9 +7	tr
Merrill (13)	D-28	21	3	2	16	Fair	NW 0-3	-19 +13	4
Milton (59)	D-30	27	7	2	16	Cloudy	calm	+10 +23	1
Milwaukee (54)	D-30	53	27	12	73	PCI	Var. 4-9	+17 +29	tr
New Richmond (16)	D-30	27	7	2	16½	F-PCI	W 0-15	& 1 +9	1
Oconomowoc (52)	D-31	38	13	4	29	MCI-PCI	NW 15-20	-2 -12	tr
Ogema (9)	W D-22	18	1	1	5	F-Cl	SW 0-3	-4 +9	tr
Ojibwa (7)	D-30	17	2	2	6	Fair	NW 10	-12 +7	4
Oshkosh (41)	D-23	30	21	9	43	Fair	W 6	+6 +32	tr
Peshtigo (17)	D-30	19	1	1	10	PCI-Cl	SW 1-7	-20 +3	3
Racine (61)	D-30	49	22	8	62	Cloudy	W 5	+23 +28	0
Randolph (48)	D-24	27	1	1	11	F-Cl	S-NW 0-25	+20 +26	tr
Rhineland (8)	D-30	25	11	3	17	PCI	calm	-6 +11	6
Shawano (23)	D-28	21	16	3	18	Fair	NW 5-8	-8 +8	4
Sheboygan (46)	J - 1	17	3			Fair		-10	0
Shiopton (31)	D-26	31	5	1	9	Fair	W 27	-10 +6	1
Stevens Point (28)	D-30	28	21	8	64	PCI	SW 8-15	+10 +15	4
Sturgeon Bay (24)	D-30	14	2	1	7½	Fair	NW 5	+12 +25	4
Summit Lake (12)	W D-31	16	2	1	8	Fair	N 15	-30 -10	6
Superior (2)	D-29	15	1	1	9	Cloudy	S 10-20	+7 +18	1
Tomah (40)	D-30	20	3	2	9	F-Cl	NW 0-5	+13 +20	tr
Tomahawk (10)	D-27	12	1	1	7	Fair	N 0-5	-15 +15	3
Two Rivers (37)	D-21	21	10	1	8½	Cl-R	W 0-15	+40 +26	0
Waukesha (55)	D-23	52	29	8	62	Fair	W 7-14	+4 +15	0
Wausau (19)	J - 7	29	30	18	92	Fair	W 8-15	-24 -12	6
Wautoma (38)	D-30	34	11	7	46	F-Cl	NE 7-10	+20 +25	1

F=Fair

MCI=Mostly Cloudy

Sn=Snow

PCI=Partly Cloudy

Cl=Cloudy

Table 3. (continued)

Table 4. Count, location, center of count, and observers.

- Adams** (42): 1mi. S of Dellwood. W. D. Brown.
- Alma** (33): jct. I & D. P. Blanchard, K. Hillery, B. Hirschy, R. Irwin, C. A. Kemper, D. Lund, B. Moe, E. Reifenuer, N. Reifenuer, G. Willett.
- Antigo** (14): Antigo. Mrs. F. E. Drozdik, Mrs. R. N. Lehman, E. S. Holman, Mr. & Mrs. C. McClean, Mrs. E. A. McKenna, L. Schimmels, Mr. & Mrs. S. Spurgeon.
- Appleton** (35): Appleton. J. Bechler, Jr., Mrs. B. L. Browning, W. Burger, G. Clark, Mrs. C. Defferding, D. Draheim, Mr. & Mrs. J. Green, Mrs. F. Guenther, F. Guenther, Jr., Mr. & Mrs. H. Hansen, R. Kremers, E. Krushinske, Mrs. B. Lipke, Mrs. L. Lipske, Mrs. J. Maring, J. Maring, Jr., F. F. Martin, S. McLandress, M. Morton, Mrs. E. Natzke, Mr. & Mrs. H. Pasch, Mrs. R. Pearson, Mr. & Mrs. G. Richter, W. G. Roehr, C. Rohr, K. Sager, Mrs. M. Seeliger, R. Stillings, D. Tessen, Mr. & Mrs. F. Tessen, J. Vlossak, Mrs. R. Ward, Mr. & Mrs. E. Werner, A. West, D. Wolfe, W. Wright.
- Baraboo** (47): Baraboo. H. Allen, A. J. Epstein, H. Miller, S. Premo, R. Rich, T. Rich, R. Saucy, G. Scott, C. Seils, B. Wenban.
- Barron** (11): Barron. L. Bunker, A. Folstad, L. Fraley, H. Gilbertson, G. Helgeland, M. Jensen, M. Johnston, E. McDonough.
- Bayfield** (1): 7mi WSW of Bayfield. M. Baillie, M. Granlund, B. F. Klugow, Mrs. A. Potter.
- Beetown** (57): Beetown. D. Harris, J. Hinderman, T. Ingram, Sister M. Erna, Sister Marianne, D. Wildes.
- Beloit** (63): Big Hill Park. V. Anderson, B. Andrews, R. Behrens, Mr. & Mrs. R. Dougan, Mr. & Mrs. R. Ellefs, T. Ellis, F. Glenn, A. Hepler, Mr. & Mrs. L. McCartney, L. McCartney, D. McMakin, M. Maxson, L. Mezger, R. Mezger, Mr. & Mrs. R. Morse, Mr. & Mrs. R. Ohm, M. J. Palmer, L. Perry, Mr. & Mrs. R. Reppert, D. Sandgren, Mr. & Mrs. D. Stocking.
- Black River Falls** (34): Black River Falls. Mrs. R. Dimmick, A. Gearing, Mrs. J. Hagen, Mrs. A. Hagen, Mr. & Mrs. F. Haralson, Mrs. F. Harmer, Mrs. L. Helbling, Mrs. P. Hull, Mrs. L. Jones, Mrs. R. Jones, Mrs. M. Keefe, Mrs. E. Krohn, Mrs. N. Larkin, Mrs. R. Lund, Mrs. L. McDonald, Mrs. R. Mecks, C. Olson, Mr. & Mrs. H. Putnam, H. Sherwin, Mrs. W. Wilcox.
- Brule** (3): jct. 27 & B. A. Abell M. Baillie, Mrs. D. Berube, E. Degerman, J. Degerman, M. Granlund, B. F. Klugow, R. D. Klugow, Mrs. K. Magnuson, B. Norman, Mrs. C. Osborn, Mrs. D. Simonds.
- Chippewa Falls** (21): jct. 178 & S. P. Blanchard, K. Hillery, C. Kemper, D. Lund, G. Owen, E. Reifenuer.
- Clintonville** (27): Clintonville. J. Rill, K. Rill, R. Rill.
- Cornelia** (60): Cornelia. L. Grimes, C. Heidenreich, J. Hinderman, T. Ingram, D. Koehn, J. Romaker, T. Taylor, D. Wildes, H. Wilkerson.
- Dancy** (25): Dancy. M. Cousin, G. Frankwick, D. Garfield, D. Helgersen, D. Hoehn, T. Kolstad, D. Lau, K. Oim, K. Rued.
- Darlington** (63): Seymour Corners. T. Ingram, D. Wildes, L. Wilson.
- Ellsworth** (26): 2mi. S of Ellsworth. R. Behrens, S. Goddard, M. Laakso, M. Olson, S. Robbins.
- Ephraim** (18): Ephraim. Mrs. L. Hansen, R. Lukes, H. C. Wilson.
- Evansville** (58): Evansville-Marsh. E. Brakefield, J. Brakefield, R. Livengood.
- Fifield** (6): Fifield Post Office. T. Nicholls, M. L. Nicholls, G. Tryggeseth, R. Tryggeseth, A. Vincent.
- Fond du Lac** (45): jct. Tower and Coty Rds. 6mi. NE of Fond du Lac. Mr. & Mrs. D. Barry, Mr. & Mrs. F. Conover, W. Gilles, C. Knuth, Mr. & Mrs. R. Knuth, D. Krysiak, M. Meilke, A. Ruhnke, J. Ruhnke.
- Fremont** (36): jct. I & HH. Mrs. C. Defferding, D. Tessen, Mrs. F. Tessen.
- Green Bay I** (29): Bay Beach Wild Life Sanctuary. E. Cleary, Bro. Columban, M. Duquaine, H. Duquaine, T. Hall, C. Hussong, R. Koeller, Mrs. R. Koeller, E. Paulson, M. Van Vonderen, L. Yindra.
- Green Bay II** (30): Brown County Courthouse. B. Chartier, H. Lindberg, P. Romig, C. Stencil, M. Stencil, A. Weber.
- Hales Corners** (56): jct. Puetz Rd. & old 41. R. Carlson, I. Balsom, M. Donald, Fr. Hoffman, K. Priebe.
- Hayward** (5): Hayward. M. Baillie, M. Granlund, B. F. Klugow.
- Horicon** (49): jct. Main Ditch & Federal Dike. H. Mathiak.
- Hudson** (22): Afton Minn. N. Baxter, M. Olson, S. Robbins, T. Soulen.
- Iron Belt** (4): 3mi. S of Iron Belt. D. Snarski, V. Snarski, P. Vanderschaegen, B. Walvoord.

- Jim Falls** (15): Bob Creek Bridge on 178. C. E. Kube.
- Kenosha I** (65): 158 1mi. E of I-94. G. Baker, A. Brach, G. Crema, P. Dybvad, L. Erickson, B. Fiehweg, H. Hudson, D. Joslyn, T. Ludwig, M. Madsen.
- Kenosha II** (66): downtown Kenosha. J. Hamers.
- Kewaunee** (32): 7mi. E of Kewaunee. E. DeCramer, M. DeCramer, R. Lukes.
- Kiel** (43): Liberty Pole at Horseshoe Lake. M. Reichwaldt.
- LaCrosse** (44): LaCrosse County Court House. C. Gunderson, E. Lawson, F. Leshner, J. Rosso, Bro. T. Voelker, H. Young.
- Lake Geneva** (64): between Williams Bay & Lake Geneva. E. Anderson, J. Anese, M. Lehmann, C. Palmquist, R. Palmquist, P. Schulze, H. Wilson.
- Lodi** (50): Lodi. Mr. & Mrs. L. Quam, Mr. & Mrs. E. Thompson.
- Madison** (53): State Capitol. N. Ashman, T. Ashman, Mr. & Mrs. N. R. Barger, B. Barger, R. Bere, J. Birkemeier, K. Bowling, E. Brown, J. Brown, W. D. Brown, R. Davenhauer, S. Davenhauer, K. Hansen, J. Hickey, H. Irwin, M. Jarger, M. Jaffa, F. Jordon, M. Lound, S. McBurney, R. Morris, A. Nielsen, T. Nicholls, D. Remika, E. Sandburg, L. Sawyer, Mr. & Mrs. F. E. Shepherd, J. Walker, M. Walker, E. Werner, D. Willard, C. Wood, S. Wurster, O. Wynn, S. Wynn, J. Zimmerman.
- Manitowoc** (39): Manitowoc. I. Asplund, B. Brouchoud, D. Burger, Mr. & Mrs. R. J. Hallisy, Mr. & Mrs. W. Krysan, J. Meyer, F. Miller, R. Skarda, K. Sieracki, J. Steffen.
- Marathon** (20): St. Anthony's Friary. M. Wonn.
- Mazomanie** (51): 1½mi. SE of Witwen. Mrs. T. Akagi, Mr. & Mrs. T. Ashman, Mr. & Mrs. N. R. Barger, R. Bere, W. D. Brown, H. Irwin, F. Jordan, Mr. & Mrs. H. Koenig, W. L. Sachse, Mrs. R. A. Walker, D. Willard.
- Merrill** (13): NE corner of S-31, 3mi. NW of Merrill. J. Lokemoen, T. Lokemoen, A. Rusch.
- Milton** (59): Maxson cottage. V. Anderson, M. Maxson, J. Ohm, R. Ohm, B. Reppert, D. Sandgren.
- Milwaukee** (54): jct. Hampton and Port Washington Rds. N. Badten, I. Balsom, E. Basten, L. Basten, H. Bauers, J. Campbell, M. Campbell, R. Carlson, M. Dickinson, M. Decker, M. Donald, D. Freda, C. Frister, D. Frister, D. Gustafson, D. Hanbury, Rev. T. Hoffman, A. Hehn, S. LaBudde, K. Priebe, M. Pyysalo, Mr. & Mrs. A. Strehlow, Mr. & Mrs. B. Strimple, J. Tate, A. White.
- New Richmond** (16): 1mi. E of Boardman. H. Bleier, J. Conley, J. Hennessey, R. Robbins, S. Robbins, A. Senechal, P. Tweet.
- Oconomowoc** (52): 2mi. N of Oconomowoc on 67. H. Bauers, D. Blair, I. Blair, L. Crawford, J. Fuller, A. Gauerke, G. Hammel, C. Hayssen, E. Larson, E. Peartree, B. Ritchey, D. Rupnow, R. Sharp.
- Ogema** (9): Otter Trail Creek and Hwy 13. W. Hilsenhoff.
- Ojibwa** (7): Ojibwa. Mrs. S. Hole, S. Ruegger.

