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The PASSENGER PIGEON

VOLUME XII

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NUMBER 3



SPARROW HAWK
ADULT MALE
GEORGE PRINS



A MAGAZINE OF WISCONSIN BIRD STUDY

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NEWS...

With this issue, and at our request, Jim Zimmerman has submitted his first seasonal "outdoor calendar." It is expected that this calendar will deal not only with birds and their habits and activities, but also with other forms of wildlife, especially with those things which are ecologically associated with birds. The plan is to print this seasonal calendar in advance so that it may be used on our field trips. The ecological approach to bird study is relatively new in its application, but it is exceedingly interesting. Nor will the calendar be limited in its scope. Jim plans to bring in some phenological items of interest at times, and may even explain how to identify some of the subjects under consideration. Jim's material will be concerned with the southern part of Wisconsin for the present, but it is hoped that members in other parts will be stimulated to keep similar records so that the project may become statewide and cooperative in nature.

The Christmas bird count will be taken this year as usual with results printed in *The Passenger Pigeon*. Sam Robbins will get out announcements soon outlining methods of procedure, dates, and other requirements.

The article on the yellow-headed blackbird in this issue reminds us that questionnaires will be sent out this year on the range and population of the red-bellied woodpecker in Wisconsin. Please continue to be on the lookout for it in your locality.

The Committee on Education and Publicity, Dixie Larkin, chairman, held another all-day field trip for the Society near Cedar Grove on October 8. A story of this outing will appear in our next issue.

Don't forget the state maps which our Field Notes Editor is keeping for plotting nest records of birds. These maps will present a "birds-eye" view of nesting ranges within our state when they are completed with your help.

Have you any new photographs of birds? *The Passenger Pigeon* could use a new assortment. It is understood that they should be of excellent quality.

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THE YELLOW-HEADED BLACKBIRD IN WISCONSIN

By ROBERT S. ELLARSON

Introduction

The yellow-headed blackbird, *Xanthocephalus xanthocephalus* (Bonaparte), as a result of its highly localized and limited distribution within the state, and in spite of its deceptive abundance on certain breeding marshes, must be considered one of the lesser known breeding birds of Wisconsin. Over ten per cent of the members of the Wisconsin Society for Ornithology who cooperated in the survey of this species had never seen a yellow-headed blackbird.

In order to better define its range and to investigate the ecology and populations of yellow-headed blackbirds within the state, the Wisconsin Society for Ornithology distributed questionnaires dealing with this species to its members in the fall of 1949. The information obtained from these questionnaires, the cited literature, plus some information obtained by the author while working with a colony of "yellow-heads" near Sun Prairie, Wisconsin, have formed the basis for this paper.

Historical

Thomas Say first added the yellow-headed blackbird to the North American avifauna while attached to Major Long's expedition to the Rocky Mountains in 1819-1820¹⁶. Nuttall and Audubon both considered the range of this species to be confined west of the Mississippi River, and it was not until 1850 at which time Thure Kumlien included it in his list of birds that its presence east of the Mississippi was established¹⁷. During the period 1851 to 1854 Kumlien sent several skins, nests, and eggs to Thomas Brewer who sold them to collectors in the East¹⁸.

Distribution

Ridgway gives the range of the yellow-headed blackbird as follows, "Open districts of west and central North America, winters southern United States west of Mississippi and most of Mexico. Breeding east to prairie sloughs of upper Mississippi valley, N. E. Illinois, N. W. Indiana, and S. Wisconsin."¹⁵ This eastward extension of breeding range is highly interesting and helps to shed considerable light on this bird's ecology since this eastward extension follows precisely the eastward extension of the botanical prairie peninsula across the upper Mississippi River. From this one may deduce that this species was confined to breeding almost exclusively in prairie sloughs and marshes before the advent of white settlement. This was probably due to the birds' strong tendency toward feeding on open uplands which under primeval conditions was available only on the treeless prairies or in thinly timbered oak openings bordering the prairie. However, this also raises the still unanswered question of why the yellow-headed blackbird has failed to extend its range appreciably in view of the extensive clearing of forested lands around the eastern periphery of its range.

In plotting the range of this species in Wisconsin it was necessary to carefully screen the numbers and location of colonies listed in the questionnaires to eliminate possible duplications, and if errors are present,

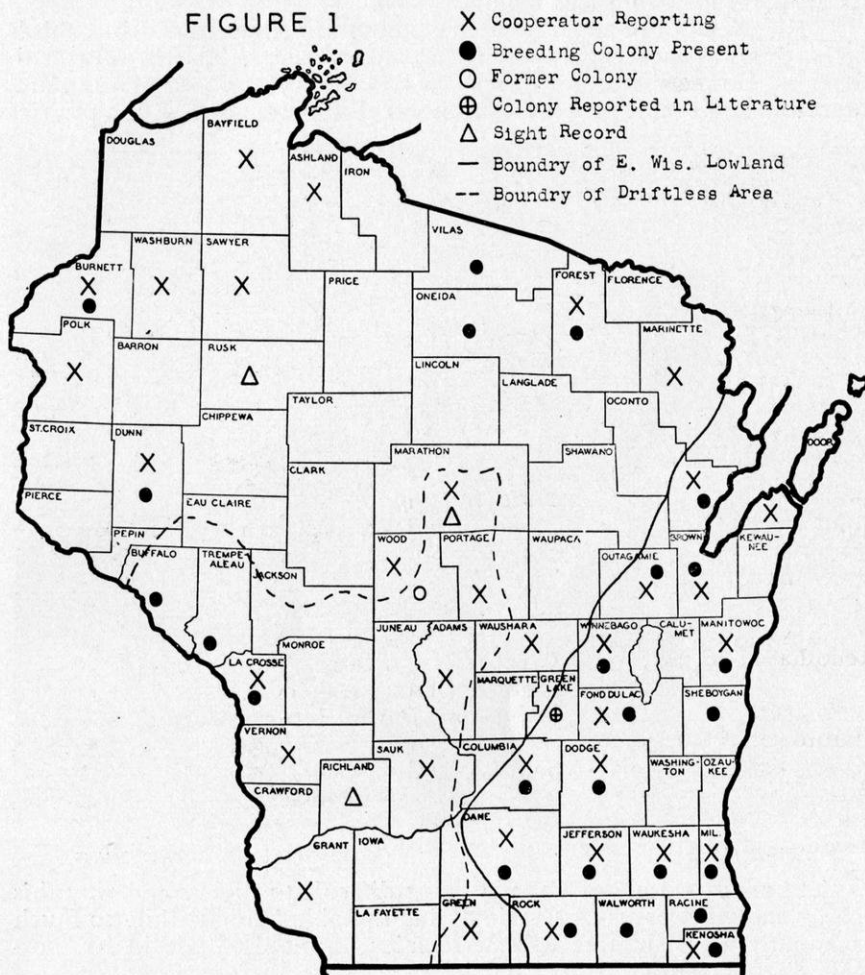
they are most probably errors of omission. The task of evaluating the reports of colonies was further confused by the fact that for nine of the counties from which colonies were reported other observers reporting on the same counties stated that none were to be found there. However, these counties were included within the range as the submitted data seemed to substantiate the presence of breeding colonies.

Table I gives a summary of the counties in which yellow-headed black-bird colonies are found together with the number of colonies, location of colonies (where known), and the number of cooperators reporting colonies for each county.

TABLE I

Counties with Yellow-headed Black- bird Colonies	Number of Colonies	LOCATION OF COLONIES	Number of Cooperators Reporting One or More Colonies
Brown	1	Around Green Bay	2
Buffalo	?	Mississippi River Bottom Marsh	1
Burnett	1	Clam Lake 1949, Munson Lake 1948	1
Columbia	1	not given	1
Dane	5	Dunn's Marsh, Duschack's Marsh, Fish Lake, Lake Barney, Marsh on Dr. Baumann's Farm 1 mile east of Lake Monona	5
Dodge	2	Horicon Marsh, Rock River south of Horicon	3
Dunn	1	Lake Menomonie	1
Fond du Lac	2	West Shore Lake Winnebago	3
Forest	?	not given	1+1 in litt. ²⁴
Green Lake	?	not given	in litt. ⁸
Jefferson	4	Rock Lake, Red Cedar Lake, Lake Koshkonong, Storr's Lake	4
Kenosha	4	Camp Lake, Hooker Lake, Mont- gomery Lake, Wilmot Marsh	4
La Crosse	?	Mississippi River Bottom Marshes	1
Manitowoc	1	near Reedsville and Collins	1
Milwaukee	1	South of Hales Corners	1
Oconto	2-3	near Oconto and Pensaukee	2
Oneida	1	near Tomahawk	2
Outagamie	1	Appleton	in litt. ²⁴
Racine	1	Wind Lake	1
Rock	4	Davidson's Marsh, Round Lake, Bauer's Lake, Miller's Pond,	6
Sheboygan	1	Sheboygan Marsh	1
Trempeleau	?	River bottom marshes	1
Vilas	?	not given	1
Walworth	1	Lake Como	3
Waukesha	2	Big Muskego Lake, Beaver Dam Marsh	4
Winnebago	5	Lake Butte de Morts, South of Nee- nah, 2 between Winnebago and Fond du Lac, near Oshkosh	10
Wood	1	not given	2

Figure I shows the distribution of the "yellow-head" colonies in relation to the Eastern Lowland geographical province as defined by Martin¹⁰ and in relation to the driftless area of southwestern Wisconsin. It will be noted from this map that the major breeding range of this bird is concentrated within this eastern lowland area. This distribution is entirely in keeping with what appears to be the preferred habitat of this species.

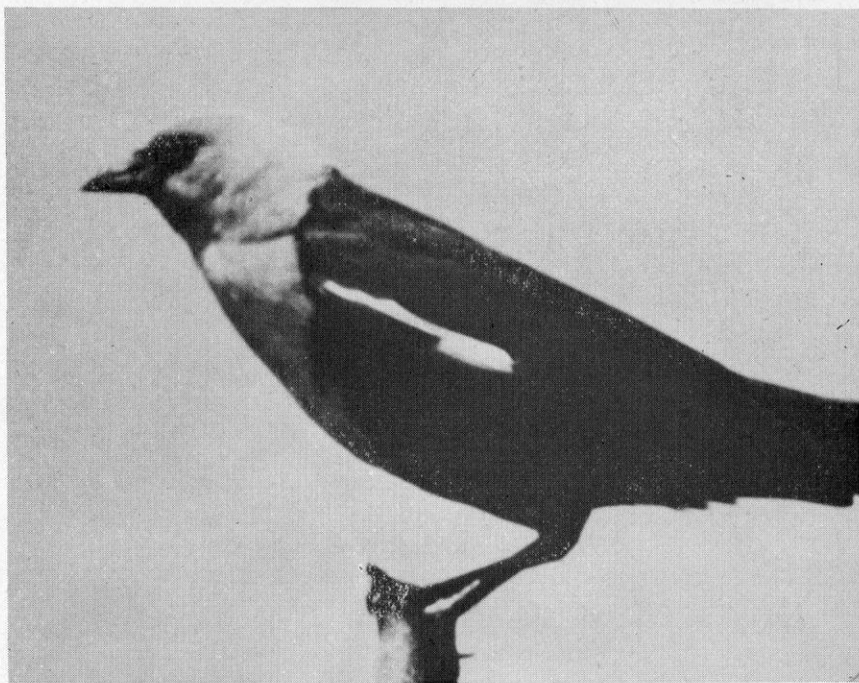


The area is characterized by a level to gently rolling topography with a poorly defined drainage pattern resulting in numerous marshes and shallow weedy lakes which closely approximates the conditions found in the center of the birds' breeding range in the prairie country of the western states.