The DDT Fight is Your Fight !!

Support the Madison Hearings . . .

to protect you and wildlife. Send contributions to
CNRA, Box 949, Wausau, Wisconsin 54410.

Mary and Charlie Nelson

Oshkosh (41): jct. Hwys 20 and 41. W. Anderson, G. Braun, Mrs. M. Bretschneider, Mrs. P. Cochran, J. Evans, Mr. & Mrs. G. Fisher, Mrs. C. Fotte, Mrs. V. Foust, W. Gilles, J. Kaspar, R. Knuth, D. Krysiak, Mrs B. Lewis, Mr. & Mrs. F. W. Riddell, E. Siebert, G. Siebert, M. J. Smith, E. D. Stanley, M. Zellmer.

Peshigo (17): Harmony Corners. H. Lindberg.

Racine (61): G. Baker, A. Carlson, G. Crema, P. Dybrad, B. Erickson, L. Erickson, B. Fiehman, D. Garber, M. Gertenbach, J. Joslyn, D. Kuehn, G. Ludwig, T. Ludwig, M. Madsen, W. Nelson, E. Prins, B. Pugh, J. Rohan, J. A. Simpson, M. Stoffel, Dr. B. L. von Jarshow, B. Weber.

Randolph (48): 2½mi. W of Randolph on Hwy. P. C. L. Gilmore.

Rhineland (8): jct. Stevens and Davenport Sts. A. Bassett, L. Dahlstrand, N. Dahlstrand, P. DeWalt, J. Foster, D. Kemmeter, H. Larson, E. Ratliff, F. Ratliff, F. Stearns, C. Vig.

Shawano (23): Shawano. L. Baner, W. Bergman, E. Fenton, W. Guenzel, M. Hafeman, H. Handrich, K. Heinz, V. Henning, H. Irish, E. Muellenbach, D. Owen, L. Pubanz, A. Schoff, P. Schoff, H. Scholz, H. Wegenke.

Sheboygan (46): M. Fisher, J. Stolzenburg, T. Stolzenburg.

Shiocton (31): jct. Hwys 54 and M. Mrs. C. Defferding, Mrs. H. Komp, Mr. & Mrs. L. Schwall, D. Tessen, Mrs. F. Tessen.

Stevens Point (28): Main Building of State University. J. Barnes, A. M. Baumgartner, F. Baumgartner, D. Benz, A. Epple, W. Hansen, Mrs. W. Hansen, M. Harpstead, T. Johnson, O. Rice, J. Simonis, G. Stevenson, N. Stevenson, J. Wenger, R. Whitmire, B. Wievel, J. Wils, C. F. Wood, C. Yambert, P. Yambert.

Sturgeon Bay (24): Sturgeon Bay. A. Benzow, A. Frietag.

Summit Lake (12): 4mi. E of Summit Lake. Mr. & Mrs. M. Rudy.

Superior (2): 3mi. SE of South Superior. M. Granlund.

Tomah (40): jct. Hwys 12 and 21. J. Heagle, R. Heagle, H. Smith.

Tomahawk (10): Tomahawk. D. Hendrick.

Two Rivers (37): 4mi. N of Two Rivers on Hwy 42. Mrs. C. Altmann, Mrs. B. Crane, T. Haman, E. Haefner, D. King, Mrs. J. Kraupa, E. Smith, K. Smith, H. Wilsman.

Waukesha (55): jct. of Hwys D & ZZ. R. Adams, R. Adams, C. Anthes, B. Bast, H. Bast, H. Bielefeldt, J. Bielefeldt, H. Brown, O. Compton, E. Cuthbert, H. Graser, D. Gustafson, C. Hendricks, E. Hoffmann, P. Hoffmann, J. Klug, W. Klug, C. McComb, J. McComb, T. Michaud, C. Nelson, M. Nelson, S. Nelson, M. Rutenber, E. R. Rutenber, M. Sydow, A. Throne, T. Throne, E. Zimmerman.

Wausau (19): Lemke St. R. Andrews, E. Andrews, D. Bierbrauer, E. Bierbrauer, M. Binnie, J. Butzow, R. Duncan, S. Gjetson, Mrs. D. Gooding, F. Hensey, Mrs. W. Hoffman, Mr. & Mrs. A. Hundhausen, M. Hyde, M. Hyde, C. Kann, K. Kann, E. Kemps, D. Krause, F. Kuebler, R. Lane, G. Oatman, B. Pearson, Mrs. N. Peterson, M. Puchner, O. Wells, J. Williams, J. Williams, Fr. M. Wonn, Mrs. H. Zillman.

Wautoma (38): Mt. Morris. I Chipman, M. Chipman, L. Hoeft, R. Locke, J. LaFleur, H. Long, H. Long, I. Wilcox.



The Effect of Color on the Temperature of Bird Boxes

By DONALD J. HENDRICK

Tomahawk Junior High School — Tomahawk, Wisconsin

With marvelous manipulations man has maneuvered and mangled our environment to satisfy his wants and his needs. At times this manipulation has been justified, but more often than not the changes that followed have been detrimental to some species of wildlife.

The best known of all environmental changes are generally the more dramatic ones which are highly publicized, such as, the build-up of pollutants in our atmosphere, or the notorious persistent pesticide pollution of our soil and our surface waters.

Others, highly effective, but by far less dramatic, are the environmental changes involving the seemingly more insignificant wildlife species, if indeed any species of wildlife can be classified as insignificant. I am referring to changes such as replacing rotten fence posts with sturdy, more solid ones, or the replacement of wooden fence posts with steel ones. These simple acts of man, aided by adverse weather conditions in their winter range, are considered the proximate causes for the decline of the Bluebird population in the United States.

Another environmental change brought about by man reversed the trend of this species' decline when natural nest sites were replaced by erecting large numbers of artificial nesting places—bird boxes. This highly commendable cause for conservation was inaugurated by WSO and implemented through the 4-H Clubs in Wisconsin.

We have learned, however, through many years of sad experiences, that no environmental changes should be made without a thorough understanding of all of the ramifications that may accompany such a change.

If we are going to place some 4,000 bird boxes into the field to benefit the Bluebird, we should first know what conditions this artificial environment will provide for this and other cavity nesting species.

In 1965 and 1966, I investigated the temperature comparisons between metal and wooden bird boxes. I concluded from this study there was no significant difference in the temperatures of the two types of boxes so long as adequate ventilation was provided (**Passenger Pigeon** 30:1).

This study brought to light another question concerning nest boxes, the effect of color on the internal temperature of the boxes. This is what I attempted to determine in the present study.

Because metal boxes heat at about the same rate as wooden boxes, No. 10 tin cans were selected for the test boxes in the present study.

Cans have a distinct advantage in a study such as this since it is possible, without difficulty, to eliminate the variables of size, thickness of materials, changes of volume, etc. The cans were used intact, that is, there was no provision made for drain holes in the bottom and no entrance hole was cut in the front of the can as would be the case with a functional bird box.

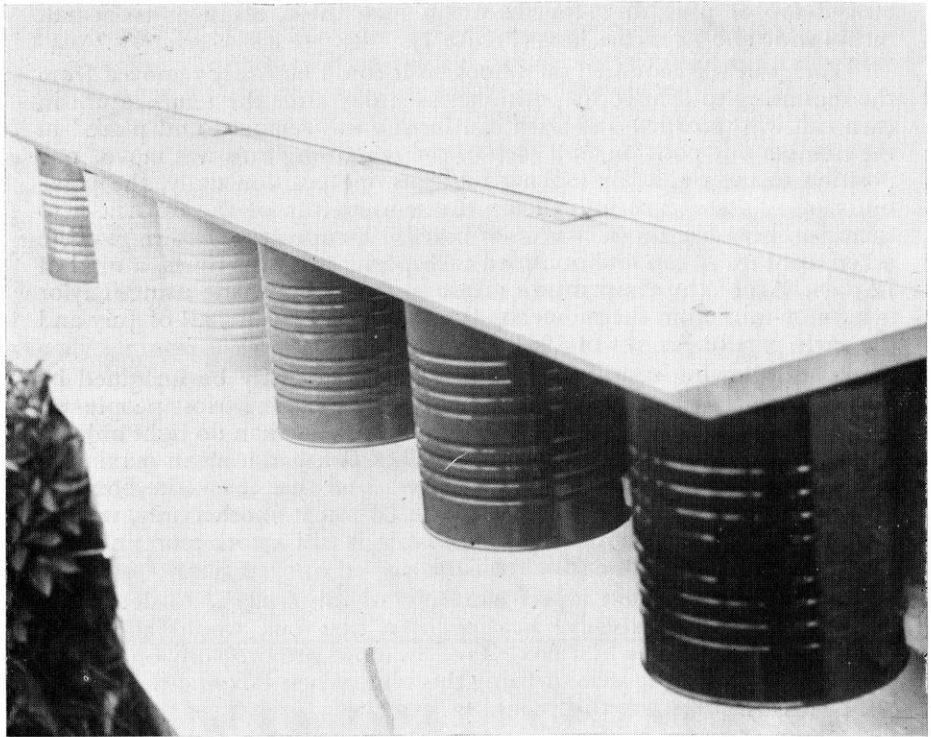


Figure 1. Six boxes painted varying shades of gray from white to black were placed in direct sunlight with Taylor maximum-minimum thermometers inside to record each box temperature.

Table 1. A comparison of the mean maximum temperatures* of six different colored boxes as related to the mean maximum air temperature.

Box Color	Mean Max. Temperature	Diff. from Air Temp.	Per cent Increase
Silver	87.3	11.2	14.7
White	84.0	7.9	10.4
Light Gray	87.4	10.9	14.3
Medium Gray	88.4	12.3	16.2
Dark Gray	89.7	13.6	17.9
Black	90.6	14.5	19.1
Air	76.1	.....	.....

* All temperatures recorded in degrees Fahrenheit

Of the six cans used in the study, one was left with its shiny, reflective surface, while the remaining five cans were painted black, dark gray, medium gray, light gray, and white. Shades of gray from black to white were used since a more complete range of optical density was much easier to control than would be possible using a variety of colors.

Each of the six cans was mounted one can-width apart (approximately six inches) so as to allow a maximum amount of sunlight to strike the cans each day. Since all of the cans faced south, each was subjected to full sunlight during the time when the sun was in a position between 45 degrees on either side of the zenith. All of the cans had a common

hinged top of pine three-fourths of an inch thick, seven and one-half inches wide and 72 inches long (Figure 1).

Each can was mounted on a hook so it could be easily removed from the mounting to change its position. Each day after the temperature in each can was recorded, the sixth can in line was removed and placed in the number one position, and each of the remaining cans was moved one position to the right. By moving the cans one position daily, the possibility of adjacent cans influencing the temperature of the cans next to them, or between them, was eliminated. Temperature readings were taken until every can had occupied each position twelve times, a total of 72 days. All of the temperature measurements were made using Taylor maximum-minimum thermometers through most of June, all of July and the early part of August of 1967.

The following results are simple and could easily be imagined by anyone with a limited and basic knowledge of physics. Most people are aware of the fact that dark objects absorb more heat than do light objects. Therefore, it is not surprising that the black box had a mean maximum temperature greater than any of the others, and that the white box had the lowest mean maximum temperature. To put it another way, we can say black has a higher optical density, that is, it will absorb more infrared rays (heat rays) from the sunlight (Table 1).

The most important aspect of results of this study is to determine how this apparent excessive heating of a nest box would affect the nestlings occupying the nest box. Tree Swallows are probably one of the most common cavity nesters utilizing this type of nest box and this species can be used to illustrate this point.

Rather than being detrimental, the heating of the nest box may, to some degree, be beneficial, particularly on cooler days, especially during the early stages of the development of the nestlings. During these early days of development, the nestling is basically a cold-blooded animal, not able to maintain a constant body temperature. If the brooding female must be away from the nest seeking insects to feed her brood, a slightly higher box temperature would help the nestlings maintain a more desirable body temperature.

Keep in mind that the brooding female can supply no greater temperature than about 107 degrees F., her normal body temperature. Now, consider the greatest temperature increase, illustrated in the black box, exceeded the air temperature more than 19 per cent (Table 1). Using this 19 per cent as a standard maximum increase that might occur, the air temperature must reach almost 90 degrees F. for the box temperature to approach 107 degrees, and this is only the equivalent temperature that the nestling would get from the brooding female.

The mean maximum air temperature recorded during the course of the present study was 76.1 degrees F. There were no days when the maximum air temperature reached 90 degrees, and only four days when it came close, that is, in the high 80's. The numbers of times the temperatures in all of the six boxes exceeded 100 degrees occurred only 68 times in over 430 temperature measurements. All but 11 of these high temperatures occurred after July 19, after the time when a nestling, such as the Tree Swallow, would have left the nest.

What about the 11 hundred-plus-temperature readings that did occur before July 19? They were all reached between July 9 and July 19, during a period of time when, if any of the young were left in the nest, they would be in a fairly well advanced stage of development.

The following example may help to illustrate the probable effect this high temperature might have on nearly fully developed Tree Swallow nestlings.

In 1966, I did a thermoregulation study on Tree Swallow nestlings. During the course of this study I took nearly 1,000 temperature measurements of the developing nestlings. In one brood the box temperature averaged more than 105 degrees F. for the sixteenth, seventeenth and eighteenth days of the nestlings' development. This caused the nestlings' body temperature to soar to 110, 111, and 111 degrees respectively on these three days. And yet, all of the nestlings fledged on the nineteenth and twentieth day of development with a normal body temperature of 107 degrees F.

This is only one example and could be an isolated situation, but it does illustrate that high nest box temperatures are not necessarily detrimental to the occupants of the nest box.

My recommendation, therefore, in light of the evidence revealed in this study would have to be—**paint your bird houses any color that suits you. It won't make any difference to the birds.**

FIND THIS BIRD ONLY IN RACINE



**15 complete
GASOLINE STATIONS**

**W. H. PUGH OIL CO.
Racine, Wisconsin**

Problems and Problem Areas of Pesticide Use

By WALTER E. SCOTT

Asst. to Deputy Secretary
Wis. Dept. of Natural Resources

The following address is printed because of its particular relevance to the current DDT hearings in Madison. The WSO and the PASSENGER PIGEON have long been interested in the problem of pesticides. Its members have been among the forefront of those waging the difficult fight against the indiscriminate use of potentially dangerous chemicals. This address was presented at a joint meeting of the Natural Resources Board and the Board of Agriculture of Wisconsin by Past President and Charter WSO Member Walter Scott at Madison on November 21, 1968.

It is significant that in the history of conservation and agriculture in Wisconsin, this is the first meeting of the complete joint boards governing these closely related activities. It is an historic occasion. The promise of more such sessions is a very hopeful indication of possible future benefits for the people and their general welfare. The mutual problem of persistent pesticides which we face is difficult and very complex. Their effect on our environment and their mobility as part of the air, water, soil and all living things have caused grave concern which has increased over the past decade as research evidence is reported. The time has come for responsible and concerted action.

So far as the Natural Resources Board is concerned, it has inherited numerous statutory responsibilities from the former Conservation Commission, Public Service Commission, and the Boards of Health and Resource Development. These are too numerous to detail at this time, but a general summary is necessary. It includes protective control over all the state's fish and wildlife, over approximately 16 million acres of forest lands (from both forest fires and insect depredation) and over the quality of 1¼ million acres of interior waters plus both ground waters and about 10,000 square miles of the Great Lakes. Besides this, it has direct **management** responsibilities over the fishery and aquatic plants in public waters, over about a million acres of land under state control and several million more involving cooperative programs. Legislative mandates going back more than 40 years require this agency to "conserve the fish and game supply and insure to the citizens . . . continued opportunities for good fishing, hunting and trapping . . ."

Establishment of this agency, as expressed in the Conservation Act of 1927, is "to provide an adequate and flexible system for the protection, development and use of forests, fish and game, lakes, streams, plant life, flowers and other outdoor resources . . ." The Supreme Court of Wisconsin even has expanded on this extensive charge by stating that "The right of the citizens of the state to enjoy our navigable streams for recreational

purposes, including the enjoyment of scenic beauty, is a legal right that is entitled to all the protection which is given financial rights."

In our state the concept of "navigable waters" includes such things as fishing, swimming and wading, and so the preservation of water quality, as well as quality of the fishery and the total water-related environment, is of utmost concern. Responsibilities for establishment of water quality standards cannot be taken lightly as they involve not only these matters of wildlife and other outdoor recreation concerns, but also problems of human health and public water supplies. Although the use of pesticides usually does not create such hazards to man so far as is known now, there is the continual danger of accidents or careless usage as well as possible long-term effects.

Over the years, the Department of Agriculture and Conservation Department have cooperated in many ways on numerous projects. Through committees and working groups of the Natural Resources Council of State Agencies, we have answered most mutual problems effectively during the last 17 years. Also, for about two decades, we have been directly involved in joint control over the use of toxic insecticides used on forest and non-crop lands in cooperation with the state health authorities. In fact, it was this inter-agency committee which several years ago first developed the proposed bills to establish a pesticide control council as well as requirements for pesticide applicator licensing and stronger regulations on packaging and labeling. However, to date, only the latter measure has become law.

It now is more than 20 years since the persistent pesticide known as DDT was introduced to popular usage. It was followed shortly by other persistent compounds—some even more dangerous—which now are no longer recommended for general agriculture use due to possible food contamination. As long ago as 1961 the Governor established a Special Committee on Chemical Health Hazards and in 1963 the President's Science Advisory Committee recommended as a goal the total elimination of persistent toxic pesticides. Many new research findings have come in since then and we have more experience with the manner in which certain of these chemicals persist in the environment for many years and move great distances from where applied. They also build up in the food chain of animals so the best predatory game fish are most vulnerable to these poisons as also are many desirable fish-eating and flesh-eating birds.

While early reports of DDT usage on elm trees to control Dutch Elm Disease indicated mass die-off of small birds such as robins in the sprayed areas, the long-term build-up effect on the peregrine falcon, bald eagle and the osprey through their evident reproductive failure proved much more serious. Then in 1964 research on Lake Trout reproduction in New York State revealed that their eggs would not hatch properly if they contained too much DDT and its residues. That same year the Wisconsin Conservation Department stopped all use of DDT on forest pest control even though the applications had been less than one pound per acre and studies had shown no serious effects on forest birds and mammals. In fact, less than one percent of all commercial forest lands of the state have ever been sprayed with any pesticides and all such applications are subject to recommendations of a Forest Pest Advisory and Steering Committee.

In 1965 the Conservation Department started detailed studies to determine levels of pesticide residues in the fish of our lakes and streams. Chemical tests were run by the laboratories of the Wisconsin Alumni Research Foundation, State Department of Agriculture and with our own gas chromatograph at the Nevin State Fish Hatchery. Early findings of DDT in all fish samples led to the adoption of a "Policy on Pesticide Use" by the Wisconsin Conservation Commission on October 24, 1966. Although this applied primarily to the use of pesticides on land resources entrusted to their care, it also applied on all the state's forest lands and still is in effect. The policy urges use of non-chemical control methods wherever possible and non-persistent chemicals which will do the least possible damage to living things other than the target species. No persistent pesticides may be used without a special permit issued by the Director, and none such ever has been issued.

This now will continue to be the Natural Resources Board's policy until changed, and so the following statement therein about persistent pesticides is important: **"Their use will be discontinued when and where they produce undesirable side effects."** Such detrimental effects have proven of even greater concern since the loss of about one million coho salmon fry at the **"Button-up Stage"** in Michigan and Wisconsin hatcheries this year. At least, Michigan State University researchers say this is the most likely reason for failure of hatching as eggs taken from some Lake Michigan salmon have contained as much as 5 p.p.m. DDT residues. Significantly, it also is reported that coho salmon from this lake, used as mink food, resulted in almost a complete loss of breeding production in the mink. A court case is said to be pending on this matter at present.

The Department of Natural Resources recently has published the results of its three years of research on the "Occurrence and Significance of DDT and Dieldrin Residues in Wisconsin Fish." Samples taken represented 2,673 fish of 35 species from 109 different lakes and streams. DDT residues were found in all fish samples and dieldrin in about 70 percent of them. The recommendations made after these studies urge prohibition of surface water pollution by pesticides, recording of pesticide usage, continuation of pesticide research, increased monitoring of pesticide residues, education of the public on dangers involved, development of alternative insect control methods, licensing of commercial pest control operators and the establishment of a Pesticide Review Board.

Possibly one of the most significant developments in this regard was the recently signed "Joint Statement of Agreement" on protection of the Lake Michigan environment from uncontrolled use of persistent pesticides and similar economic poisons. Conservation leaders of Illinois, Indiana, Michigan and Wisconsin met in Chicago on July 31 of this year and strongly urged that the 22,400 square miles of water in this lake be preserved and bequeathed "in a useful condition, to future generations". They expressed concern that "unless timely steps are taken to control persistent pesticides and other economic poisons, Lake Michigan's usefulness will shrink to a fraction of its potential". Their objectives included pollution prevention, strengthened interstate water quality standards, revision of laws and regulations, cooperation of all interest groups and individuals and general public understanding. They recommended

accelerated action in the fields of inventory, monitoring, enforcement, research, planning and assessment of benefits and damages.

Another encouraging recent development was the report of Governor George Romney's Pesticide Advisory Panel in Michigan. They acknowledged the presence of many of these undesirable side effects of certain persistent pesticides and pointed out that the use of DDT for the control of Dutch Elm Disease in Michigan was replaced in state recommendations this year and they anticipated "that a complete switch to the less persistent methoxychlor schedule will take place in 1969". In fact, at least 55 of Michigan's 56 communities that planned to use DDT for this purpose in 1968 decided not to proceed with those plans. Similarly, the Illinois Natural History Survey Division changed their recommendations on Dutch Elm Disease control for that state this year and they now strongly urge against the use of DDT because of its persistence and long-term detrimental effects on fish and wildlife. Wisconsin, unfortunately, still recommends the use of DDT in fall for this purpose.

Sometimes we hear that our concerns are premature regarding the potential danger from use of persistent pesticides such as DDT and dieldrin. It is contended that presently available facts are not adequate to prove serious losses in fish and other wildlife. However, the Department of Natural Resources cannot wait until an animal is extinct or in a crisis situation before acting. Its responsibility for wise management and preservation of each species for future generations is clearly stated in the statutes. A similar example is present in the grave situation of the leopard and cheetah in Africa. The demand for their fur is so great that poachers and profiteers are continuing an illegal trade, so that the animals may even become extinct. The New York furrier, Georges Kaplan, who refuses to sell such furs at any price, is showing a desirable type of ecological morality.

The State Department of Agriculture deserves commendation for their recent survey of the quantity of pesticides and their use in Wisconsin. So far as persistent pesticides are concerned, it is evident that the greater quantity goes for non-agricultural uses. Of about 50 tons of DDT shipped into Wisconsin this year, about 30 tons was scheduled for control of Dutch Elm Disease. Because of the comparatively heavy application per tree in urban areas with extensive paved streets and walks, this constitutes a serious threat to nearby waterways. Recent run-off tests comparing Maple Bluff with Monona after the same rainstorm showed conclusively that there is a direct connection between such spraying and pesticides in the Madison lakes.

Historical records indicate that back about 1910 the commercial fisherman took from two to three pounds of fish per acre from Lake Michigan and about 80 percent of those were of highly desirable quality. About 10,000 fishermen using thousands of boats harvested this crop from the Great Lakes in a type of farming which yields food very nutritious and desirable. In fact, when Jesus fed the multitude he used only two fish to go along with the five loaves of bread that were available. The plea here is that every possible effort be made to restore the quality and maintain the quantity of fishery production in the Great Lakes.