The driftless area is totally devoid of breeding colonies of yellow-headed blackbirds except for colonies located in the Mississippi bottom-land marshes. The absence of the bird from all except this narrow strip is undoubtedly the result of almost a complete lack of suitable marsh

habitat within this area. Mr. Clarence A. Searles and Mr. Wallace B. Grange both reported former colonies from the central Wisconsin sand plain area which is included in the driftless area. Both agree that to their knowledge the bird is not present at this time. Mr. and Mrs. F. N. Hamerstrom, who have done a great deal of field work in this area, have never seen the bird in the central Wisconsin sand plain area, attesting to its great rarity within this region.

The presence of small isolated colonies of yellow-headed blackbirds in northern Wisconsin in typically Canadian zone habitat is difficult to explain. However, it is not unique to Wisconsin since both Macoun and Macoun¹⁰ and Preble¹² record small isolated colonies north of the prairies



ADULT MALE

HOWARD ORIANIS

in the Canadian zone of Canada. It is difficult to understand why this species should select such seemingly inhospitable habitat while so much apparently more suitable habitat remains uncolonized within its "normal" range.

The range of the bird within the state appears to be relatively stable except for the isolated colonies in the north and the colonies in Manitowoc and Sheboygan counties which appear to be recent extensions of the birds' range.

Migration

The yellow-headed blackbird migrates in sexually differentiated flocks. The adult males arrive two to three weeks ahead of the females.

An average of 25 arrival dates for Wisconsin^{24 25} ranging from March 30 to May 10 show the average arrival date to be April 23. There are in-

sufficient data available to attempt to plot average arrival dates at various latitudes in Wisconsin, but data from Iowa and Minnesota tend to indicate that our average arrival date is from one to two weeks behind their average dates^{13 16}. The yellow-headed blackbird wanders very little during its spring migration, flying directly to its breeding marsh^{2 16}. This habit coupled with the restricted breeding range of the species in Wisconsin undoubtedly results in the scarcity of early spring arrival dates, for if an observer does not have a breeding marsh under close observation the first arrival date will most certainly be missed. During the past three years the author's first arrival dates for Dane County have been as follows: 1948—April 14; 1949—April 2; 1950—April 17. The average of these three dates (April 11) is intermediate between the average date for northern Iowa (April 5)¹³, and the average date for southern Minnesota (April 16)¹⁶. This earlier date does seem to be more in keeping with the Iowa and Minnesota averages than the average based on the 25 dates. The author's first arrival dates are based on one or two birds at most, the bulk of the breeding males arriving a week to ten days later.

Breeding

The question of what constitutes suitable breeding habitat for "yellow-heads" is a perplexing one. The one factor on which there appears to be complete agreement is that the nest must be constructed over open water. The type of vegetation in which the nest is constructed seems to be of lesser importance. Fautin³ in Utah found the birds nesting in shrubs (*Salix* sp. and *Tamarix gallica*), Roberts¹⁷ lists *Phragmites* as the preferred nesting site except when high waters forced the birds into *Salix* and *Scirpus*, while Macoun and Macoun¹⁰ found *Typha latifolia* to be preferred in Canada with some nests also being found in *Scirpus*. For Wisconsin the following list of plants in which "yellow-head" nests were found was compiled from the questionnaires.

PLANTS

Cooperators Reporting

Cattail (<i>Typha</i> sp.)	17
Bulrush and Roundstem Bulrush (<i>Scirpus</i> sp.)	7
Reeds (<i>Phragmites</i>)?	4
Grasses and Tall Grasses*	3
<i>Phragmites</i>	1
Cane Grass (<i>Phragmites</i>)?	1
Burreed (<i>Sparganium</i>)	1

*The author doubts if "yellow-heads" in Wisconsin ever nest in grasses other than *Phragmites*.

The average size of 20 marshes reported as breeding areas in Wisconsin is approximately 55 acres, with a range from 3 to 200+ acres. The "yellow-head" does appear to prefer nesting in larger marshes or in marshes bordering lake shores or rivers but this may be due largely to more favorable water conditions existing in these larger marshy areas.

One important clue to the birds' habitat preference was supplied by Harold Mathiak and Robert Dorney, who reported a remarkable increase in yellow-headed blackbirds on Horicon marsh during the past year (1949-1950). This increase seems to be correlated with an increasing water depth that has resulted in what Mr. Mathiak considers to be a more favorable interspersed of open water and "cattail islands," thereby breaking up the solid stands of cattail which seem to be less desirable as nesting cover.

The following list of birds found breeding in the same marshes with yellow-headed blackbirds was compiled from the Wisconsin questionnaires.

Species	Number Reporting	Species	Number Reporting
Red-winged Blackbird	25	Blue-winged Teal	4
Florida Gallinule	19	Pied-billed Grebe	3
American Coot	12	American Bittern	1
Black Tern	12	Great Blue Heron	1
Marsh Wren (both species) ..	10	Black-crowned Night Heron	1
Least Bittern	8	Ruddy Duck	1
Mallard	8	Red-breasted Merganser	1
Sora	6	Tree Swallow	1
Virginia Rail	6	Swamp Sparrow	1

To anyone familiar with marsh bird life this list of breeding birds will furnish a far more graphic description of the type of marsh preferred by "yellow-heads" than any description the author could give.

The yellow-headed blackbird male does not breed until his second year and the species is polygamous.³ Fautin³ in Utah found that breeding males had harems of from two to four females. Male territories appear to be well established before the females arrive on the breeding marshes.

The nest building is done solely by the female. The early first nests are always constructed in last year's dead plant remains as the new green growth is seldom high enough to be of any value as a nest support. The nest is constructed of wet plant remains woven around several stalks of stiff erect vegetation. As the nest material dries it shrinks and is firmly bound to the supporting stalks. It is lined with rather coarse shreds of cattail leaves and stalks or *Phragmites* leaves. Nests are usually constructed 12 to 36 inches above the water level. "Yellow-head" nests appear to be of two general shapes, a more or less hemispherical nest five to seven inches long, and an inverted cone shaped nest 8 to 10 inches long. All of over 200 nests examined by the author and which were constructed in cattail were of this first type, while a single nest built in bulrush was of the latter type. Roberts¹⁷ found the long conical type the one used by the birds when building in *Phragmites*. It would appear from this evidence that the shallower nest form is used by the birds when building on a relatively rigid substrate such as dead cattail stalks, and that the longer nest form is used when building in less rigid and more willowy substrates such as offered by bulrushes and *Phragmites*, the longer nest giving greater rigidity to the more slender stalks. Virtually no data are available as to the time of nest construction in Wisconsin, but since it usually begins within a week after the females arrive on the marsh, the first two weeks of May would include most of the nest construction activity. Clutches vary from two to six eggs with four the usual size. Early clutches or first nesting attempts tend to have larger numbers of eggs than later or second nesting attempts¹⁸. The female does all of the incubating, and incubation time varies from 12 to 13 days³. Allowing 4 days to complete a clutch with incubation beginning on the day the second or third egg is laid³, would place the average hatching date for Wisconsin sometime in the first week of June. This date corresponds very well with the author's observations as it was found that the bulk of the young on the Sun

Prairie Marsh are fledged during the second and third week of June which allows for a 9 to 11 day nestling period. After the young are fledged they remain in the marsh for about two weeks, after which time they leave and are seldom seen again in the vicinity of the breeding marsh.

Some breeding activity continues and young may be found in the nest up to the first week of July. These late broods undoubtedly represent renesting attempts. By mid-July the "yellow-head" marshes are deserted and the birds wander around the countryside in loose flocks. It is during this period of the birds' stay in Wisconsin that virtually nothing seems to be known of its movements or habits. The adult males by this time have lost most of their gaudy yellow feathers which are replaced by their rich deep golden winter plumage. The average departure date is



THE NEST

HOWARD ORIAN

FEMALE IS PARTLY OBSCURED BY SHADOWS

given by Schorger as August 19,²⁰ although stragglers have been noted as late as October 28.²⁴

The birds winter in the southern United States west of the Mississippi River down into Mexico and Central America. Throughout its winter range it roams about in flocks leading a sort of cowbird-like existence.¹⁶

Only one winter record for this species is available from Wisconsin. A yellow-headed blackbird was reported seen by S. H. Richards near New Glarus, Wisconsin, on February 15, 1947.²⁵

Populations

There is no information available regarding population trends for the yellow-headed blackbird in Wisconsin before the turn of the century. In 1903, Kumlien and Hollister in **The Birds of Wisconsin** remarked

that the yellow-headed blackbirds appeared to be increasing,⁷ and A. J. Schoenebeck found the bird a common breeder in Oconto County.¹⁸ Mrs. Angie Kumlien Main found the birds very numerous around Lake Koshkonong, so numerous in fact, that in 1916 a nearby cornfield had to be replanted due to the birds pulling up the sprouted corn. Following this high a decline was noted continuing to 1923 which she attributes to falling water levels in Lake Koshkonong.⁹ Mr. J. B. Kendall in his questionnaire reported: "The yellow-head used to be very abundant from 1911 to about 1917 in this area [Green Bay]. After many years of seeing none they seem to be returning in considerable numbers." H. L. Stoddard reported seeing yellow-headed blackbirds in the 1920's on Big Muskego Lake in Waukesha County in greater numbers than he had ever seen them before.²¹ On this same marsh Mr. P. W. Hoffmann of Oconomowoc found a very marked decline in birds from 1935, when an extensive colony was still present, up to 1945, at which time the colony was reduced to almost nothing. Lillian Marsh reports that a colony that she has observed on Lake Winnebago between Oshkosh and Neenah four years ago had about 100 birds in it; each succeeding year the colony has dwindled until in 1949 no more than seven or eight birds were sighted during three visits to the marsh.

C. J. Richter in his additions and comments to A. J. Schoenebeck's **Birds of Oconto County**, states that the birds can hardly be called common, being found only in marshes along the Green Bay shore and never in any numbers.¹⁴ In contrast to these reports of declining numbers are several most encouraging reports of population increases observed in recent years by members submitting questionnaires. Mrs. Lyell Porter reports that a marsh two miles west of Edgerton which had dried up and lost its "yellow-head" colony during the drought years has now recovered, and the birds are very much on the increase; Ray Steele states that the Mississippi River bottom colonies have at least doubled in number; C. J. Skelly believes there are more birds in each of three colonies around Milton (Jefferson County); the Davidson colony having tripled in size. Harold Mathiak reported an increase in 1949 over previous years for the birds on Horicon marsh, while Robert Dorney reports a phenomenal increase of from 75% to 100% for the same area from 1949 to 1950. He estimated the breeding population of Horicon marsh in the vicinity of 500 pairs occupying roughly 1,000 acres of suitable habitat. In addition to these notes the May Field Notes for the 1939 and 1940 **Passenger Pigeon** indicate a greater abundance of "yellow-heads" seen during these two years.

In general, the above information gives one the impression that the birds were on the increase during the first two decades of the twentieth century, then suffered a decline during the 1920's, culminating in the drought of 1930's, and since that time have been staging a comeback. This analysis is without doubt an oversimplification since within the past decade certain marshes have shown declines and others good increases. The entire population picture is a dynamic one which, with the incomplete data available, can scarcely be brought into focus to say nothing of analyzing it.

The yellow-headed blackbird is a thinly distributed species at the periphery of its range in Wisconsin. On such a species environmental

factors and influences are apt to have drastic effects on the total population. Severe drought or drainage may eliminate many colonies through a drying up of nesting marshes. Predation by mink or other mammalian predators can eliminate the entire year's crop of young from a breeding colony by methodically robbing nests,¹⁷ while severe wind and rain storms can account for a large number of active nests in a colony.³ Nests were also listed as being destroyed in Wisconsin by the following agencies: flooding when off shore wind raises water levels in Green Bay, eggs punctured by marsh wrens, and eggs being destroyed by least bitterns.

SUMMARY

The yellow-headed blackbird has a highly localized distribution in Wisconsin with the largest number of breeding colonies concentrated in the southeastern portion of the state. The average arrival date in Wisconsin appears to fall within the second week of April. Females arrive about May 1, and the period of greatest nesting activity occurs during the last two weeks of May and the first two weeks of June. By mid-July the birds have largely disappeared from the marshes and wander about the country in loose flocks. The average departure date for Wisconsin is August 19.

The population fluctuations of this species cannot be satisfactorily analyzed due to insufficient available data. At the present time, however, the birds seem to be increasing on most breeding marshes, although a few marshes have shown a marked decrease in birds.

Several interesting problems present themselves to be worked on regarding the yellow-headed blackbird in Wisconsin, the most important of these being to work out an accurate census of this species for the state. This should not be as great a task as it sounds since the bird can very easily be censused by counting singing males on a marsh during the last two weeks of May, during which time they are highly territorial and very much in evidence. Succeeding years' data from such a census would give a very accurate picture of population trends within the state. Secondly, get information on the small colonies in northern Wisconsin, and try to determine the habitat preferences for the bird in this area so that they may be compared with the habitat in southern Wisconsin. Thirdly, watch for records of movement or any activity during the period after the birds have left the breeding marsh and before they migrate in the fall. Fourthly, attempt to determine where first-year male birds spend their summers as they are never in evidence around breeding marshes and in conjunction with this, try to determine if females breed at one year of age.

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LIST OF CONTRIBUTORS

Contributor	Counties Reported On
1. Mrs. V. A. Axeley	Bayfield
2. Mrs. L. M. Babcock	Rock
3. George S. Bachay	Rock
4. Robert A. Bailey	Washburn
5. Bernard Bradle	Forest
6. Mrs. Harold Brown	Outagamie, Winnebago, Dane
7. Alfred S. Bradford	Outagamie, Winnebago, Fond du Lac
8. Mrs. Alvin C. Bromm	Milwaukee
9. Marie Barlow Backman	Oconto, Forest, Oneida, Vilas
10. Edwin R. Cleary	Brown
11. Robert S. Dorney	Dodge
12. Ann Dunham (Milw. Downer Coll.) ..	Waukesha, Dane, Winnebago, Racine
13. John T. Emlen	Dane
14. J. H. Evans	Winnebago
15. Mrs. Glen Fisher	Winnebago
16. Mrs. T. A. Froedrich	Ashland
17. Mabelle F. Gates	Wood
18. Paul C. Gatterdam, M. D.	La Crosse
19. Richard J. Gordon	Oneida, Kenosha
20. Wallace B. Grange	Wood
21. Mrs. F. N. Hamerstrom	Waukegan, Portage, Adams
22. Felix A. Hartmeister	Burnett
23. L. Heinsohn	Polk
24. Paul W. Hoffmann	Waukesha
25. Mrs. Howard Higgins	Kenosha, Milwaukee
26. Laurence R. Jahn	Jefferson
27. Karl W. Kahmann	Sawyer
28. Josephine B. Kelley	Waukesha

Contributor	Counties Reported On
29. J. B. Kendall	Brown
30. Frank King	Manitowoc, Sheboygan, Winnebago, Outagamie
31. J. Kroupa	Manitowoc, Dane
32. Harold Kruse	Sauk, Dane
33. Mason, S. Le Tellier, M. D.	Milwaukee, Walworth, Waukesha
34. Mattison, Helmer	Dunn
35. Phillip Marlow	Dodge, Dane, Jefferson
36. Lillian Marsh	Manitowoc, Winnebago
37. Harold Mathiak	Dodge
38. Margarette E. Morse	Vernon, Walworth
39. Mrs. R. A. Mullenise	Wood
40. Donna Nelson	Kenosha
41. Ethel Allis Nott	Sauk, Columbia
42. Joseph O'Hara	Jefferson
43. H. C. and Gordon Orians	Waukesha, Green
44. Edna M. Peebles	Winnebago, Fond du Lac
45. Mrs. Lyell Porter	Jefferson
46. Miss Alma Prucha	Milwaukee
47. Myron Reichwaldt	Manitowoc
48. C. H. Richter	Oconto
49. George Ruegger	Sawyer, Winnebago
50. Walter E. Scott	Dane, Jefferson
51. C. A. Searles	Wood
52. C. J. Skelly	Jefferson
53. Ray C. Steele	Trempealeau, Buffalo, La Crosse
54. Norman R. Stone	Burnett
55. Landon B. Thomas	Dane, Rock
56. Alvin L. Throne	Milwaukee, Winnebago, Waukesha
57. Mrs. Floyd Traxler	Jefferson
58. William Urban	Marathon
59. Howard L. Van Ness	Columbia
60. Russel O. Wagner	Grant
61. Harold C. Wilson	Door, Winnebago
62. Carl Welty	Walworth, Rock
63. R. J. Laumeyer	Winnebago

Department of Wildlife Management
University of Wisconsin

OUTDOOR CALENDAR: AUTUMN

By JAMES H. ZIMMERMAN

If Thoreau could have been set down in the wilderness in his vicinity without knowing the season, he would have been able to estimate the date to within a week, so familiar was he with the happenings through the year among the plants, birds and other wildlife. It is here proposed that we could profitably reverse this sequence; that instead of using such an enviable intimacy with nature as a calendar, we let the orderliness of natural events help us become more proficient naturalists. For when one keeps track of the dates of a few conspicuous happenings—arrival of nighthawk, blooming of basswood, or rhythmic song of first tree cricket for a few years, he is struck not only by the accuracy of their timing, but also by the vastness of the biological drama which goes on, largely unheeded, on every hand. After he has made himself watch for certain specific phenomena, he begins to notice many other sights and sounds—"new" and "strange" details in the drama which were there all the time but which he could not untangle from each other until he could pick out a few that were familiar.

The aim of this department, then, is not to present a chronology as an end in itself, interesting as this may be, but rather to increase our awareness of the complex background of sights and sounds that is our environment to increase our alertness for the unknown by presenting a time-table of what little has been observed as a framework on which to build knowledge. It is hoped that field trips can be made more interesting by an exchange of such information through these pages.

To begin with, much of the material will be drawn from the vicinity of Madison, where yearly dates have been recorded by various observers for some time. (A few of these records have been published.^{2 3}) If you live at Milwaukee or Necedah, to say nothing of Rhinelander, this calendar can only serve as a suggestive reference-point, being useful in the degree to which your local drama differs from it. Do your migrants arrive earlier or later, your plants bloom at different times, your birds sing for more weeks or less than at Madison? Which species are nesters with you but only migrants or wanderers here? Is the interval between arrivals of fox sparrow and green heron the same in all localities? What species of plants and animals do you have which we have not?

Some day, perhaps, comparative records can be accumulated at certain other stations in the state, eventually to make possible concurrent calendars for several regions, each conducted by someone familiar with his own area. Furthermore, many worthy projects could be undertaken if a network of cooperative ecological observers were established throughout Wisconsin. For instance, the progress of migration fronts or waves of several common birds could be accurately mapped, day by day, during a season. Such a comprehensive undertaking, though hardly burdensome for any individual observer, has never been tried; we have no detailed local records of either birds or weather at a large number of stations. Only when such information is available can any real light be shed on the old problem of the relationship of weather and other environmental factors to migration. It should be emphasized that this department is to remain merely a means to various ends. The present imperfect beginning is a trial balloon, to be blown whichever way the need urges it. Suggestions for improvement in meeting the stated objectives are enthusiastically solicited.

October birds: Autumn bird events which can be tagged with dates are largely arrivals and departures. The W. S. O. checklist⁴ tells us which species we can expect to find in the state as a whole, on a given day. There is need for a more specific migration calendar—one for each locality. And as a further adjunct to the check-list it would seem useful to begin to catalog information on each species, during the period when it is present, such as behavior, calls, food, and habitat preferences. There is room this time for only a few fragments of the Madison bird picture in fall. (Dates given, such as Oct. 8 or 31, are approximate; when all the present sources of migration data have been compiled, better averages and notes on the range of variation will be included.)

October 8: At Madison the last silent mourning doves disappear, except for the few unfortunate ones that stay, to regret their decision later. Also now the last swirling, high-flying band of chimney swifts slowly works its way south, occasionally accompanied by a tardy night hawk or two. In 1949 swifts were last seen Oct. 10, when strong south gales beat backward a south-bound goose flock and grounded all other birds. But the swifts remained to the windward of a hill, seeming to enjoy being buffeted about and tossed past trees and rooftops like so many leaves, always struggling back for more. Have others observed such behavior in high winds?

October plants: In order to appreciate any species we need to ask: what are its merits, where is it found, and how does it fit into the ecological picture? But first we need to be able to identify it in the field. Early October is a good time to start learning the plants, for only three genera still have several native members in flower. Bold in display on hill and marsh are the goldenrods. So, too, are the many asters, in lavender and white and purple. But the real jewels of autumn are the gentians—"mirrors of the sky." Gentians, never painting broad murals on the landscape, are found by accident; this element of unexpectedness enhances the pleasure of finding flowers whose unusual color is so startling amid the drying grasses. Though several gentians reach their peak of

bloom earlier, most still have flowers through mid-October, especially in seasons as late as 1950 has been so far.

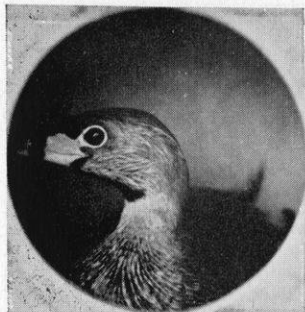
At the risk of straying rather far from ornithology, all of the Wisconsin gentians will be described, in an attempt at completeness. If only certain species were to be mentioned, one of the others would be sure to be found by the reader; it would be like trying to identify warblers or shore birds if some had been omitted from Peterson's Field Guide. Moreover, the gentians as a group are as much a part of fall in open country as the glory of autumn foliage is in woodland: they are at least as worthy of notice as the more familiar spring wildflowers of the forest floor. In the fall, any plant with opposite (paired) leaves and large, radially symmetrical blue flowers, whose four or five petals are united for their lower two-thirds or more into a tube, can safely be called a gentian. All of these 6- to 24-inch plants point their flowers stiffly skyward. (Names are as used in Gray's Manual¹, which, while technical, is indispensable, by virtue of its completeness, for identifying Wisconsin plants.)

In the haunts of snipe and green heron one may see the fringed gentians, easily known by the delicately-cut margins of their four frail petals. Though paler in sunlight than October skies, the widely-spreading flowers present a generous square inch of clear blue. And if you catch them near sunset, when the sky is full of red-wings headed for their roost, the closing blooms in each long shadow glow with a deep intensity that defies description. How such a modest biennial plant can store enough food in the first year to send up a slender stem that has more flower than leaf in the second is a mystery. Their habitat is in moist, sunny places: springy ground, peat or marl meadows, wet sand, boggy stream-banks or moist cliffs, never in water though sometimes near, and usually not where the vegetation is tall or very dense.

Gentiana procera has long, extremely slender leaves. It has been found in the southeast quarter of Wisconsin and in Door and Marinette Counties. Since 1945, at Madison, the first few flowers have opened between Aug. 23 and Sept. 11 (average Sept. 2). Last blooms were found Oct. 5 to Nov. 2 (average Oct. 19). *G. crinita*, judging from specimens in the University of Wisconsin Herbarium, has similar blooming dates. Its leaves are short and broad-based, almost triangular, and it grows in slightly dryer, but still moist, places scattered throughout the state.

When a trip through open upland or a picnic on a bluff-top fails to produce the expected hawk flight, a search for the next two gentians is in order. Short-lived like the two fringed gentians but quite different is

I. O. BUSS



PIED-BILLED GREBE

the miniature *G. quinquefolia*, distinguished by the small size of the many lavender flowers, the tubes being only about one-eighth inch in diameter. This much-branched plant hides in the grass and one may not see it at first; but when the light is right, the massed flowers light up like little candles, which they resemble in shape. This species is likely to be met almost anywhere in the southern half of Wisconsin, but especially on sandy, thinly-wooded bluffs, moist or dry prairies, or rocky slopes.