However, research findings of the U. S. Bureau of Commercial Fisheries indicate that Lake Michigan is more polluted by far with pesticide

residues than any other of the Great Lakes. Also, Professor Alfred M. Beeton, Assistant Director of the UW-Milwaukee Center for Great Lakes Studies, reports that Lake Michigan has a very slow rate of flushing and its trend toward deterioration is evident in the change of fish quality, bottom organisms, oxygen content and algae growth. It is no wonder then that the federal Lake Michigan Enforcement Conference early this year established a Technical Committee on Pesticides to evaluate the problem and make recommendations on monitoring and control regulations. Even the summary report on their first session indicated that "The states shall seek legislation to licensed commercial applicators".

Last year our Department stated clearly in a publication that the "Results of laboratory tests conducted over a period of years leads inescapably to the conclusion that the persistent chlorinated hydrocarbon pesticides (particularly DDT) are progressively accumulating in our environment and in consequence are threatening fish and game interests". This in turn affects the quality of our outdoor recreation resource and the tourist industry which generates a billion dollar annual value for the state. Members of the Citizens Natural Resources Association of Wisconsin and the Wisconsin Division of the Izaak Walton League of America have requested a declaratory ruling from the Department of Natural Resources as to whether DDT should be considered a type of water pollution when used in such manner that it gets into the public waters. They will be assisted by a nationwide Environmental Defense Fund organization when public hearings begin on this subject December 2 in the State Capitol Assembly Chambers. Their petition declares that the "application of DDT will cause serious permanent and irreparable damage" and that this chemical's use be limited to places where such pollution of the environment will not occur. Above all, they ask for use of substitute chemicals or other methods to control the spread of Dutch Elm Disease. Some of these recommendations are essentially similar to those made in the Department of Natural Resources research bulletin on residues of persistent pesticides in Wisconsin fishes.

Governor Romney's Advisory Panel spoke favorably of the four-state policy agreement by conservation officials on persistent pesticide controls and urged a coordinated approach which also would include industrial, political and agricultural aspects as well as improved communications between all of these groups. This we are doing here today—at least in part. Also, we do have some proposals which can be considered for action. At a meeting recently, the Executive Committee of the Natural Resources Council of State Agencies approved the latest draft of a "Pesticide Review Board" bill. This has been endorsed by the three state departments with primary concern in agriculture, health and natural resources and will be up for final consideration by the NRCSA at their January 1969 meeting.

These three departments also are working on a draft of a commercial pesticide operators licensing bill. This has received approval in principle from the NRCSA and the Executive Committee feels it can be sent through for final consideration as soon as agreement between department representatives is secured. The purpose of this desirable legislation is two-fold: (1) to insure that agricultural and other legitimate and necessary application of **approved** pesticides can be made as needed for pro-

duction of food and fiber from the land; and (2) to preserve the delicate ecological balance of our natural environment so as to assure for future generations the quality of mysterious beauty and multitudinous variety in the universe about us.

We are here today in a good cause with a promise of future meetings in the interest of the people's welfare. Nothing should concern them more than **their** fish and wildlife and **their** public waters—except possibly the quantity and quality of their next meal. We need to assure them of both.



Letters to The Editor . . .

December 4, 1968

Dear Dr. Kemper:

As you may or may not know, Jim Zimmerman has appointed me in charge of the Committee in North Central Audubon to do what can be done to outlaw pole-traps and their use on birds of prey in the State of Wisconsin. He has suggested that you might be able to give me some information or assistance in this matter so that, ultimately, same can and will be outlawed not only in Wisconsin, but throughout the Midwest.

I am now in the process of attempting to gain information and statistics from the Department of Natural Resources—Conservation Division and am not having exceptional success in securing such information. However, be that as it may, we will proceed with such information we can secure.

It seems to me that the first thing to be done is to conduct a survey by interested people to determine, actually, the effect of this program, which is apparently raising havoc with our birds of prey. I am in the process of preparing a questionnaire that I will ask personnel to use in surveying the various game farms, etc. where pole-traps are being used. Thereafter, it would appear to me to petition the Department of Natural Resources for a hearing and issuance of an order under WCD for the complete outlawing of pole-trapping.

Your comments would be greatly appreciated.

Very truly yours,
Robert W. Lutz

EDITOR'S NOTE: Readers' comments will be in order.

* * *

Plainfield, Wis. 54966
November 18, 1968

Dear Charles,

Just got around to reading my Summer '68 PIGEON. Especially enjoyed Shapiro's article, and Tryggeseth's entertaining letter. Have a correction for page 94 SHARP-SHINNED HAWK. The nest in question was near the Hamerstrom's house in **Waushara County**. (The female still retained some of the immature plumage. She and the three young were banded on July 14.)

From Hammy, Chrys, Grendel, Zulieka,
Ambrose, Holowee, No-name, Fran

Dear Dr. Kemper:

The following is a complete quotation of a letter received from Alexander Wetmore of the Smithsonian Institution concerning the goose that appeared on the cover of the Passenger Pigeon.

SMITHSONIAN INSTITUTION
WASHINGTON, D.C. 20560
January 15, 1968

Mr. Rockne Knuth
Fond du Lac, Wisconsin

Dear Mr. Knuth:

The illustration of your goose on the cover of the fall number of the Passenger Pigeon has brought back to my mind the painting shown to me by the Rev. Sam Robbins at the A.O.U. meeting in Duluth. With the illustration in hand, I have gone to our collections, with the result that I agree with the original opinion of Roger Tory Peterson that it was a Blue Goose "in a peculiar transitory phase of development". I find among our series an immature bird that closely carries a similar pattern except that the darker coloration on the top of the head and the back of the upper hind neck is not as heavily defined, the dark pigment being found along the centers of the feathers only. This, however, seen at a distance would give the same appearance that you give in your picture. The darker back, breast, and sides, with the white abdomen, agree with our specimen.

Sincerely Yours,
A. Wetmore
Research Associate
Yours Truly,
Rockne Knuth

* * *

Route 1, Box 98
Birnamwood, Wisconsin
December 3, 1968

Charles A. Kemper, M.D.
Box 2, Chippewa Falls,
Wisconsin 54729

Dear Dr. Kemper:

This letter is in regard to the error that was made in my story, "Larkie", in the Summer 1968 Passenger Pigeon.

Would you kindly put a correction notice in the next issue of the magazine to correct the word "persuasive" to read "sensitive" as was in my manuscript.

Thank you, and best wishes for a Merry Christmas.

Sincerely,
(Miss) Mary Staeger

EDITOR'S NOTE: In Vol. 30, No. 2 at top of page 89, the sentence should read: "He would hop up . . . rush at Duna, giving her a peck on her *sensitive* nose."

Mrs. Staeger, I'm sorry about this error. You have given a proper peck to the end of *my* sensitive nose.

December 23, 1968

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

I am enclosing an account of what I believe to be selective predation as witnessed by my son, Mark Anderson. Although this occurred last April, his notes were recorded at that time. The ms is in his own words with some advice from me relative to procedure, e.g. the scientific naming, location, and weather; I also did the typing for him.

We think this is of sufficient interest to be included in the Passenger Pigeon.

Sincerely,
Raymond K. Anderson

Selective predation?

On April 30, 1968 at 5:43 P. M., I shot a male Cowbird (*Molothrus ater*) with a .22 rifle. This happened in Section 23, T. 24 N.—R. 10 E., Portage County, Wisconsin. Weather: 66 degrees F., partly cloudy, wind—4 to 7 miles per hour. There was a mixed flock of about 30 Red-winged Blackbirds (*Agelaius phoeniceus*) and Cowbirds present on perches and feeding on the ground at the time. They flew away when I shot. A Kestrel (*Falco sparverius*) must have been present too, but I did not see him. The Cowbird was not hurt badly and so I let him go. As he half ran and hopped toward a thicket, a male Kestrel flew in no more than 3 yards from my right shoulder. It landed on the Cowbird 6 yards in front of me. I stood there watching for about ½ minute and then moved forward. The Kestrel took off with the Cowbird in its talons and flew out of sight into a woods about 100 yards away. I thought that it was unusual that the Kestrel took the Cowbird so close to me, and that it had not tried to take one of the flock before I shot.

Mark W. Anderson (12 years old)

Rt. 1, Box 72 Amherst Jct., Wisconsin 54407

* * *

State of Wisconsin
Department of Natural Resources
Division of Conservation
Poynette, Wisconsin 53955

November 8, 1968

Dear Editor,

I am submitting the enclosed manuscript for your review and possible publication in the forthcoming issue of the Passenger Pigeon. The unusual longevity of the sandhill crane described should, it seems, be published and recorded rather than lost with those few of us who now possess the information.

I believe the Passenger Pigeon to be the best vehicle for this documentation.

Very truly yours,
BUREAU OF INFORMATION
& EDUCATION
John V. Semo, Ass't. Manager
Conservation Education Center

SANDY'S GONE

By JOHN SEMO

Rarely are eulogies written for animals. This is an exception. On April 11, 1968, Sandy died.

Sandy was a Sandhill Crane who during his lifetime was viewed by several million visitors to the State Game Farm and Conservation Education Center at Poynette and at numerous fairs and sport shows throughout Wisconsin. The details in the life of this well-known bird have all but been lost in obsolete and discarded records. His unusual longevity is revealed by the recollections of retired Game Manager Tony Rinzel of Poynette.

It is not known where the bird originated, but in 1934, Sandy was given to the then Conservation Department's Moon Lake Game Farm in Fond du Lac County by a now unknown member of the Isaac Walton League. Mr. Rinzel estimates the crane's birthdate at about 1932. In 1935, the Department's game propagation activities were consolidated



at the newly acquired Poynette site. It was then that Sandy was brought to what was to be his home for some 33 years.

Sandy was not alone for all of his long internment for a female was also donated to the Moon Lake Farm in 1934. His mate stayed with him until her death in 1945. Even then he was not completely out of touch with those of his species. Often Sandy could be heard calling to cranes as they passed in their annual migrations. On at least one occasion, he induced his wild brethren to land within a short distance of his pen.

When Sandy came to Poynette, sandhills were a vanishing species. A State Game Farm booklet printed in 1935 states that cranes were "now not far from extinction" but added that they were being rigidly protected. An indication of their rarity is the booklet's statement, "Though now rare east of the Mississippi, there were ten nests of this bird found in Wisconsin in 1932."

While displayed at the Game Farm and more recently at the Conservation Education Center, visitors have had an opportunity to view this seldom exhibited but interesting member of our native fauna. Through the years, Sandy served as a valuable teaching tool for naturalists. The story of man's frequent disregard for the welfare of his fellow creatures has been told to many hundreds of thousands of youngsters with the account of the near destruction of the sandhill crane at the hands of feather merchants and market hunters.

The life span of the sandhill is not well documented in easily available literature, but Sandy's 35 or more years must surely be placed among the longevity records. Sandy had a long life, an easy life, and we hope, a comfortable life. His raucous call like the rusty hinges on the door of a haunted house will be heard no more. His awkward, comical mating dance will be seen no more. Sandy is gone, but the legacy of understanding and appreciation for wildlife he has helped instill in so many of Wisconsin's youths lives on.



FROM OUR EXCHANGE JOURNALS

An article appears in the *Auk*, Oct. 1968, Vol. 85, No. 4, pp. 560-586, by John Snelling on the overlap in feeding habits of Redwinged Blackbirds and Common Grackles nesting in a cattail marsh (East Wingra marsh) in Madison. This marsh is familiar to Wisconsin birders who have frequented the University Arboretum. The study points up some interesting data. First, Grackles nest mainly in May, while Redwings nest mainly in June and on into July and August. Food from nestlings was sampled by the interesting technique of using a pipe cleaner to prevent swallowing. Insects predominated in the diet of both species. Vegetable matter occurred in only 7.9 per cent of the samples of Redwings while two-thirds of the Grackles' samples contained vegetable matter (believe it or not, this was mostly white bread). Competition for food probably did not exist between these species because of the great diversity of food both species take and also because of differences in foraging locations. Apparently the Grackles did much more foraging away from the marsh. It was suggested that both species do compete actively for space.