Madison plants begin flowering on the average by Sept. 8 (range for 1944-1949 was Aug. 31-Sept. 16) and continue through Oct. 20 (range: Sept. 30-Nov. 5). One herbarium specimen was in bloom by Aug. 22.

Returning to the large-flowered species, we come to the long-lived perennial ones: clumps of several leafy stems with stalkless flowers crowded mostly at the top. Among these, *G. puberula* is strangely not well known. "Indigo gentian" would be appropriate; no bunting of the spring could match either the velvety richness or the brightness of the five leathery petals, intensely deep blue, when they spread open in the sun. Though these are dull green to maroon on the back, the blue of the plaited membranes connecting them even shows when the flower is closed. Look for this latest-blooming gentian in dry sand, under scattered trees or in the open. It also occurs commonly on the dryer prairies, associating with the many colorful dry-plains plants which have been preserved along railroads and on hilltops whose soil is too thin to plow. Such relic stands of this prairie vegetation are easily located from now until snow flies by their distinct pinkish-brown tint, lent by the autumn coloration of the dense clumps of broomsedge or prairie beardgrass (*Andropogon scoparius*). On this grass the white fuzz of the seeds frays out all up and down the stiff, slender, two-foot stems. Probably certain birds, too, are as characteristic of the prairies as this grass. Though the prairie birds need further study, it seems as if bluebirds, western meadowlarks and the last few field and vesper sparrows are seldom far from the indigo gentian's blooms. This gentian has been found from Eau Claire and Portage Counties southward, especially in the counties touching the Wisconsin River.

Extreme blooming dates on specimens are Aug. 23 and Oct. 26. In the same year, time of flowering differs considerably from place to place. Average dates for one Madison station were Sept. 13—Oct. 9, while a few more plants three miles away averaged Sept. 25—Oct. 14, since 1944.

Near a thicket of red osier dogwood, alive with the voices of white-throats and early fox sparrows and maybe a late transient towhee or thrasher, the adjacent marsh by contrast appears to offer little save the lifeless chip of the ever-present song sparrow or a plaintive note from a goldfinch on a thistle head. But the parting of tall massed asters reveals a glimpse of a short-billed marsh wren or elicits a scold from the last yellow-throat. Also hidden in such a place is the bottle gentian, displaying yet a different blue, again remarkably brilliant, as well as a unique flower shape. "Barrel" would more aptly describe the form of these inch-long flowers, which never open except when a husky bumblebee forces its way inside, stretching out and exposing the plaited white membranes that alternate with the five purple-blue to china-blue petals. By October the effect changes; adjacent flowers of different ages are now old rose, purple and light brown, as well as those still blue.

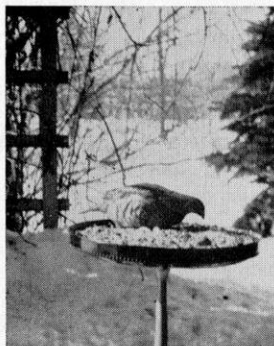
The robust, broad-leafed *G. Andrewsii* occurs throughout the state in grassy meadows, on marsh edges and stream banks and in moist thickets, having about the same moisture requirements as elderberry, near which it can often be found. Depending on the habitat, the plant form of this showiest gentian varies from a single floppy stem to an upright bush the size of a bushel basket, with 25 stalks and some 150 flowers.

An early-blooming specimen is dated Aug. 4, but mid-September is the time for their best display. In 1944-1949, bloom began between Aug. 12 and 30 (av. Aug. 22) at Madison. Last blue flowers were found Oct. 2 to 18 (av. Oct. 10). A few other plants in a willow thicket were showy until Oct. 29, 1947. In northern Sauk County,² first bloom averaged Sept. 1 (range Aug. 23—Sept. 6) in seven years (1939-1945), and the latest flowers were recorded Oct. 15, 1943.

Scarcer and less spectacular are the next two species, also of the "bottle" type. Though their broadly rounded petal-tips do extend somewhat beyond the connecting membranes (in *Andrewsii* they are shorter and less wide than the fringed borders of the unfolded white parts), these flowers do not open wide. In Door, Brown and the two northernmost tiers of counties, *G. rubricaulis* has been collected on sandy lake shores and edges of swamps. It blooms early; the range of dates on specimens is Aug. 16 to Sept. 7. The blue is softer and paler and more toward lilac than that of *Andrewsii*, and the upper half of the stem has only two or three pairs of egg-shaped leaves while the lower has many narrow ones. *G. flavida* is our only gentian that is never blue; not as pure white as an albino *Andrewsii*, its flowers are creamy or yellowish or greenish white. As with *quinquefolia* its habitat is difficult to predict, for it ranges from bluff-tops to low meadows. This species has been found southeast of a line through Door and Grant counties and also near the St. Croix River. Specimens in flower are dated Aug. 6 to Sept. 24. If you find a gentian that does not quite match one of these seven, you have something rare, indeed—a hybrid, perhaps, or a species unrecorded for the state. But the "common" ones, which, like gold, are where you find them, are treasure enough.

October 31: The last of the long flocks of acorn-gorged grackles announce their departure overhead, and soon the high, thin scream of the last itinerant robin will have been heard. But a far more momentous event is the passing of the last white-throated sparrows through town. The fact that one immediately misses these companionable, business-like leaf-rustlers when they have left for good is testimony to how much of the fall atmosphere their busy activity and constant conversation provide. One wonders if any leaf-mold-inhabiting invertebrate escapes the eye of this most abundant migrant, who literally leaves no leaf unturned in search of food. It is written that this species eats weed seeds for the most part; but while some do frequent weedy fields and roadsides, others linger for a week or two in wooded areas. Here, for five weeks, as group after group replace each other, one is kept posted on their daily abundance by their calls. Commanding attention is the clear, brisk note that lies somewhere between **chink** and **peach** and sounds hard, and even metallic, to some ears. It is difficult to confuse with any other voice except

MRS. CLOUGH GATES



RUFFED GROUSE AT FEEDER

near water, where one may hear the dryer chip of swamp sparrows or the more musical **bink** of waterthrushes, all in the same thicket. Though it is part of the daily talk, along with **tseet** and the nostalgic fragments of spring song, one especially associates this sound with the hazy, still evenings that come only in fall; for then the calling suddenly rises in intensity as the group prepares to roost. In the rapidly-fading light after sunset every woodlot-edge rings for ten or fifteen minutes with a continuous chorus of cheerful chinks. It is often the only sound to be heard so late, for when the last sleepy call dies away, one is startled by the sudden silence in the sharp, chill air.

November: Around the 10th we can expect the whistlers (golden-eyes) to arrive on the lakes.

While most ducks and coots and pied-billed grebes have been on hand in abundance since September or October, the golden-eyes come late, when the cold wind whips the water and one's hands grow cold trying to steady the glass against the support and dubious shelter of a willow trunk. On one's approach these shy birds rise as one to form a sharp, swiftly-moving pattern of black and white. The high-pitched whistling of the fast wings, which seems to carry farther than the sound of other flying ducks, comes as a faint, brief tinkling in the crisp silence when a flock passes overhead after a December snow.

December: By now is heard the "spring" singing of white-breasted nuthatch. Exact dates are useless, for the song period begins with a few sporadic fragments and gradually increases in frequency, but it became noticeable between Oct. 7 and Dec. 22 in the past six years. In the coldest winter days, this bird may devote ten or fifteen minutes, especially at dawn, to continuous song, each deliberate **wiwiwiwiwiwiwiwi** separated from the next by a predictable interval of time. The sound is more musical and quite different at 400 feet than at twenty. Another measured cadence to listen for is the first drumming of hairy woodpecker. It is pleasing to find how much music a hairy can extract from a dead stub; one soon can locate the bird by ear alone, for each snag resonates with its own characteristic pitch. No other woodpecker drums in midwinter, at least in Madison. Like nuthatch, they are scarce enough so that, at most, only one or two are within earshot at once. Therefore this sound, like that of the nuthatch, is heard only irregularly through the winter, whether it occurs daily or not. First drumming has been heard as early as Dec. 26 and as late as Feb. 11; daily observation is needed to determine how variable this event really is. And for a real understanding of the significance of this activity, we still need to find out such elementary facts as whether the male or the female does most of the drumming! To discover the meaning of the nuthatch song, if it is that, seems more difficult, because of the similarity of sexes. A behavior study of marked nuthatches would be possible, however, since these permanent residents readily come to a feeder and are so much less shy than the hairy.

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- Madison, Wisconsin
August 31, 1950

THE ORIGIN OF THE COMMON NAMES OF WISCONSIN BIRDS

By H. W. SCHAARS

(Continued from last issue)

280. (585) Eastern Fox Sparrow

At first it was called "Fox-colored Sparrow". It is readily recognized by the rich tawny coloring, the color of a fox in summer pelage. In western North America Ridgway recognized eight species of Fox Sparrow.

281. (587) Red-eyed Towhee

This name is intended to represent its characteristic call-note. The iris of the Towhee is red.

282. (588) Arctic Towhee

This Towhee is not too much Arctic. It breeds in the plains and foothills of the Rockies from southern Alberta to west central Montana and northwestern Nebraska.

283. (593) Eastern Cardinal

A papal ecclesiastical prince is called "cardinal". The cardinal's cassock is a deep scarlet. That is the color of this cheerful bird. It is distributed in Eastern United States.

284. (595) Rose-breasted Grosbeak

The male has the center portion of its breast a rose-red or carmine.

285. (597) Eastern Blue Grosbeak

The uniform color of this handsome bird is a dull ultramarine blue. West of Louisiana is a separate variety, the Western Blue Grosbeak.

286. (598) Indigo Bunting

Mr. L. Nelson Nichols said, "It isn't an indigo color, but rather a deep ultramarine blue. Just as you made up your mind that that is the right name of the color, you get the bird in a different light and behold he is grayish-blue, or azure-blue, or maybe olive-blue."

287. (604) Dickcissel

The unmistakable, yet simple song of "dick, dick, cissel, cissel, cissel" has earned for this bird its name.

288. (607) Western Tanager

The word "Tanager" is simply altered from **Tanagra**, a word of the Tupi language in Brazil. Both **Tanagra** and **Tangara** were used by the earlier authors. Linnaeus, perhaps by a misprint, gave "Tanager" its currency. Look for this bird in Western North America, from the eastern base of the Rocky Mountains to the Pacific Coast.

289. (609) Scarlet Tanager

The male is of a uniform intense scarlet color, only shoulder, wings, and tail being black.

290. (610) Summer Tanager

In its range it is the harbinger of summer. When people see this Tanager, they know summer is now here.

291. (611) Purple Martin

Bartram called this bird the "great purple martin". His "Purple" might more correctly be called a glossy steel-blue.

292. (612) Northern Cliff Swallow

Skeat asserts the word "Swallow" means a 'tosser' or a 'mover to and fro', from the flight of the bird. Early explorers from the West were impressed by the enormous collection of Cliff Swallow mud-bottle nests plastered against perpendicular rocks, on the face of high cliffs, especially near the confluence of the Niobrara and Missouri rivers. As the settlers moved in, the birds left the rocks to become residents under the eaves of the farmers' barns. This "Northern" contrasts with the Lesser and the Mexican, both inhabitants of Mexico and the countries to the south.

293. (613) Barn Swallow

The original nesting sites of these Swallows was in caves and under overhanging ledges. As the whites settled down and built barns, the birds found the interior of these buildings so much better protection from the elements and the natural enemies.

294. (614) Tree Swallow

Now swallow boxes will readily attract these friendly birds. Originally a dead tree stub or the rotting upturned tree root of a flooded area was its favorite site.

295. (616) Bank Swallow

Its nest is an excavation made in a sand bank, a colony of these birds often "honey-combing" the appearance of that bank.

296. (617) Rough-winged Swallow

You feel a file-like roughness when the finger is drawn along the outermost primaries of the wing from the base to the tip.

297. (618) Bohemian Waxwing

The secondaries of the wings have small, red, waxlike tips, resembling red sealing wax. "Bohemian" and "gypsy" were synonymous in earlier English. A characteristic of a gypsy is to lead a social, vagabond, irregular life. These Waxwings fit into that picture quite well.

298. (619) Cedar Waxwing

Dr. Thomas S. Roberts writes, "It is most abundant in the northern coniferous forests, where it is at home both on the uplands and in the spruce and tamarack swamps."

299. (621) Northern Shrike

The word "Shrike" seems to come from "shriek", having a shrill voice. The word "Northern" distinguishes it from its southern relative, the Loggerhead.

300. (622) Migrant Shrike

It is simple to figure out why this Shrike should be called "Migrant" in preference to the other species.

301. (624) Red-eyed Vireo

The Latin *Vireo* would lead us to think of a "green finch" or a "greenlet". The iris of its eye is brownish-red.

302. (626) Philadelphia Vireo

This bird was first discovered near Philadelphia by Cassin, who then named it in honor of the City of Brotherly Love.

303. (627) Eastern Warbling Vireo

This "Vireo" is a persistent singer. You will likely hear the song from the top of a tall shade tree. The song is a singularly smooth and running warble. In Western North America there is a smaller and darker form of this bird, the Western Warbling Vireo.

(Continued in next issue)

THE BIRDS OF WISCONSIN

By L. KUMLIEN and N. HOLLISTER

With Revisions by A. W. Schorger

(Continued from last issue)

Cyanospiza cyanea (Linn.). Indigo Bunting.

An abundant summer resident, sharing with the little yellow warbler the right to nest in any clump of bushes bordering on, or in the woods. The female is exceedingly shy and retired, but the male loves to sit for hours at the top of some tall tree standing a short distance from the brush, and there repeatedly sing his dainty notes.

Spiza americana (Gmel.). Dickcissel.

A common summer resident, sometimes almost abundant. The dickcissel seems to be a very erratic bird. In some parts of the state it is rather uncertain or rare, while in other districts it is in certain years really abundant. It was formerly rare in Walworth County, for instance, but in the season of 1901 was one of the most common of roadside birds, a male sitting every few rods along favorable highways. For the past ten years, in this county, the species has been on the increase. Taking the state at large also it is much more abundant generally than thirty to forty years ago. Two broods are very likely reared in a summer, as we have found eggs in June, and young, only recently from the nest, in September.

[This erratic species has been bred as far north as Waupaca County. A good review of its status in Wisconsin has been published by R. D. Taber (*Pass. Pigeon* 9, 1947:39-46).]

FAMILY HIRUNDINIDAE: SWALLOWS

Progne subis (Linn.). Purple Martin.

The familiar and generally beloved martin is a common summer resident, nesting exclusively nowadays about buildings, and in bird houses placed for its especial benefit. As lately as 1869 it was still nesting in hollow trees about Lake Koshkonong, and doubtless in other sections. It does not average anywhere near as common as twenty to thirty years ago. Has been driven from many nesting sites by the English sparrow, and many young die in the nest each year for some reason unknown. It arrives from the first to the middle of April, but seems reluctant to settle down to housekeeping, and as a rule it is nearly the first of June before nesting begins.

Petrochelidon lunifrons (Say). Cliff Swallow.

An abundant summer resident. Nests in colonies of from three or four to upwards of twenty-five pairs, or more, on its favorite barns. Associates constantly, before and after the breeding season, with the barn and tree swallows. It was formerly a very rare bird over some parts of the state where it is now abundant. Fifty years ago it was supposed to ascend the Mississippi and breed at only a few points, whereas at the present time it is abundant the entire width of the state. It was unknown in the early forties in Jefferson County, except as a migrant. Recorded as nesting at Racine for the first time in 1852 (Hoy). In June, 1861, it was nesting in some numbers on Barns in Sauk County (Thure Kumlien), and became common in Jefferson County in 1866. In 1845 it was nesting abundantly on the cliffs at Devil's Lake, and twenty years later was still

breeding there in less numbers, and more about farm houses than on the cliffs. At the present day it has almost entirely deserted the cliffs, in Wisconsin, and has gradually spread out over all the settled parts of the state, until it is one of our most common swallows.

***Hirundo erythrogaster* (Bodd.). Barn Swallow.**

This species, although a common summer resident, is not nearly as abundant as the cliff or tree swallow. Seldom nesting in extensive colonies, it prefers to scatter, ordinarily a few, or even a single pair, occupying a building. It arrives about May first, and leaves early in September.

***Tachycineta bicolor* (Vieill.). Tree Swallow.**

An abundant summer resident. The earliest of the swallows to arrive in the spring, numbers of this species are often caught by severe cold snaps, and perish in their vain attempts to procure food enough to sustain life. Many may sometimes be found, along the lake shores, that have fallen exhausted into the water, on these occasions. The tree swallow prefers to nest in the vicinity of a stream or pond, gathering a mass of feathers into some hole or natural crevice in an old stump or tree on which to lay its eggs. It is easily induced to nest in bird boxes, but not being able to cope with the English sparrow, is quickly driven away. Strange as it may seem this species often becomes the foster parent of the cowbird.

***Riparia riparia* (Linn.). Bank Swallow.**

A common summer resident, but appears to be restricted to certain localities as a breeding bird, and its range in the state is very imperfectly known. Many observers who have published notes must have mistaken large numbers of the next for this species. In all our experience we have found the bank swallow nesting in any numbers only along the shores of Lake Michigan, along the Mississippi River, and about some of the larger inland lakes and rivers, where it nests in colonies. It oftentimes occurs in great numbers along Lake Michigan. In the interior it occurs chiefly as a fall migrant, the common nesting "bank swallow" being the next species.

***Stelgidopteryx serripennis* (Aud.). Rough-winged Swallow.**

From our observation this is the common breeding "bank swallow" which is found scattered over the most of the state. It is usually found nesting in single pairs, or not more than two to four pairs in a single bank, whereas the foregoing nests in large colonies. In Jefferson, Rock, and Walworth counties the rough-wing is sometimes very abundant, flocking in spring and fall with the other swallows. From the fact that the early lists of Wisconsin birds included this species as very rare, if it was mentioned at all, it has evidently been confounded with the bank swallow by many recent observers, and, therefore, anything like the exact range for either species in the state cannot be ascertained at present.

FAMILY AMPELIDAE: WAXWINGS

***Ampelis garrulus* (Linn.). Bohemian Waxwing.**

A winter visitant. Formerly much more common than at the present day. If the weather is severe enough the Bohemian waxwing may reach southern Wisconsin by the middle of November, but it is usually later. If the spring is backward it is sometimes noted as late as April. It is especially numerous along Lake Michigan where it feeds largely on the berries of the mountain ash. We have never found it so abundant any-

where as in the cities along the lake shore where this tree has been planted along the streets. We have noted it in great numbers at Ahnapee, Kewaunee, and Two Rivers, and in 1875 it visited Milwaukee by the thousand. It feeds also on the berries of the wild grape, carrion flower and different species of smilax, also on apples, both wild and cultivated. It is generally stupidly tame and unsuspicious. Of much more regular occurrence from the central part of the state northward, also, than in the southern counties, where in fact, it has been rare of late years.

Ampelis cedrorum (Vieill.). **Cedar Waxwing.**

The cherry-bird, as this species is familiarly known, is another of those birds whose movements are decidedly erratic and uncertain. At a given point it may occur in any month of the year, or be entirely absent at any time. Ordinarily it is a common breeder, nesting in mid-summer.

FAMILY LANIIDAE: SHRIKES

Lanius borealis (Vieill.). **Northern Shrike.**

A winter visitant, regular, and sometimes common. It usually appears in October. Dr. Hoy claimed that a few spent the summer in the middle and northern parts of the state, and the same idea was entertained by Thure Kumlien fifty years ago. The nearest approach to summer residence we can learn of is the case of a young bird in the brown plumage shot September 6, 1891, in Jefferson County. This bird might have come a considerable distance, however. We are unable to obtain any recent authentic records of its remaining in Wisconsin in summer, and very much doubt that it does. The northern shrike here feeds largely on the mice of the genus *Microtus*, but often catches the smaller birds also.

Lanius ludovicianus migrans (Palmer). **Migrant Shrike.**

Summer resident. A very early arrival in spring, often nesting early in April, and again in July. A common bird in open regions, along roadsides and borders of fields, where it nests preferably in isolated, bushy-topped trees. Not as common north of the central part of the state as south of it, except toward the northwest, where it appears to be found more or less to the extreme north portion. We feel that the above name is only provisional, but prefer to include all our smaller shrikes under one name, rather than to include in this list both *ludovicianus* and *excubitorides* as we should otherwise have to do.

FAMILY STURNIDAE: STARLINGS

[**Sturnus vulgaris vulgaris** (Linn.). **Starling.**

Introduced in the east. There was a caged bird in Milwaukee (Milwaukee **Evening Wisconsin** April 17, 1882) in 1882. The first state specimen was found dead in Milwaukee by H. L. Stoddard (**Auk** 40,1923:537) on February 17, 1923. S. P. Jones (**Auk** 44,1927:104) found it nesting at Waukesha in 1926. It was discovered at Madison (A. W. Schorger, **Auk** 45,1928:377) on March 18, 1928, and at Fond du Lac (Delos Hatch, **Oologist** 48, no. 1, Jan., 1931:12) the winter of 1929-30. The spread was rapid. I found a flock of 32 birds on Madeline Island on August 17, 1935. Further information on spread will be found in **Pass. Pigeon** 1,1939:139-41.1

FAMILY VIREONIDAE: VIREOS

Vireo olivaceus (Linn.). **Red-eyed Vireo.**

An abundant summer resident throughout the entire state. This vireo is one of our comonest nesting birds, although, hiding itself away in

the most retired woodlands, as it usually does, it is as little known to the average person as some of our rarest visitors. Here, in any quiet spot, its beautiful song may be heard on all sides the entire summer through. No species appears to be as persistently imposed upon by the renegade cowbird as is the little red-eye; indeed, it is a rare circumstance to find a nest that does not contain one or more eggs of this miserable nuisance.

Vireo philadelphicus (Cass.). **Philadelphia Vireo.**

A regular migrant, especially through the eastern half of the state, where it is of rather common occurrence. It is usually found in company with the migrating warblers in May and September. It is much more common during the autumnal migration than in spring.

Vireo gilvus (Vieill.). **Warbling Vireo.**

In some sections of the state the warbling vireo is an abundant summer resident, and one of the most common of breeding birds, while in other less fortunate districts it seems to be confined largely to migrations, although plenty enough then, and appearing in good numbers during late summer. The species is more at home in the vicinity of dwellings and along the roadsides than its near relatives, nesting, as a rule, in these localities and leaving the deeper woodlands to the equally abundant red-eyed.

Vireo belli belli (Audubon). **Bell's Vireo.**

The first specimen for the state was taken at Madison on July 3, 1914. (N. de Witt Betts, *Auk* 31,1914:542). It is a locally common breeding bird in Grant County, and has been found nesting in Dane County and along the Mississippi River as far north as La Crosse. (W. Taylor, *Auk* 39,1922:575; A. W. Schorger, *Auk* 44,1927:237; J. Hickey, *Pass. Pigeon* 5,1943:4). I have unpublished data on nests found in Dane and Grant Counties.]