FIELD NOTES

By WILLIAM L. HILSENHOFF

December 1, 1967 - February 29, 1968

The most significant feature of the weather during the winter of 1967-68 was the lack of snow. There were no major snowfalls, and the ground was bare most of the time. Only the extreme north had snow, and even there, amounts were scanty. This lack of snow, probably more than any other factor, was responsible for the apparent lack of wintering birds. Birds did not frequent feeders, nor were they forced to roadsides, because the bare ground provided an abundance of natural food. Most species were well scattered over the landscape, and were difficult to find.

The first three weeks of December saw temperatures that were well above normal. Many lakes remained free of ice, and large numbers of waterfowl lingered, with Canada Geese remaining unusually abundant in the Fox Lake and Horicon areas. Some very unusual bird sightings were also recorded during this period. In Racine County a European Widgeon was seen on December 3, this being the first fall or winter record of this species in Wisconsin. Also in Racine County a Northern Phalarope was present December 3-5, and a Harlequin Duck remained through December 17. In Wood County a Sora was found December 5, a record late departure date for that species. A Glaucous Gull was sighted in LaCrosse County December 13, an unusual inland record.

An Arctic cold front passed across the state on December 22, dropping temperatures below normal and freezing the lakes. On the last day of the month temperatures were below zero throughout the state, and the very cold weather continued through the first 10 days of January. The Christmas Counts (December 20-January 2) suffered because of the cold and the wind, but the previously mild weather did induce several half-hardy species to remain into the Christmas Count period. Rarities that were found during the Christmas Count period, but not thereafter, included a Blue-winged Teal at Madison, a Surf Scoter at Racine, Killdeer at Milwaukee and Milton, a Glaucous Gull at Superior, Bonaparte's Gulls at Kenosha, Yellow-bellied Sapsuckers at Madison, Manitowoc, and Ojibwa, Winter Wrens at Cornelia and Hudson, a Long-billed Marsh Wren in Winnebago County, a Mockingbird in Oconto County, a Ruby-crowned Kinglet in Waukesha, Myrtle Warblers in Racine, Kenosha, Waukesha, and Green Bay, Chipping Sparrows in Appleton, and a White-crowned Sparrow at Cornelia.

The last 20 days of January were mild, and February was sunny with normal temperatures throughout the month. Species that had not departed by mid-January generally survived the winter with no difficulty. The Christmas Counts and subsequent reports indicated that several species were abnormally common throughout the winter. These included the Rough-legged Hawk (southern half of the state), Bald Eagle, Snowy Owl, Brown Creeper, blackbirds, American Goldfinch, juncos, Lapland Longspurs, and Snow Buntings. Other species were conspicuously uncommon or absent. These included Red-shouldered Hawks, Ring-billed Gulls, Red-headed Woodpeckers, Bohemian Waxwings (none reported all winter), meadowlarks and Gray Partridges (probably because the lack of snow made them hard to find), Common Redpolls, and Pine Grosbeaks.

There were several unusual mid- and late-winter records. On January 13 Horned Grebes were sighted in Dane County and Milwaukee County; an American Bittern was found in Waukesha County January 21; Golden Eagles were seen during February in Juneau, Buffalo, and Racine Counties; a Sandhill Crane was sighted in Jefferson County January 26; a Great Gray Owl was found at Iron River, Bayfield County February 26-29; and a Varied Thrush remained in Sawyer County through January 16. A Pied-billed Grebe wintered in Price County for the second consecutive winter, and another wintered in Winnebago County. Hermit Thrushes were found on a record number of Christmas Counts (4), the one at Milwaukee wintering.

The abundance or absence of winter finches is always interesting. For the second consecutive winter the American Goldfinch wintered commonly throughout the state, and Common Redpolls and Pine Grosbeaks were virtually absent. The lack of snow that exposed an abundant supply of weed seeds undoubtedly contributed to the large wintering goldfinch population. Purple Finches and Pine Siskins showed little southward movement. Both species were unusually scarce in the southern half of the state, but in some areas of the north they were very common all winter. Evening Grosbeaks also moved into the northern part of the state, with just a few scattered records from the southern half of the state. Crossbills were found primarily in the north, with Red Crossbills being very common in some northeastern counties.

There was definite evidence of late winter migration by several species. Horned Larks appeared to begin moving north in late January, but the presence of wintering individuals throughout much of the state obscured the pattern of their normal February migration. Marsh Hawks, present on several Christmas Counts, had mostly departed by early January although a few birds wintered. An influx of reports beginning February 17, some from northern counties, indicated a significant late February migration by this species. Canada Geese also began moving back into the state late in February, when flocks were sighted away from normal wintering areas. The Ned Hillister Bird Club provided evidence of a significant late-February migration of Song Sparrows in Rock County. Where only 5 were found on the Christmas Count, 76 were sighted February 25 in a recount of the same area.

The winter of 1967-68 was considered "dull" by many observers, but

those who tramped the woods, fields, and marshes found this warm, snowless winter enjoyable and often quite rewarding.

The Season Summary

Common Loon: Last reported from Sauk Co. Dec. 13. (Kenneth Lange).

Horned Grebe: Two exceptionally late departure dates. Dane Co. Jan. 13 (William L. Hilsenhoff) and Milwaukee Co. Jan. 13 (Daryl Tessen).

Pied-billed Grebe: Two reports of wintering birds, one in Price Co. (Alice Vincent) and one in Winnebago Co. (Tessen).

Great Blue Heron: Although not reported on any Christmas Counts, this species apparently wintered in Juneau Co. Five were seen in Juneau Co. Feb. 17 (Dennis K. Gustafson), and the species was also reported from that county Feb. 4 (W.S.O. Field Trip).

American Bittern: An exceptional record was the bird sighted in Waukesha Co. on Jan. 21 (David A. Bratley).

Canada Goose: Present in many areas through the Christmas Count period, with small flocks reported wintering in Brown, Ozaukee, Waukesha, and Racine Counties. There was some evidence of movement back into the state during the last few days of February.

Blue Goose: Last reported from Racine Co. Jan. 4 (Louise Erickson).

Blue x Snow Hybrid: One wintered in Racine Co. (Gustafson).

Mallard: Wintered throughout the state where there was open water.

Black Duck: Wintered throughout the southern two-thirds of the state, the northernmost reports of wintering birds coming from Pierce, Juneau, and Brown Counties.

Mallard x Pintail Hybrid: Wintered in three counties. Dane (Chauncy Wood), Milwaukee (Gustafson) and Racine (3 birds) (Erickson).

Gadwall: Seventeen wintered in Dane Co. (Hilsenhoff), and one was reported from Waukesha Co. Jan. 21 (Bratley).

American Pintail: Wintered in Winnebago (Tessen) and Milwaukee (Mary Donald) Counties. Another late winter report came from Racine Co. (Tessen).

Green-winged Teal: Although not found on any Christmas Counts, this species was sighted in Dane Co. Jan. 13 (Wood) and Racine Co. Feb. 4 (Ed Prins).

Blue-winged Teal: Found only on the Madison Christmas Count.

American Widgeon: Wintered in Racine Co. (Erickson) and Milwaukee Co. (Donald). There were late winter reports from Jefferson Co. Jan. 20 (Richard Sharp), Dane Co. Jan. 20 (Hilsenhoff), and Waukesha Co. Jan. 31 (H. Bielefelt) and Feb. 24 (Bratley).

European Widgeon: There was a well documented report of one in Racine Co. Dec. 3 (Erickson). This is the first record for this species during the Fall or Winter seasons. See "By the Wayside".

Shoveler: Wintered in Dane Co. (Hilsenhoff). There were also late winter reports from Jefferson Co. Jan. 13 (Sharp), and Waukesha Co. Jan. 6-Feb. 4 (Bratley-Bielefelt, and Gustafson).

Wood Duck: Wintered in Racine Co. (Erickson). This species was also seen Jan. 21 in Dane Co. (Wood) and LaCrosse Co. (Jerome R. Rosso and Fred Leshner).

Redhead: At least 15 wintered in Milwaukee Co. (Donald). Found also in Ozaukee Co. Jan. 13, Racine Co. Jan. 14, and Winnebago Co. Feb. 12 (Tessen), and in Dane Co. Jan. 21 (Wood).

Ring-necked Duck: The only report after the Christmas Counts was from Winnebago Co. Dec. 24-Jan. 30 (Tessen).

Canvasback: Fifty or more wintered in Milwaukee Co. (Donald). The only other late winter report was from Ozaukee Co. Jan. 13 (Tessen).

Greater Scaup: After the Christmas Counts, reported only in Milwaukee Co. Jan. 7 (Rockne Knuth).

Lesser Scaup: Found wintering only in Winnebago Co. (Tessen).

Common Goldeneye: Wintered commonly throughout the state.

Bufflehead: Wintered in Douglas Co. (R. F. Bernard and Marvin Granlund). The only other late winter report was from Kenosha Co. Feb. 29 (James Hamers).

Oldsquaw: The only report after the Christmas Counts was of wintering birds in Kenosha Co. (Hamers).

Harlequin Duck: One report. A bird remained through Dec. 17 in Racine Co. (Erickson).

White-winged Scoter: Found on the Milwaukee and Manitowoc Christmas Counts. Others were seen in Ozaukee Co. Dec. 16 (Gustafson), Waukesha Co. Dec. 20 (Bielefeldt), Douglas Co. Feb. 3 (Mark Baillie), and Racine Co. Feb. 25 (Wood) (40-50 birds).

Surf Scoter: One observed on the Racine Christmas Count. (See "By the Wayside").

Ruddy Duck: Wintered in Ozaukee Co. (Gustafson) and seen in Kenosha Co. Jan. 14 (Tessen).

Hooded Merganser: Reported wintering only in Milwaukee Co. (Donald). Found in Juneau Co. Feb. 4 (W.S.O. Field Trip).

Common Merganser: Wintered in Outagamie and Winnebago Counties (Tessen). Other late winter reports came from Juneau, LaCrosse and Dane Counties.

Red-Breasted Merganser: After the Christmas Counts this species was found only in Kenosha Co. Feb. 15 (Hammers).

Goshawk: Seen on only two Christmas Counts. Present in Brown Co. Jan. 30-Feb. 1 (Ed Paulson), in Manitowoc Co. Jan. 14 (John Kraupa), and in Racine Co. Jan. 8 and Feb. 28 (Gil Stieg).

Sharp-shinned Hawk: Wintered in Waushara Co. (Irma Chipman) and Waukesha Co. (Bielefeldt and Emma Hoffman).

Cooper's Hawk: Wintered in Waushara Co. (Chipman) and Racine Co. (Stieg). The only other reports after the Christmas Count period were from Dane Co. Jan. 13 (Wood) and Waukesha Co. Feb. 19 (Hoffman).

Red-tailed Hawk: Wintered in the southern half of the state.

Red-shouldered Hawk: Reported wintering only in Sauk Co. (Wood), but there were January and February reports from LaCrosse Co. Jan. 21 (Rosso and Leshner), Ozaukee Co. Jan. 20 (Gustafson), Milwaukee Co. Jan. 10-12 (Elmer Strehlow) and Jefferson Co. Feb. 25 (Sharp).

Rough-legged Hawk: Numerous throughout the winter in the southern half of the state, wintering as far north as Brown Co. (Paulson and Ed Cleary). In Winnebago Co. they were reported as being "the most abundant in years" (Tessen).

Golden Eagle: An unusual number of reports after the one reported on the Alma Christmas Count. Seen in Wood Co. Dec. 22 (Don Follen), Juneau Co. Feb. 4 (W.S.O. Field Trip) and Feb. 24 (Gustafson), Buffalo Co. Feb. 10 being chased by a Red-tailed Hawk (William Drazkowski), and Racine Co. Feb. 4 (found dead) (Stieg).

Bald Eagle: Wintered throughout the state. More numerous than usual in the north because of the mild winter.

Marsh Hawk: Reports after the Christmas Count period indicate a migration during the last two weeks in February. The only January reports were from Outagamie Co. (Tessen) and Waukesha Co. where a bird wintered (Bratley and Gustafson). There was one in Washington Co. Feb. 4, followed by sightings in Jefferson Co. Feb. 17, Marinette Co. Feb. 19, Lincoln Co. Feb. 20, Juneau Co. Feb. 24, St. Croix Co. Feb. 25, and LaCrosse Co. Feb. 27.