Vireo flavifrons (Vieill.). **Yellow-throated Vireo.**

The yellow-throated vireo is a common summer resident in all parts of the state, but by no means so abundant generally as either **olivaceus** or **gilvus**, though exceeding the latter in numbers in some localities. During the migrations, May and September, it is more abundant than at any other time, and is then found everywhere that there are trees, seeming to prefer the open groves to the thicker growths. The nest is one of the most beautifully made of any of our birds, and it is indeed a fine sight to watch a pair of these vireos at work on the little basket-like structure that is to contain the equally exquisite eggs.

[The northern limit of its range has not been established. It has been reported (F. Zirrer, in litt.) as far north as Birchwood, Washburn County, and Oconto County (C. H. Richter, *Pass. Pigeon* 1,1939:126).] **Vireo solitarius** (Wils.). **Blue-headed Vireo.**

A common migrant in May and September, and a regular summer resident in limited numbers. Dr. Hoy reported it as nesting at Racine, and we have noted it as a summer resident at Madison, Two Rivers, Milwaukee and Jefferson. We have, however, found but one nest (Bark River Woods, Jefferson County), and this contained young almost able to fly. It appears to be more common than formerly.

[Now of rare occurrence in summer in southern Wisconsin. I found it to be quite common at Teal Lake, Sawyer County, in 1947 and 1948. A breeding female was taken on June 23, 1948. In June, 1939, P. Wright

(**Pass. Pigeon** 1,1939:108) found a nest containing a cowbird in Douglas County.]

Vireo noveboracensis (Gmel.). **White-eyed Vireo.**

A rare summer resident in southern Wisconsin. So few records are obtainable at other points than Lake Koshkonong that we are able to learn but little regarding the distribution of this species in the state. It is doubtful if it occurs, even in limited numbers, much north of this locality, as several competent observers and sharp collectors have failed to find it.

[This remains a rare species. The last specimen recorded was taken at Madison by A. W. Schorger (**Auk** 41,1924:347) on October 21, 1923. There are the following sight records: two at Racine on May 12, 1939 (**G. Prins, Pass. Pigeon** 1,1939:91); one in Dane County on August 21, 1943 (**S. Robbins, ibid.** 5,1943:74); one on August 31, 1946 and another on June 1, 1947 at Milwaukee (**G. Orians, ibid.** 8,1946:124 and 9,1947:150).]

FAMILY MNIOTILTIDAE: WOOD WARBLERS

Miniotilta varia (Linn.). **Black and White Warbler.**

An abundant migrant, and tolerably common summer resident. This species is one of the first warblers to arrive, appearing in the southern part of the state with the myrtle and palm warblers during the latter part of April. It is common from then until close to the breeding season, when its numbers are greatly diminished. On the southern migration it begins to increase in numbers in August and is again abundant until October.

Protonotaria citrea (Bodd.). **Prothonotary Warbler.**

In suitable localities in the southern and western parts of the state the prothonotary warbler is not a rare summer resident. It was first noted at Lake Koshkonong in 1867, since which time it seems to have become more plenty. Specimens have been recorded from nearly all parts of southern and central Wisconsin. Mr. Clark has so far failed to find it in Dunn County. The northernmost record we are able to obtain is for Shiocton, Outagamie County, May 4, 1882 (1). Apparently more common along the Mississippi than elsewhere in the state. Most observers fail to visit the dense, miry, weed and willow covered overflowed swamp lands where this bird makes its summer home. Considerable numbers nest yearly at Lake Koshkonong. In migrations it visits the woods with warbler flocks.

[This warbler is not common except in western Wisconsin in the bottoms of the Mississippi and Wisconsin Rivers. Its range northward is poorly defined. In addition to the specimen taken by Grundtvig, one was reported seen in Outagamie County in May, 1947 (**Pass. Pigeon** 9,1947:116). Since it breeds regularly along the Mississippi as far north as Red Wing and since an isolated breeding colony exists in Isanti County, Minnesota (T. S. Roberts, *The Birds of Minnesota*, 2,1932:189), it may be expected to occur in Wisconsin as far north as St. Croix Falls.]

Helmitherus vermivorus (Gmel.). **Worm-eating Warbler.**

One of the southern species that rarely straggle to Wisconsin. Thure Kumlien procured one specimen at Lake Koshkonong in May, 1873,

1. Grundtvig, Trans. Wis. Acad. Sci., Arts and Let., X, p. 140.

and one in May, 1877. We have seen a specimen mounted at a taxidermist's shop in Milwaukee which was said to have been taken at that city, and there was no reason to doubt the statement. Dr. Hoy says: "A few nest in this section. Rare." (Racine.) As we remember it he procured but three specimens in all, and knowing it to be a southern species supposed, of course, that it bred, if it occurred there at all.

[This warbler remains rare and it is not known that a specimen has been taken in the last fifty years. One was seen by N. R. Barger and S. Robbins (*Pass. Pigeon* 3,1941:59,75) on May 18, 1941 in Wyalusing State Park, Grant County. It has also been reported at Green Bay (*Pass. Pigeon* 3,1941:59;6,1944:71), Milwaukee (*ibid.* 4,1942:48;6,1944:43,71), Racine (*ibid.* 1,1939:75-6), and Dane County (*ibid.* 4,1942:58). The fact that it is a "very rare summer visitant" in the Chicago area should have a sobering influence on sight records.]

Helminthophila pinus (Linn.). **Blue-winged Warbler.**

Rare summer resident in southern Wisconsin. One adult female taken by Thure Kumlien June 14, 1867, in the Bark River woods, Jefferson County. One obtained by Mr. C. H. Stoddard, May 7, 1885, at La Crosse (1). Save for these two records the bird was unknown in Wisconsin until July 11, 1897, when we found an entire family, parents and four or five young, and took one of the latter, near Delavan. These had been undoubtedly reared here, but a careful search the next year produced but a single male, taken May 22. On May 14, 1899, one was seen nest building in the same wood. Three days later the nest, although still unfinished, contained one egg, and a bird was again seen with nesting material in its beak. On the 22nd the nest was again visited, and the parent shot as she flew from the nest, which now contained six eggs. But one blue-wing had as yet been seen at a time, although the continual "chip, chip" of the mate, the exact call of the one killed (which subsequently proved to be the female) had been frequently heard from the surrounding thicket, while this one was in sight. After a half hour's patient waiting he appeared, and at once showed his deep anxiety and uneasiness at finding us so near the nest. This bird was also shot and proved to be a male Nashville warbler (*H. rubricapilla*) with enormously developed testes. There is not a shadow of a doubt that this bird was the male parent of the clutch of eggs; no one could question that for a moment who had seen his actions at the nest, and although we watched the spot constantly the entire afternoon until nearly dark, remaining hid in the brush, no other bird, Nashville or blue-wing, put in an appearance, nor did we hear a note or call that could have come from either species. Furthermore although collecting in these woods the entire summer not another Nashville warbler was seen short of five miles from the place, and the immediate vicinity of the nest was continually and carefully searched for either species without success. Possibly in our haste to positively identify this rare Wisconsin take, more interesting hybrids between the blue-wing and allied species were destroyed in embryo, as had we known the true state of affairs, the eggs would have been allowed to hatch unmolested in the hope of further developments. Since this time two more specimens have been taken in Walworth County, both in the month of May, and the last, a female, within twenty rods of where the young were found in 1897. Neither of these was apparently breeding when killed.

[A rather common breeding bird in southwestern Wisconsin. Rare north of La Crosse. Breeding in Oconto County (A. J. Schoenebeck, l. c. p. 34) is improbable.]

***Helminthophila chrysoptera* (Linn.). Golden-winged Warbler.**

This superb warbler is a regular, though rather rare, migrant, and a summer resident from the southern part of the state northward. Dr. Hoy took several nests at Racine, and T. Kumlien procured fledglings in Jefferson County. Grundtvig found it common, in fact, "extremely numerous," in Outagamie County in 1882-3. He found it a common summer resident, but did not find a nest. Recorded by Willard as breeding in Brown County, and by Mr. J. N. Clark from Dunn County. We have found it more common along Lake Michigan than elsewhere, and a rather common breeder at Two Rivers in 1881. It is a regular summer resident in Jefferson County, but as elsewhere is restricted to favorite localities.

[Breeds in small numbers locally throughout the state. C. A. Richter (Pass. Pigeon 8, 1946:92) found a nest with five eggs at Oconto on June 9, 1946.]

***Helminthophila rubricapilla* (Wils.). Nashville Warbler.**

A common migrant, becoming exceptionally so in occasional years, especially in the spring. The Nashville warbler nests regularly in different parts of the state. We have nesting records at different times in Walworth County, at Lake Koshkonong, Dunn County, and northward. It is an especially common migrant along Rock River Valley. A favorite nesting site seems to be in tamarack swamps, the nest being placed on *sphagnum*, or reindeer moss.

[Now restricted almost entirely to the northern half of the state during the breeding season. Common.]

***Helminthophila celata* (Say). Orange-crowned Warbler.**

Not a very common species in Wisconsin. From the records and observations we are able to bring together it seems considerably more common in the western than in the eastern part of the state. Mr. J. N. Clark finds it common in Dunn County. In Jefferson and Dane counties it cannot be called common, though regular, especially in spring. It arrives rather earlier than others of the same genus, often in the latter part of April. Dr. Hoy was positive that it bred in the state, and we have taken specimens in Manitowoc County in July. These had without question bred there. Thure Kumlien also procured two specimens in Jefferson County on June 16 (1860). We are confident that it bred in Bayfield County twenty years ago. The majority pass beyond our borders, however.

[There is no breeding record for the state.]

***Helminthophila peregrina* (Wils.). Tennessee Warbler.**

Usually an extraordinarily abundant migrant, especially in fall, at some seasons far outnumbering any other species. From all records we can bring together the verdict seems the same—very abundant migrant, but no authentic record of being summer resident, although it is at times common, even in the southern counties, by August 15.

***Compsothlypis americana ramalinae* (Ridgw.). Western Parula Warbler.**

A common migrant in all parts of the state, and a summer resident in all suitable localities. Mr. Clark has observed it a number of times

1. Report Bird Mig. in Miss. Valley, by W. W. Cooke, Washington, 1888, p. 240.

during the entire summer in Dunn County. Dr. Hoy found it a regular breeder about Racine, and took several nests. Grundtvig states that many breed in Outagamie County, where he found nests and eggs. Willard gives it as breeding in Brown County. The bird is much more common than generally supposed by the amateur observer. It is easily overlooked during the breeding season, as in this section it usually nests at a great height.

[A. J. Schoenebeck (l. c. p. 43) states that it is an uncommon breeding bird in Oconto County. The feat of F. L. Grundtvig (*Trans. Wis. Acad. Sci.* 10,1895:143) of finding many nests in Outagamie County in 1882 and 1883 has not been duplicated. J. N. Lowe (*Bull. Wis. Nat. Hist. Soc.* 13,1915:83) found a nest in the northern part of Green Lake County on June 18, 1908. Philip Wright (*Pass. Pigeon* 1,1939:108) found it common June 17-19, 1939, in Douglas County. In June, 1948, I found it in several localities near Teal Lake, Sawyer County, exclusively in coniferous swamps. At the present time it is confined largely to the northern one-third of the state in summer.]

***Dendroica tigrina* (Gmel.). Cape May Warbler.**

Migrant in May and from the last of August until the middle of September. In some years it is greatly abundant, and in others quite the reverse. Dr. Hoy found it rather common at Racine in May, and thought that a few bred there in 1852. Mr. Grundtvig found it abundant in Outagamie County in 1882, but did not find half as many the following year. Records from all sections of the state seem to indicate that it is more or less common, especially as a spring migrant. So far as our observation goes it is more common along Lake Michigan than elsewhere. We have no very good records of summer residence, although we saw a number of adult males in June between Green Bay and Sturgeon Bay, in Kewaunee and Door counties. It has also been reported from near Ashland in July.