Sparrow Hawk: Wintered from Brown Co. south, with reports from most counties in the southern half of the state.

Ruffed Grouse: Reports from throughout the state.

Prairie Chicken: The only report was from Portage Co. Jan. 24 (Leshner).

Sharp-tailed Grouse: After the Christmas Counts, seen only in Douglas Co. Feb. 17-18 (Marvin Granlund).

Bobwhite: Seen only in St. Croix, Waushara, LaCrosse, Portage, Rock, and Milwaukee Counties.

Ring-necked Pheasant: Found in agricultural areas throughout the state.

Gray Partridge: Found only in the eastern half of the state from Brown Co. south.

Turkey: One report, from Juneau Co. Feb. 24 (Gustafson).

Sandhill Crane: One in Jefferson Co. Jan. 26 (Keith Kreger) is only the second January record for this species, one having been found previously on Jan. 8, 1941. This bird was observed on the east end of Lake Koshkonong.

Sora: One was found dead in Wood Co. Dec. 5 (Follen), a record late departure date for this species. See "By the Wayside".

American Coot: Fifty or more wintered in Dane Co. (Hilsenhoff). This species remained through January in Ozaukee Co. (Gustafson).

Killdeer: Observed only on the Milwaukee and Milton Christmas Counts.

Common Snipe: Wintered in Waukesha Co. (Mary Nelson) and seen Jan. 27 in LaCrosse Co. (Leshner).

Northern Phalarope: One in Racine Co. Dec. 3 (Erickson) through Dec. 5 (Karl Priebe).

Glaucous Gull: Seen in LaCrosse Co. Dec. 13 (Rosso) and in Douglas Co. Dec. 12-29 (Bernard and Granlund).

Herring Gull: Wintered along Lake Michigan and in Outagamie, Winnebago and Waukesha Counties.

Ring-billed Gull: Reported wintering only in Waukesha Co. (Bratley).

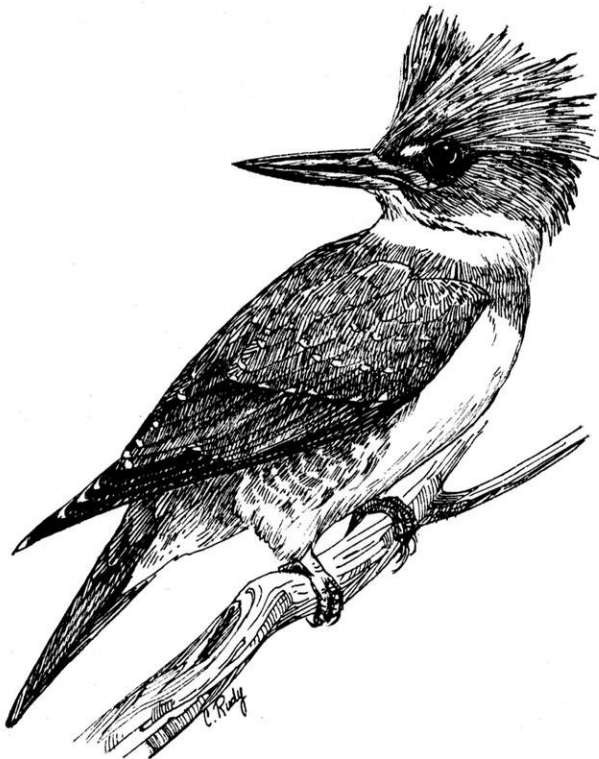
Bonaparte's Gull: Remained in Kenosha Co. until Dec. 28 (Hamers).

Mourning Dove: Numerous wintering flocks in the southern half of the state. Wintered in St. Croix Co. (Sam Robbins) and seen in Price Co. Jan. 17-19 (Maybelle Hardy). The "largest winter population ever" was reported in Brown Co. (Paulson and Cleary).

Screech Owl: Reported from several counties in the southern half of the state, the report from Brown Co. (Paulson and Cleary) being the farthest south.

Great Horned Owl: Found throughout the state.

Snowy Owl: Appeared in numbers throughout the state, being most common in



KINGFISHER

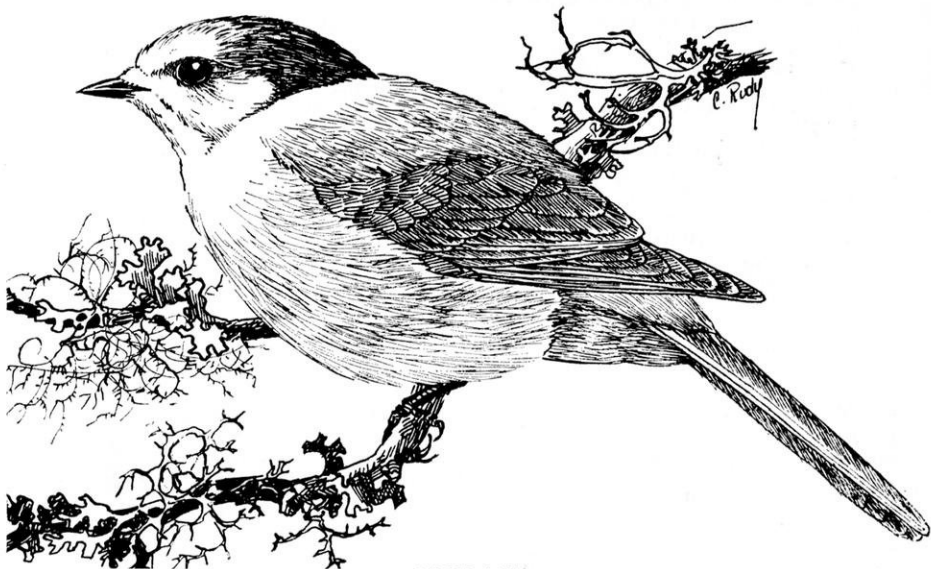
the vicinity of the Great Lakes. Reports from at least 20 counties.

Barred Owl: Found throughout the state, but apparently less numerous than the Great Horned Owl.

Great Gray Owl: After not having been found for more than 60 years, the one seen in Iron River, Bayfield Co. Feb. 26-29 (Bernard Klugow) was the third sighting in three years.

Long-eared Owl: Wintered in Racine Co. (Erickson and Gustafson). Also seen after the Christmas Counts in LaCrosse Co. Jan. 3 (Rosso), Milwaukee Co. Jan. 19 (Gustafson), St. Croix Co. Feb. 22 (Robbins), and Rock Co. Feb. 25 (Beloit February Reaccount).

Short-eared Owl: Found on three Christmas Counts and in Milwaukee Co. Dec. 3 (Gustafson), in Rock Co. Jan. 5 (Mrs. John Brakefield), in Dodge Co. Feb. 15 (Hilsenhoff) and in Douglas Co. Feb. 7-21 (Granlund).



GRAY JAY

Saw-whet Owl: Seen only in Sheboygan Co. Feb. 22 (Marjorie Albrecht) and LaCrosse Co. Feb. 24 (Rosso).

Belted Kingfisher: Wintering birds were found in St. Croix Co. (Robbins), Outagamie Co. (Tessen), LaCrosse Co. (Rosso), and Waukesha Co. (Bielefeld). Late winter reports came from Vernon Co. (Viratine Weber), Juneau Co. (W.S.O. Field Trip), and Sauk Co. (Louise Erickson).

Yellow-shafted Flicker: At least 10 wintered in Outagamie Co. (Tessen). Wintering birds were also found in LaCrosse Co. (Rosso) and Milwaukee Co. (Donald). There were late winter reports from Ozaukee Co. Jan. 20 (Gustafson) and Sauk Co. Feb. 9 (Erickson).

Pileated Woodpecker: Reported from Dane County, and counties to the north and west of Dane.

Red-bellied Woodpecker: Most common in the southern and western counties, with reports as far north as Marinette Co. (H. Lindberg), Shawano Co. (Rockne Knuth), and St. Croix Co. (Robbins).

Red-headed Woodpecker: Wintered north to Brown Co. where one was sighted Jan. 30 (Paulson and Cleary).

Yellow-bellied Sapsucker: The only report after the Christmas Count period was from Dane Co. Jan. 4-11 (Tom and Nancy Ashman).

Black-backed Three-toed Woodpecker: Wintered in Douglas Co. (Granlund).

Horned Lark: Wintering birds reported from most of the counties in the southern half of the state, with some northward movement by the end of January.

Gray Jay: Reported from Price, Forest, Florence, Iron, Oneida, and Sawyer Counties.

Common Raven: Reported from Douglas, Price, Forest, Florence, Bayfield, Iron, Sawyer, Oneida, Lincoln, Langlade, and Jackson Counties.

Common Crow: Wintered throughout the state, but much less common in the northern counties.

Boreal Chickadee: Reported only from Price, Iron, Oneida, and Forest Counties.

Tufted Titmouse: Most common in the southwest third of the state, with the Christmas Counts giving the best picture of their distribution.

Red-breasted Nuthatch: Rare in the southern counties this winter, with wintering individuals reported only as far south as Brown, Outagamie, and Waushara Counties.

Brown Creeper: This species wintered throughout the state, and was unusually common in the southern half.

Winter Wren: Seen on the Cornelia and Hudson Christmas Counts.

Long-billed Marsh Wren: One remained in Winnebago Co. until Dec. 24 (Tessen).

Mockingbird: One was seen in Oconto Co. Jan. 3.

Brown Thrasher: The only wintering bird was reported from Waukesha Co. (Emma Hoffman).

Robin: Numerous reports of wintering birds in the southern half of the state, with one wintering as far north as Price Co. (Alice Vincent).

Varied Thrush: One remained through Jan. 16 in Sawyer Co. (Mr. & Mrs. Roy Perkins).

Hermit Thrush: Found on four Christmas Counts. Wintered in Milwaukee Co. (Donald) and present through Feb. 2 in Outagamie Co. (A. S. Bradford).

Golden-crowned Kinglet: This species was found throughout the state on Christmas Counts, but then seems to have migrated south. They were reported wintering in Waukesha Co. (Bielefelt). There were only two other late winter reports: Fond du Lac Co. Jan. 21 (Knuth) and Juneau Co. Feb. 4 (W.S.O. Field Trip).

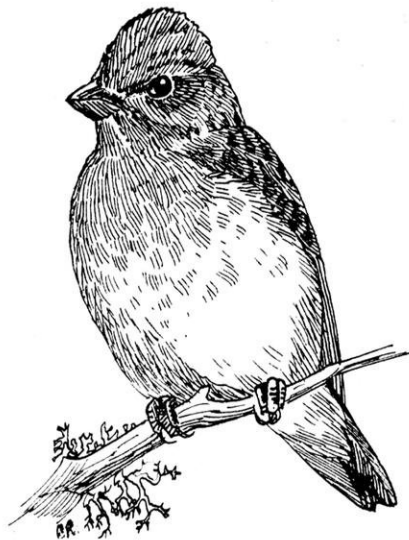
Ruby-crowned Kinglet: Found only on the Waukesha Christmas Count.

Cedar Waxwing: Wintered north to LaCrosse (Rosso) and Brown (Paulson and Cleary) Counties. Flocks were small and scattered.

Northern Shrike: Reported from about 20 counties throughout the state.

Myrtle Warbler: Remained in Brown Co. until Dec. 23 (Cleary), in Waukesha Co. until Dec. 26 (Bielefelt), and in Racine Co. until Dec. 30 (Greg Baker).

Meadowlark spp.: Reported wintering in Outagamie, Dane, Sheboygan, and Brown Counties, with some indication of a migration during the last week in February. Singing Western Meadowlarks were reported in Dane Co. Feb. 4 (Wood) and Feb. 11 (Tom Ashman) and in Trempealeau Co. Feb. 27 (Rosso). Both Eastern and Western Meadowlarks were heard in Rock Co. Feb. 25 (Beloit February Recount).



PURPLE FINCH

Red-winged Blackbird: Wintered in Brown Co. (Paulson and Cleary), Outagamie Co. (Tessen) and Waukesha Co. (Bielefelt).

Rusty Blackbird: Wintered in LaCrosse Co. (Rosso), Waushara Co. (Chipman), and Waukesha Co. (Bielefelt).