[Apparently nests sparingly. A. J. Schoenebeck (l. c. p. 43) took a nest with the parents in Oconto County on June 11, 1899. It has never been found in this county in summer by C. A. Richter (*Pass. Pigeon* 1,1939:126). H. H. T. Jackson (*Pass. Pigeon* 5,1943:26) mentions a breeding female collected at Herbster, Bayfield County, on June 8 and two young just able to fly seen on Madeline Island on July 21, 1919.]

***Dendroica aestiva* (Gmel.). Yellow Warbler.**

The "yellow-bird" is an abundant summer resident, nesting in every piece of open wood and brushy clearing. It is among the first arrivals of the warblers during the last few days of April, and is busily engaged at nest building by the 10th of May. Universally common and generally distributed over the state.

***Dendroica caerulescens* (Gmel.). Black-throated Blue Warbler.**

A common migrant from May 10 to May 30, and from the first of September until October. All points from which we have any record give this species as common. We are disposed to consider it as really a summer resident in the northern part of the state. There are several records of summer specimens from different sections.

[Occurs in small numbers in northern Wisconsin in summer. Little is known of the breeding range. A. J. Schoenebeck (l. c. p. 44) found several nests in Oconto County.]

***Dendroica coronata* (Linn.). Myrtle Warbler.**

Migrant. The most abundant of all the warblers, the first arrival in the spring, and the last to leave us in the autumn. During late September and October it flocks along the roadsides like the junco and tree sparrow. Sometimes taken in southern Wisconsin as late as December 1. King (1) says "a few may breed in northern Wisconsin, for I obtained a male at Elk Lake in Chippewa County, July 26, 1876." We have never found it in the state in summer.

[A rather common summer resident in the two northern tiers of counties. It was found breeding at Lake Owen, Bayfield County, in 1923 and at Trout Lake, Vilas County, in 1945 by A. W. Schorger (**Auk** 42,1925:68; **Wilson Bull.** 58,1946:186). H. H. T. Jackson (**Pass. Pigeon** 5,1943:26) found juveniles on Madeline Island on July 21, 1919, and W. E. Scott (**ibid.** 4,1942:85) in Vilas County on July 25-6, 1942. It has been reported as breeding in Sawyer County by F. Zirrer (**ibid.** 4,1942:84).]

***Dendroica maculosa* (Gmel.). Magnolia Warbler.**

The beautiful magnolia is also one of our most abundant warblers during the migrations, which reach their height through May and September. There are no authentic records of this species nesting within the state, but as it is recorded as nesting at Mackinac Island and in the north peninsula of Michigan it would not be surprising if a few summered in the state. All observers report it as common during the migrations, but it is far less plenty than thirty years ago.

[Not rare in northern Wisconsin in summer but there are only a few specific breeding records. A. J. Schoenebeck (**l. c.** p. 45) found a nest in Oconto County on July 10, 1894. A nest with two young was found by A. W. Schorger (**Wilson Bull.** 58,1946:186) in Vilas County on July 9, 1945. J. L. Kaspar (**Pass. Pigeon** 7,1945:124) found parents and young in Waupaca County on July 12, 1945.]

***Dendroica rara* (Wils.). Cerulean Warbler.**

A rather rare species in Wisconsin, though of regular occurrence, especially along Lake Michigan. There are many records for Lake Koshkonong, as this section has been closely observed for a long period. There are also records for Delavan, Milwaukee, Racine, Two Rivers, etc. Mr. Clark has not found it in Dunn County. Dr. Hoy considered it as a breeding species, which is very probably true. There is one record for Lake Koshkonong, June 14 (1872).

[A fairly common summer resident of southern and particularly southwestern Wisconsin. It appears to be extending its range northward as it has been found in summer at New London and Neillsville (S. Robbins, **Pass. Pigeon** 8,1946:93, 128; 9,1947:150), and at Fond du Lac (Philip Mallow and V. P. Batha, **ibid.** 9,1947:150). It has been reported during migration at Two Rivers and Oshkosh (**ibid.** 9,1947:117), at Oconto (C. A. Richter, **ibid.** 1,1939:126), and at Babcock (H. A. Mathiak, **ibid.** 4,1942:55). There is no satisfactory account of a nest being found. A. J. Schoenebeck's statement (**l. c.** p. 45) that it nested in Oconto County is open to doubt. W. B. Jackson (**ibid.** 5,1943:74) found young being fed in Waukesha County in July, 1943.]

***Dendroica pensylvanica* (Linn.). Chestnut-sided Warbler.**

An abundant migrant and common summer resident. In the migrations this warbler is found everywhere, but during the summer it prefers the open clearings that have grown up thickly with brush of all kinds, particularly hazel and oak scrubs. It frequently becomes the foster parent of the cowbird. This elegant species seems fully as plenty as thirty-five years ago.

[Formerly an abundant summer resident throughout the state. It now nests rarely in the extreme southern part, but is common in the northern. About 1910, J. N. Lowe (**Bull. Wis. Nat. Hist. Soc.** 13,1915:84) found it to be a common nester in Green Lake County.]

***Dendroica castanea* (Wils.). Bay-breasted Warbler.**

A common migrant, especially in the fall. At this season it sometimes outnumbers all other species. In Jefferson County young have been taken by the middle of August, and we have suspected that some, at least, nest in the extreme northern part of the state, as is surely the case in the northern peninsula of Michigan. An authentic Wisconsin nesting record is, however, yet to be obtained. Some observers report this species as rare, and even absent from certain sections, which it seems must be entirely the fault of the observer. The young in the fall are often confounded with the next. The height of the spring migration in southern Wisconsin ranges from May 10 to May 20, according to the season, and in autumn is from the last days of August to the middle of September. Apparently more common along Lake Michigan than in the interior. Belated individuals have been shot in Jefferson County as late as June 10.

***Dendroica striata* (Forst.). Black-poll Warbler.**

Usually the last of the genus to arrive in the spring, it is sometimes well toward the end of May when the black-poll becomes abundant. Returning it is common again during the latter half of September and well into October. So far as our records show, it is a common migrant in all parts of the state. There is no authentic nesting record of the species, but it has been noted in the northern counties in June and July, and no doubt a few breed within our borders.

[There are no definite nesting records for Wisconsin, Minnesota, or Michigan.]

***Dendroica blackburniae* (Gmel.). Blackburnian Warbler.**

An abundant migrant, arriving with the warbler host early in May. A few nest regularly in the state, even in the southern counties, most often in the tamarack swamps. Eggs have been taken in Jefferson County and young in Manitowoc County (L. K.). Mr. J. N. Clark, of Meridian, writes of this species, and the warblers in general: "Our warblers of every variety, it appears to me, are diminishing in numbers every year. Ten years ago from the 10th to the 25th of May the woods seemed to be alive with them, and I have counted more than a dozen varieties in two hours' observation. Now half a day's search will not reveal half that number. This is also true of many of our insectivorous birds, the Baltimore oriole, phoebe, the vireos and most of the finches being exceptions." This is probably too true of some localities, and probably generally throughout the state to some extent, but there are still many localities where a dozen

varieties of warblers can easily be identified, in good numbers, in even less than two hours.

[A rather common summer resident in northern Wisconsin. There is only one definite case of nesting. A. J. Schoenebeck (I. c. p. 45) took a nest with four fresh eggs on July (June?) 6, 1897 in Oconto County. I have seen adults carrying food in late June in Sawyer and Vilas Counties but no nests were located. Now rare in southern Wisconsin in summer. H. L. Stoddard (*Auk* 34,1917:67) took two adult males in Sauk County on June 27 and July 1, 1913.]

***Dendroica dominica albilora* (Ridgw.). Sycamore Warbler.**

A rare straggler to Wisconsin. Dr. Hoy obtained a single specimen at Racine, June 20, 1848. Taken but once by Thure Kumlien, in 1877, at Lake Koshkonong, and once at some other locality in southern Wisconsin at a very early date, 1842-50.

[This remains a very rare species and no additional specimen can be cited. There are two sight records by S. Robbins (*Pass. Pigeon* 2,1940:81; 4,1942:58) for Dane County, May 6, 1940 and May 8, 1942.]

***Dendroica virens* (Gmel.). Black-throated Green Warbler.**

Migrant. As is the case with many of the warblers, this one occurs in varying numbers, being sometimes only fairly common, and again greatly abundant, either in spring or fall. Dr. Hoy wrote that a few nest with us, and Mr. Clark suspects that they breed in Dunn County, as he has found them during the summer months. Young just able to fly were taken in Jefferson County in July, 1868, and adults are frequently seen in summer as far south as Rock, Dane, and Jefferson Counties. We have known several pairs to remain in the vicinity of Milton all summer but have never succeeded in finding a nest.

***Dendroica vigorsii* (Aud.). Pine Warbler.**

A fairly common summer resident in the pine regions. Migratory in the hardwood districts of southern Wisconsin. Much more common along Lake Michigan than in the interior. A rather early arrival in the spring, generally preceding the majority of the warblers by several days. Although we have never found the nest we have noted this bird at various northern points in June and July. Dr. Hoy gives it as breeding in the northern pine forests, and Mr. Nelson found it nesting in northeastern Illinois.

[A locally rather common summer resident of the northern part of the state. No nest appears to have been found.]

***Dendroica palmarum* (Gmel.). Palm Warbler.**

One of the most numerous and regular of the warblers during the migrations, from the latter part of April until the middle of May, and again from the last half of September until the middle of October. We can find no evidence that it is ever a summer resident within the state, even in the most northern counties. It is one of the earliest arrivals, and frequents the open country along roadsides, rather than the localities usually selected by warblers.

[A rare summer resident in the northern part of the state. W. B. Grange (*Auk* 41,1924:160) found it in northern Rusk County in June and July, 1923. Information on a nest is lacking. F. Zirrér (*Pass. Pigeon* 4,1942:84) states that it breeds in Sawyer County.]

(Continued in next issue)

Walden West

By AUGUST DERLETH

Nothing more arresting comes out of the woods of a summer night than the song of the pewee. Be it in two notes or three, or perhaps, as sometimes, one long drawn-out keening note, the song's nostalgia makes its instant appeal to ear and heart. It comes drifting out of the woods darkening now with dusk and twilight, a voice belonging, it seems, to that world of half dark, though it is no less to be heard at mid-day, when it is but one among a score of others. It arrests, it challenges, it seduces with its invitation to anyone outside that perimeter of darkness, drawing him in, in spirit, certainly, if the flesh but stands to pay its tribute to that invisible singer.

The song of the pewee seems somehow to stand for all that is mysterious and unknown about a woods. Why this should be so, I do not know, but I understand that one comes to listen for the pewee's voice, as I do, year after year. It could as well be disembodied, for in dusk anyone heeding that invitation to come into the darkening woods would seldom see its source, for the woods at night is a place in which to come face to face with one's self, to acknowledge the mote-like insignificance of man in this cosmos. I think of the pewee sometimes as the essential voice of the woods, though the song is often little more than a breath, a whisper, a small keening which drifts out upon the evening air like a melody lost from time gone by, and yet it arrests the ear, it challenges the heart, it demands awareness that here in these notes the woods speaks to every listening ear.

Too, it is the summer's one unfailing voice, rising in every kind of weather, dry or hot, wet, humid or windy, cloying or cool, the one unwavering voice which speaks for the mysterious depths of the woods in which by night there are so many fugitive movements and sounds, rustlings, snapping twigs, strange muted voices, which symbolize that vast, intimate life being lived without cognizance almost side by side with the humming mills of the human beings who are still so far from any integration with the land. In its own way, this dulcet song is as mysterious and unknown as any aspect of a woods at night; dusk and darkness are its proper conditions; the enclosing woods its most fitting milieu. It speaks for the woods, it speaks for all the wild earth, asking over and over for man to come in, to come back to that primitive intimacy with the earth and the sky, with the brooks and the trees and all mankind's wild brothers.