Brewer's Blackbird: Remained in Brown Co. until Jan. 18 (Paulson and Cleary).

Common Grackle: Wintered as far north as Price Co. (Vincent). Also wintered in Outagamie, Winnebago, Waukesha, Milwaukee, Kenosha, and Rock Counties.

Brown-headed Cowbird: Found on 8 Christmas Counts, but wintered only in LaCrosse Co. (Rosso) and Waukesha Co. (Bielefelt). Reports from Rock Co. Jan. 16 (Mrs. Brakefield) and Feb. 25 (Beloit February Recount) indicate that this species wintered in that county also.

Cardinal: Wintering birds found as far north as Douglas Co. (Bernard Granlund) and Marinette Co. (H. Lindberg).

Evening Grosbeak: Several reported spending the winter in the northern half of the state, but numbers were down. The only reports from the southern counties were from Kenosha Co. where 2 birds wintered (Mrs. Bach), from Waukesha Co. where 1 bird was present from Jan. 30-Feb. 2 (Hoffman), and from Sauk Co. Feb. 18 (Kenneth Lange).

Purple Finch: Although reported wintering throughout the state, numbers in the southern half of the state were way below normal. Many observers commented on the scarcity or absence of this species in their area. Numbers in the north were normal or above normal, indicating little southward movement of this species. However, there were several reports of an influx of this species during the last two weeks of February. "Tremendous flocks" were reported present in Price Co. during the first few days in March (Tom Nicholls).

Pine Grosbeak: Seen on only 4 Christmas Counts, and after December only in Douglas Co. (John Degerman).

Common Redpoll: Seen on only 3 Christmas Counts, and after December only in Milwaukee Co. Feb. 23 (Elmer Strehlow) and Brown Co. from Feb. 6 to the end of the period (Paulson and Cleary).

Pine Siskin: Another species that showed little southward movement this winter. Wintering reports came only from the northernmost counties, where they were especially common in some areas of the northeast, and from Milwaukee Co. (Donald).

American Goldfinch: Large flocks were reported throughout the state during the entire period.

Red Crossbill: A good invasion of this species into the northern counties, especially the northeastern counties. Found as far south as Marathon Co. after Jan. 20 (Joan Williams) and Waushara Co. Feb. 9 (Chipman).

White-winged Crossbill: Found in four counties during the Christmas Count period, but reported wintering only in Price Co. (Vincent).

Rufous-sided Towhee: Wintered only in Milwaukee Co. (Donald).

Slate-colored Junco: Wintered commonly in the southern half of the state, and reported wintering in the north in Douglas Co. (Bernard and Granlund), Price Co. (Hardy), St. Croix Co. (Robbins), and Pierce Co. (Robbins).

Oregon Junco: Wintering birds reported from Brown Co. (Paulson and Cleary), Outagamie Co. (Tessen), Waukesha Co. (Gustafson) and Kenosha Co. (Hamers).

Tree Sparrow: Common in the southern counties. Wintered north to Pierce Co. (Robbins), Marathon Co. (Williams), and Brown Co. (Paulson and Cleary).

Chipping Sparrow: Two birds reported on the Appleton Christmas Count constitute a new winter record for this species.

Field Sparrow: Remained in Milwaukee Co. until Jan. 18 (Mrs. Brakefield).

White-crowned Sparrow: Seen only on the Cornelia Christmas Count.

White-throated Sparrow: Ten wintered in Racine Co. (Stieg). Also wintered in Milwaukee Co. (Donald) and Outagamie Co. (Tessen).

Fox Sparrow: Wintered in Waukesha Co. (Hoffman), and remained through mid-January in Winnebago Co. (Tessen).

Swamp Sparrow: Wintered in Winnebago Co. (Tessen), Ozaukee Co. (Gustafson), and probably in Rock Co. (Beloit February Recount).

Song Sparrow: Reported wintering in Outagamie, Fond du Lac, Waukesha, Ozaukee, Milwaukee, and Rock Counties. The 76 birds in Rock Co. Feb. 25 (Beloit Recount) indicated a migration had occurred. Only 5 were found on the Christmas Count when the same area was censused.

Lapland Longspur: An unusually large number of reports throughout the entire winter, and these reports came from all over the state. Wintering birds were found as far north as St. Croix Co. (Robbins) and Price Co. (Vincent) and were common in the southern counties.

Snow Bunting: Wintering flocks were found throughout the entire state, but were most numerous in the north.

The attention of all students of birds is invited to forthcoming awards from the Josselyn Van Tyne Memorial Fund in support of research projects. See *The Auk*, January 1969, on how to apply, or write Dr. Paul H. Baldwin, Zoology Department, Colorado State University, Fort Collins, Colorado 80521.

By the Wayside...

Female European Widgeon at Racine—"December 3. Seen at Wind Point near pier, swimming in shallow waves as close as 100 feet, then to point and back to pier; watched 25 minutes. Head all dark reddish brown (not female Goldeneye), widgeon shape, holds wings high in swimming often, in flight large light patch across fore part of wing; head all even brown, does not show lighter cheeks nor any grey; heavy white line under wing; flanks reddish, back greyish. (The illustrations in Forbush & May of winter nuptial plumage shows what was observed on color plate 13). The chief distinction is the head which was all uniformly reddish brown, blending with brown on the front."—Louise Erickson

Surf Scoter at Racine—"At about 9 a. m. December 30 during the Racine Christmas Count we observed a dark duck in company with a flock of female Buffleheads at a distance of about 75 yards. The bird was swimming out in Lake Michigan and it appeared much like the Buffleheads at first, except for its sloping scoter profile and large size. A second white spot on the head was later observed. The bird flew with the Buffleheads as we approached. The wings were no longer than the Buffleheads', and they showed no white on the speculum. The scoter was heavier appearing in flight and a somewhat stronger flyer. The bird flew for some time allowing all of us to observe the flight pattern. The dark feathers seemed to extend farther down its belly than those of the Harlequin Duck. The two white head spots, its solid dark wings, sloping profile and chunky, heavy shape, along with its uniform dark color led us to believe that this was a wintering Surf Scoter."—Bill Weber, Bob Fiehweg, and Dick Garber

Late Sora at Arpin—"Behind our home at Arpin is a small spot in the ditch which holds water and thus in cold weather, a good place for kids to go ice skating. This is about one-fourth of a mile south of a small marsh. On December 5, 1967 our oldest son Don Jr. came in with a bird and asked me what was the matter with it. It was an immature Sora Rail (*Porzana carolina*) and it appeared to be in healthy condition even though it was dead. I could find no external signs of damage to the bird, such as shot wounds, etc. Since the boys had been using the pond daily after school, I can only assume that the bird was not there previous to this date. Perhaps owing to the fact that the bird was a juvenile may account for this late date. The bird has since been turned over to Mr. Vincent Heig, the ornithology instructor at Wisconsin State University at Stevens Point, and will be preserved in the school's museum of natural history as number 186."—Don Follen



ANNUAL BUSINESS MEETING

Wisconsin Society for Ornithology, Inc.

Green Bay, Wis. — May 18, 1968

The meeting was called to order at 3:45 P. M. by President George Becker with about 125 present.

MINUTES of the previous Annual meeting, having been printed in the *Passenger Pigeon*, made available to all members and no amendments or corrections being offered, were approved as printed.

TREASURER—Mrs. Holz gave her usual comprehensive report (appended), explaining all the various funds set up by the Board of Directors, reminding that WSO's only sources of income are dues, donations and bookstore receipts. In addition to the multiple and ever-increasing expenses of running so large an organization, the Society has, during the past year, contributed \$100 to a Texas Prairie Chicken Survival project, \$500 to Goose Pond purchase, \$500 for 1967 and \$850 for the 1968 Osprey Study and \$2000 to the Chiwaukee Prairie Project. The balance sheet is still showing the value of land, bond, books, cash, etc. to be \$29,381.48. (How fortunate to have a Treasurer who takes care of all this so capably.)

Copies of reports from several officers were distributed—condensed as follows—

PRESIDENT—repeated later.

VICE-PRESIDENT—David Cox announced that arrangements have been made to hold the 1969 Convention in Beloit. Superior will host the 1970 Convention.

SECRETARY—Hazel Cox has taken the minutes of the Annual meeting and 3 of the 4 Board meetings, she thanked Mrs. Baumgartner for taking her place while she was in Mexico. As the Society seems to gain in size and importance, the amount of mail that she receives as surprisingly increased.

MEMBERSHIP—Mrs. Mattern reports 907 paid memberships (186 Jt.)—total number of members 1093. There were still 78 unpaid—20 have cancelled and there are 7 deceased.

PUBLICATIONS—Mr. Holz has published the WSO membership list, attended Board meetings, examined and reported on the Erickson property, made the plaque for the 1968 Silver Pigeon Award and was Program Chairman for the 1968 WSO Convention. (These brief reports fail to show the terrific amount of work done for the Society by Mrs. Mattern and both Mr. and Mrs. Holz.)

EDUCATION—Mrs. Hussong has acquired about 100 new slides through the co-operation of Ed Prins and of Wm. Pugh, both of Racine. Several schools have used the slides in classes and although the number of calls was lower than last year, the number of viewers was higher than usual.

STEENBOCK AWARD—Mrs. Hussong announced that the Annual Steenbock Award had been given to Charles Sindelar of Waukesha, to be used in his further study of the endangered osprey during 1968.

PUBLICITY—Don Hendrick has released 5 stories about the Society and its activities to the state's daily newspapers; an article in the *Wisconsin Conservation Bulletin* stimulated a number of requests for information, some from as far away as Missouri and Florida; an article about teaching a bird class received national publicity in the *American Biology Teacher* and local newspapers have printed a number of stories about Bird Club Activities in their areas.

ENDOWMENTS AND ADVERTISEMENTS—Carl Hayssen Jr. notes the small amount of advertising—\$100 each from Mary and Charley Nelson and from William Pugh and would like to have a more definite program established in regard to the place of advertising in future issues of the *Passenger Pigeon*.

N. A. NEST RECORD PROGRAM—Arol Eppler reports that this program, under the auspices of the Cornell University Laboratory of Ornithology and sponsored in Wisconsin by WSO, is in its 4th year of operation. To date 115 individuals in this state have, in the past 3 nesting seasons, observed and reported on 1,780 nests. The number of persons taking part has dropped and an effort is being made to interest more people.

BLUEBIRD TRAIL PROGRAM—(Due to the unflagging interest and hard work of Mr. and Mrs. Paul Romig) this program, started in 1962 with a \$250 advance from WSO, has been making an impact across the nation. 5105 Guides have been distributed in 36 different states, Wisconsin 4H purchases 500 each year, Eau Claire Co. 4H Club received a Governor's Award for Bluebird Trail Work, Cindy Lotto, Green Grove 4H

demonstrated BB Trail Activities at the 1966 State Fair, receiving top conservation Award and Carol Kaster, Brown Co. 4H had a 1/2-page story, "Life Along the Bluebird Trail" printed in the national publication **Purple Martin News**. R. A. F. flyers have purchased Guides to take back to the British Isles and Garden Clubs in Virginia and North Carolina have erected Bluebird Trails. This project is self-supporting—expense to date—\$956.16, total income—\$1,205.66 including the advance from WSO.

4H AWARDS—Carla O. Kruse reported that all entrants in the 4H Songbird Project were provided with a check list and field card, 4 county winners also received a copy of "Golden Nature Guide to Birds", WSO pen and notepad. In addition to the "Robbins Guide" and small items received by the 4 Red winners, Blue winners, Don Weirichs, of Kewaunee Co. and Don Bauldry, Brown Co. were given a 1-year membership in WSO (student). Michael Wagner, Manitowoc Co. received a copy of Gromme's "Birds of Wisconsin" as the state's top member in the Project.

RESEARCH—Fred and Fran Hamerstrom—The Osprey Survey was directed by Charles Sindelar Jr. and assisted by Allen Jacobson in 1967, its second year. This major project will not only be continued in 1968 under Sindelar's direction, but will be expanded to include an early check to count eggs and a later check to see how many young fledged. The Wisconsin Department of Natural Resources will make airplane surveys in May and July to help with the investigation; the National Audubon Society is coordinating all osprey surveys in the lake states. Frank Wrenn's kingfisher inquiry received 347 replies, mostly resulting from help by Bob Ellarson's radio program, by WSO members, and by **Wisconsin Tales and Trails**. Tom Erdman received few replies from his Shrike Inquiry, suggesting perhaps that shrikes may not be as abundant as formerly in parts of Wisconsin.

SUPPLY DEPARTMENT—Harold Kruse said that they had filled 412 orders by mail in 1967 in addition to Convention sales and sales by Coxes, Peartrees and Fristers. Total income—over \$8000, expenses approximately \$6000. \$1000 was turned over to the WSO treasury. Mark and Marilyn Hanson of Appleton now have charge of the WSO bookstore bookkeeping and have helped in the preparation of the "soon to appear" catalog.

ASSOCIATE EDITOR—Sam Robbins calls in Field Notes, checks for accuracy and sends them to the seasonal editors; he prepares quarterly summaries of Wisconsin observations for **Audubon Field Notes**; directs the Christmas Counts and the breeding bird surveys and is updating the list of extreme arrival and departure dates for all Wisconsin species for publication in the **Passenger Pigeon**.

SEASONAL EDITORS—Mrs. Chipman edited Spring Field Notes, the May Count and wrote **By the Wayside** for Spring 1967.

Hal and Nancy Roberts edited Summer Field Notes and prepared manuscript for publication in the **Passenger Pigeon**.

FILEKEEPER—Mrs. Arthur Gauerke says "What can I say?—I just work on the files and look up information when people write and ask for it." (Note—Mrs. Gauerke has established a new file in which will be kept photographs, articles and reports on rare birds.—G. B.)

ADDRESSOGRAPH—Mrs. E. R. Schmidt reports a mailing increase for the **Badger Birder** from 796 copies of No. 18, Jan. 1964 to 977 copies of No. 62, Apr. 1968. Addressed envelopes are stuffed and sent out to members and to many others including libraries, by Frank King of Madison. She thanked all who cooperate in keeping the files up to date.

BADGER BIRDER—Mary Donald told of the complicated system by which the 11 copies of the bulletin are sent out during the year—she makes up the copy—Lowell Hall has it stenciled—Carl Hayssen takes it to Oconomowoc where Mr. and Mrs. James Fuller do the mimeographing—folding and stapling are done by the S. Paul Jones Bird Club of which Norma Schmidt is a member and she addresses them and gets them in the mail—(quite a Chain-Gang!!!!!!) She thanked all who send in items and hopes to hear from more people in the future.

End of previously submitted reports.

Members of the Board of Directors and all other workers mentioned in these reports were asked to stand and received a very nice round of applause. Tom Erdman was not present—Fran Hamerstrom asked that he be given every possible assistance in his shrike study.

(Oral reports—continued)

CONSERVATION—Frederick Baumgartner said that the Committee had taken action on several vital issues during the year; several of these actions brought significant

results—1. A statement of the position of the Society relative to the management of the Canada Goose at the Horicon marshes stressed the importance of protecting adequate breeding-stock in the Mississippi Flyway, the operation of an orderly hunting season, provision of full opportunities for people to observe these birds at Horicon. 2. A statement opposing the use of dieldrin and DDT in control of Dutch Elm Disease by the Michigan Department of Agriculture and a number of municipalities in that state. The vigorous stand on this problem involving court action by the Environmental Defense Fund, Inc. stimulated several cities to changes from the use of DDT to Sevin. 3. Support of the setting aside of rain-forest preserves for the Quetzal in Middle America. 4. Opposition to a hunting season on mourning doves in Wisconsin.

The following resolution was read and approved by vote of those present—

“Whereas—the proposed mourning dove season (September 1 through 22) would result in an earlier extension of the hunting season, and

Whereas this would result in an increased illegal kill of predatory and non-game bird species, and

Whereas the Wisconsin Society for Ornithology, Inc. is devoted to the protection and preservation of bird life.

Therefore the Wisconsin Society for Ornithology is opposed to placing the mourning dove on the legal game list.”

LEGAL COUNSEL—H. Lowell Hall absent—no report.

FIELD TRIPS—Edward Peartree announced the Walk up the Valley at Honey Creek for the next Sunday, May 26 and said that the Spring Campout would be near LaCrosse June 15-16.

CUSTODIAN—Walter Scott is working with the State Historical Society collecting material for a History of Natural Resources in Wisconsin. Nothing comprehensive has been done in this line since Dr. Grosse on Wildlife in Wisconsin in the 1930s.

He is drawing on material published by WSO, letters from ornithologists and his own field notes. He would like any pertinent material from past officers and also pictures and Wallace and Hazel Grange, Paul Erickson and both Herb Stoddard Sr. and Jr.

He also mentioned the problem of taking material to the Historical Society. * * * New Supply Department Assistants Mark and Marilyn Hanson were introduced and received a hearty welcome to the ranks.

EDITOR—Charles Kemper has sent out 3 issues of the Pigeon and one is at the printers. He has plenty of material on hand but always welcomes more, especially does he wish for pictures for the files—he also welcomes constructive criticism. A letter from Sam Robbins asks for help in recruiting personnel for summer transects.

CIRCULATION MANAGER—Frank King stated that he had no problems.

HONEY CREEK—Mr. Kruse said that there are over 1200 protected acres in the area and it is beautiful now, everyone is welcome to enjoy it. The Secretary was asked to try to find out if there is an available list of State Bird Clubs.

OLD BUSINESS—None.

NEW BUSINESS—The question of reduced banquet rates for children was discussed and will be investigated.

The disturbing proposals for beautifying highway rights-of-way by removal of native trees and shrubs, replacing them with exotic types were given much consideration—resulting in the endorsement of the following Resolution—

Resolution on Highway Beautification and Right-of-Way Development

“Whereas trees and other native vegetation are being destroyed or removed from Interstate and State highway rights-of-way, and

Whereas even in wild and rural areas, exotic species appropriate only for urban and suburban development are being planted, and

Whereas such developments degrade the natural landscape and limit the habitat for the native fauna,

There be it resolved that the Wisconsin Society for Ornithology at its annual meeting at Green Bay, May 18, 1968, strongly urges the Wisconsin Division of Highways to employ an ecologist to make recommendations or to approve the proposals of others concerning all landscape development of the rights-of-way of all state and federal highways.”

Harold Kruse warned that unless gates are closed at Honey Creek, trouble may follow. This warning will be repeated in the **Badger Birder**.

The Chairman of the Nominating Committee, Fred Hamerstrom, presented the following slate of officers—President, Nils Dahlstrand; Vice-President, Harold Mathiak; Treasurer, Phyllis Holz; Secretary, Hazel Cox and Editor, Charles Kemper. No nomi-

nations being presented from the floor the Secretary was instructed to cast a unanimous ballot for the above slate and did so.

President Becker said he had been impressed by the variety of habitat and the primitive nature of the Honey Creek holdings, he reported the substantial gifts given by the Society to further conservation of natural resources and expressed his gratitude to all who had been helpful in making the Society a most vital bird organization, praising birders as a fine unselfish lot and working with them, most rewarding.

He was given a rousing vote of thanks and appreciation as he passed the gavel to the new President, Nils Dahlstrand.

A well-deserved Resolution, honoring Mr. Holz, Mr. Romig and all their co-workers was read and vigorously approved—

“Whereas the N. E. Wisconsin Audubon Society had volunteered an invitation to host the Annual Convention, and

Whereas the program, facilities and special arrangements show ingenuity and excellent organization,

Therefore be it resolved that the Wisconsin Society for Ornithology extend its sincere thanks to the N. E. Wisconsin Audubon Society.”

No further business being brought before the meeting it was adjourned at 4:45 p. m.

Respectfully submitted,

Hazel Cox, Secretary



In Memoriam

Mr. Howard Bast, of Delafield, died of cancer recently at Oconomowoc Memorial Hospital. He had remained active until September, when he became ill.

Mr. Bast was born in Milwaukee and was graduated from the University of Wisconsin Law school in 1928. He practiced alone until 1965, when he formed the partnership of Bast & Sendik, 6014 W. Congress St.

Mr. Bast was a member of the Milwaukee Bar Association and its probate, practice and procedures and professional ethics committees. He also was a member of the State Bar of Wisconsin Economics and Professional Ethics committees.

He belonged to the American College of Probate Counsel, American Trial Lawyers Association and the planning commission of the Town of Delafield.

Bird watching was a hobby for Mr. Bast, and he was legal counsel for the Wisconsin Ornithological Society. He was a member of Trinity Church and a member of the bishop's committee of St. Mary's Episcopal Church, Dousman.

Survivors are his wife, Elizabeth, and a son, Howard W., Jr., Elm Grove.



W. S. O. OFFICERS & COMMITTEES—1968-69

- President:** Harold Mathiak,* 209 S. Finch, Horicon (414-485-3037)
Vice President: David Cox,* 1105 Cottage Ave.,
Beloit 53511 (608-365-8230)
Secretary: Mrs. David Cox,* 1105 Cottage Ave.,
Beloit 53511 (608-365-8230)
Treasurer: Mrs. Alfred O. Holz,* 125 Kolb St.,
Green Bay 54301 (414-435-8933)
Membership: Mrs. Earl R. Schmidt,* 450 Seventh St.,
Hartford 53027 (414-673-3054)
Conservation: Frederick M. Baumgartner,* Wisconsin State
University, Stevens Point 54481 (715-341-0494)
Publications: Alfred O. Holz,* 125 Kolb St.,
Green Bay 54301 (414-435-8933)
Education: Mrs. R. P. Hussong,* 332 Beaupre Ave.,
Green Bay 54301 (414-437-3825)
Publicity: Donald J. Hendricks,* 228 E. Somo Ave.,
Tomahawk 54487 (715-453-3984)
Endowments & Advertisements: Carl G. Hayssen, Jr.,*
Box 368, Route 1, Hartland 53029 (414-966-2839)
Legal Counsel: H. Lowell Hall,* Milwaukee 53217 (414-352-5079)
Field Trips: Edward W. Peartree,* 36516 Lisbon Road,
Oconomowoc 53066 (414-632-9048)
Custodian: Walter E. Scott, 1721 Hickory Drive,
Madison 53705 (608-233-6140)

Research Committee

- Chairman:** Dr. and Mrs. Frederick Hamerstrom, Jr.,*
Plainfield 54966 (715-335-4100)

Supply Department

- Manager:** Harold C. Kruse,* Hickory Hill Farm,
Loganville 53943 (608-727-2289)
Handles orders for books, stationery, etc. Catalog available.
10% discount to WSO members for ornithological supplies.
Assistants: Edward W. Peartree,* 36516 Lisbon Road,
Oconomowoc 53066 (Records)
Mrs. C. P. Frister, 2956A N. 38th St., Milwaukee 53210
David J. Cox, 1905 Cottage Avenue, Beloit 53511
Roy L. Lukes, 621 Wisconsin Ave., Kewaunee 54216
Mark and Marilyn Hanson, 534 Durkee St., Appleton 53066

Editorial Staff

- Editor:** Charles A. Kemper, M.D.,* 733 Maple St.,
Chippewa Falls 54729 (715-723-3815)
Circulation Manager: Frank H. King, 646 Knickerbocker St.,
Madison 53711 (608-233-7090)
Associate Editor: Rev. Samuel D. Robbins,
Roberts 54023 (715-289-4869)
The Badger Birder Editor: Mary Donald,* 6918 N. Belmont Lane,
Milwaukee 53217 (414-352-8940)

Seasonal Editors:

- (spring) Mrs. Merwood Chipman, Rt. 2, Wautoma 54982
(summer) Mr. and Mrs. Harold Roberts, 818 Clark St.,
Stevens Point 54481
(autumn) Daryl Tessen, 930-8 East Shady Way,
Arlington Heights, Illinois 60004
(winter) William Hilsenhoff, 33 Eau Claire Ave.,
Madison 53705

- File Keeper:** Mrs. Arthur Gauerke, 37783 Division St.,
Oconomowoc 53066 (414-567-3365)

- Addressograph:** Mrs. Earl R. Schmidt, 450 Seventh St.,
Hartford 53027

- Mimeograph:** Mr. and Mrs. James Fuller, 5566 Marquette Ave.,
Oconomowoc 53066

*Member Board of Directors