Pe-wee, pe-wee, it says. Pee-awee . . .

Come in, come in, it says. Be not afraid . . .

—making its invitation throughout the dusk and darkness, speaking for the forever mysterious woods, where the very trees in their windy surruration seem to hush and respire, respire and hush with the pulse of unknown night and the rhythm of the planet on its way through eternity.

* * * * *

The wind in the grain of a summer afternoon invites and challenges the birds, the swallows over this green or sienna sea like the gulls over

*WALDEN WEST is a work in progress.

ocean, the foraging hawk high above, eyes keen for movement of mice or shrews, the explosion of pigeons from the face of earth into their beautifully symmetrical movements, three or four or a dozen or a score of them moving all together, not like a number of birds, but as one, like a many-times duplicated illusion, as were the eye seeing not many birds but images of one, to account for the harmony of movement which seems to be the particular property of pigeons.

The swallows and the swifts wheel and dart over the seas of grain, doubtless feeding on the insects dancing in the air invisible to the human eye, the birds skimming the waving grain, restless and forever moving back and forth, sweeping in long parabolas over the fields, as if to set forth irrevocably their mastery of this domain where the sunlight lies with ripening warmth and a microcosmic world lives at the roots of this forest of stems, scarcely visible to the beings who have planted the fields.

Hawks, swallows, and pigeons on their three planes represent three kinds of foragers, whose movements are at one with the wind's in the grain, making of the summer afternoon a kind of brief, finite harmony akin to the waves upon the strand, the turning furrow, the clouds driving over under sun or moon, an integral, primal harmony which stands for the restless movement of all life toward its ultimate goal in death, a thing of singular beauty which few men see, and which most who do see accept without question or meditation, as were it not something vouchsafed them but something that was their due, though here on this planet nothing whatever is man's due, and it behooves a man to thank whatever Providence there is for each moment of beauty that is his.

* * * * *

Often of a summer afternoon I used to meet Georgie Gremm, a man of middle age, ill-favored in looks, for he had weak, myopic eyes, and an unusually large nose, so that his wide mouth lent him a certain grimly batrachian expression; coming upon him quietly enough to catch him in the act of speaking to the birds. This was what he fancied he did, and he believed, furthermore, that the birds talked to him. Moreover, he sometimes held forth in expansive detail about his conversations with a nuthatch, which had answered him, he firmly held, by modulating the syllables of its customary call, the familiar **ur-ur-ur**.

And at such times he was in the habit of pretending that he had stopped to look at a tree or a bird; he would never admit that he was in the midst of a dialogue with a robin or a cardinal or a phoebe. I observed that the birds looked upon him with a certain amount of tolerance and what can hardly be defined as anything else but an instinctive awareness that he was not dangerous, for they hopped about him, flew about him, and in general treated him as far more akin to a tree than to a vaguely menacing class of mammals to which belonged the small boys with guns who constantly harassed the birds of Sac Prairie. On rare occasions a bird would actually perch on his hat or his shoulder, which, he believed, testified to their understanding of his conversation.

This was not, clearly, an intelligible conversation, since George seldom conducted it in the English language, or even in the German, to which tongue he had been accustomed also since birth. He made a series of imitative sounds, which doubtless held some meaning for him, but which remained woefully esoteric to any fellow mammal who chanced along,

though one could understand such imitations as that of the cardinal's song, and the answering bird without difficulty. Such imitations, however, were in the minority; Georgie Gremm's conversations were appreciably more subtle and meaningful than mere imitations, and that only he and the birds understood them did not alter their fundamental nature.

He was a short man, and he walked with a kind of shuffling movement, sometimes jerkily, with his joints very much in evidence, so that he bore at times a remarkable resemblance to a mechanical figure. He was much alone. He lived alone and he worked alone, and in his loneliness doubtless lay the impulse toward his conversations with the birds. He had come back to Sac Prairie from several years in Chicago, where he had worked as a part-time clerk in a store while striving toward the realization of his ambition, which had been to be an illustrator of children's books. Nothing so pretentious as being an artist ever entered his thoughts; all he had hoped to become was an illustrator and, since he had failed at that, he came to live in a little house in Sac Prairie and from there he conducted a small mail-order book business principally in books for children, which seemed an eminently fitting compromise between his hopes and the realities he had had to face.

His conversations with the birds, which were often augmented by long monologues which amounted to conversations with himself as he walked along the village streets, gave him the unjust reputation of being mildly deranged, when in fact he exhibited no symptoms but those of a man too much alone and perhaps not quite resigned to loneliness. Perhaps his conversations with the birds were his compromise with a reality which cannot have been pleasant; he had a gentle disposition, and no doubt the birds of the village seemed to him much less formidable than its mammals.

* * * * *

Nothing so inspires a sense of the mystery of beauty as the soaring aloft of hawks, floating in the blue above village or prairie, motionless dark crosses with sometimes the fanning up of russet in a sheen off tails in the sunlight. The hawk in its effortless grace, its matchless skill, makes a pattern of beauty against sky or cloud, where it floats upon the immeasurable dome of heaven, where it glides darkly among the trees reaching skyward, it alone never a part of branches, but always a bird of the spaces above.

What is implicit in a soaring hawk, or indeed in all hawk flights, is a supreme sense of his solitude. The hawk is a solitary bird, solitude is its essential nature, and the few occasions when hawks flock together in the migratory seasons are uncommon. Here under the summer heaven, the hawk vaunts its solitude for all to see, with an aloofness, a sense of being withdrawn, even while being an integral part of day.

I wonder often what it is about hawks that strikes the note of kinship with which I am always moved at sight of them, a feeling amounting almost to a conviction of sharing the bird's solitude as well as his ecstasy in flight, which somehow enables me to float aloft while I am prone on a hilltop, watching a hawk ride air currents invisible to any human eye, remote in heaven. Surely this bird is master of all it surveys! Surely it is as much king of this domain as its majesty implies!

It soars, it floats, it circles, turns, vaults, dives; it makes all sky and cloud, all wind and air, all earth its own. The hawk which thus for these halcyon summer hours belongs to me, also claims me for its own without more than a cursory awareness of my existence. The keen, discerning eye takes in heaven and earth, scans ground and water, and knows the habitants of that upper air—the osprey and the swallows, hardly more, for all others are below its range.

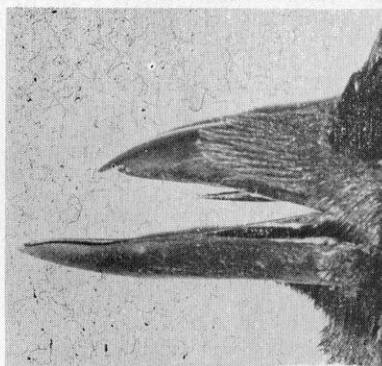
Its scream, its high **kee-yaw**, drifts down the slopes of heaven from time to time, its shadow crosses the slopes, the plain, the water, so small a cross of darkness on the land, so small a mark of darkness in the sky. Can one doubt that this is his world, that all within the orbit of its eye represents its own domain? Here is majesty, here is a rare beauty which has within it all the lost beauty of the wilderness that was America. Sauk City, Wisconsin.

The Students' Page . . .

By MRS. C. R. DECKER, Jr.

While in Douglas County recently, Charles Decker, a student of birds, saw many large black-looking birds circling continuously over a particular spot. He stopped his car and got out to investigate. It was a lovely day with strong southwesterly winds and piles of cumulus clouds as he stumbled across a rough field newly planted with young Norway pine. At the edge of the jack pine woods he found a deer. It had been hit by a car but was able to go to the woods where it fell and died. More birds rose as he came nearer, cawing, and croaking at his intrusion.

Apparently, both the sight and smell of carrion (polite name for a dead animal) brought the birds to it. Probably some crow found it first, and told all the others about it, until finally the tremendous number of 60 birds had gathered. The crows were the smallest (20 inches) and could be easily distinguished from the larger ravens (21-28 inches). The ravens' tails appeared to be more rounded, almost wedge-shaped, and shaggy feathers could be seen on their throats. Largest of all were the four tur-



SYD HERMAN

FREAK BILL OF CROW
APPARENTLY THE UPPER MANDIBLE FAILED
TO GROW ITS FULL LENGTH

key vultures, with wing spreads of six feet. As they soared they opened their primary feathers to control the air stream, and set their wings high, like the hands on the clock at ten minutes of two. Their tails were held like a folded fan, and were rarely used in maneuvering even though the birds had to shift and balance in the strong wind.

Charles drove back to get me so that I could see the scavengers, but they were too frightened; and only a few came back when we were there.

The three species described belong to Nature's sanitation depart-

ment, and perform a service which is needed to keep the country neat and tidy. Ravens usually stay far to the north, but crows migrate and settle for the winter in flocks of 1000 or more in some secluded woods. Vultures migrate, too, for we saw a few last fall when favorable winds helped them to make the long journey southward. Cedar Grove, in Washington County, is a good place to observe them if you are lucky enough to be there on the day when they come through.

BOOK REVIEWS

THE SANDHILL CRANES. By Lawrence H. Walkinshaw, Cranbrook Institute of Science, 1949. 202 pp. \$3.50.

This book is a remarkable collection of information on a bird that has been long admired but little known. That the field work resulting in this volume was done as a hobby by a practicing dentist should make many professional ornithologists hang their heads. Mr. Walkinshaw traveled more than 70 thousand miles and spent 17 years studying the sandhill cranes on all parts of their North American range. His data are specific and voluminous, covering practically all phases of crane life-history and distribution. The amount of information is so great, however, that many chapters would be more readable if data were put in tables instead of listed at length in the text. This is especially true of the chapter on nesting.

Approximately the last one-third of the book is devoted to photographs, a key to cranes of the world, distribution records of sandhill cranes, and an index. Of special interest is the information on cranes in Wisconsin that is scattered throughout the text.

The author concludes that sandhill cranes have been increasing slightly during the last 10 or 15 years, but if their future is to be assured, protection from drainage, poaching, predators, and uncontrolled marsh fires must be maintained, and a series of refuges established for the birds' shelter. This follows the much-repeated pattern of many other wildlife species; that man must now attempt to preserve and recreate environments that he has previously destroyed if cranes are to escape extinction.—James B. Hale.

AUDUBON'S BIRDS OF AMERICA. Introduction and captions by Ludlow Griscom. New York, 1950. 320 pp. \$2.95.

Here is another of the numerous editions of bird portraits by John James Audubon. This time the volume is described on its dust jacket as a "handy-sized popular edition." It contains 288 reproductions of our better-known birds from the 435 plates in Audubon's original elephant folio. They are presented in A. O. U. checklist order. The paintings have been reduced to approximately 4 inches by 5½ inches in size, and the book is designed, according to Mr. Griscom, "... to bring a selection of Audubon's paintings within the reach of all, so that everyone, even high school students, can get a glimpse of his decorative artistry and genius." Unfortunately, Audubon's "artistry and genius" have been somewhat obscured by inconsistent color reproduction. The illustrations in the copy examined by this reviewer vary from excellent to downright poor. In general they are quite good, but many pages tend to be fuzzy; the browns and greens are apt to be too yellow, and the reds too rosy. As examples, plate 172 of the yellow-billed cuckoo and plate 286 of the song sparrow are so yellow as to be almost unrecognizable, while plate 88 of the ruffed grouse and plate 234 of the cedar waxwing have a fuzzy appearance due to ill-defined details. At the other end of the scale, plate 24 of the green heron and plate 227 of the brown thrasher are very good when compared with other and larger editions of Audubon's works. The color work can be called satisfactory for a book of this type, especially in the plates of the non-passerine species, but it cannot be called excellent.

Mr. Griscom's introduction comprises 15 well-written pages on such diverse topics as a biographical sketch of Audubon and his contributions to American ornithology, the effect of man's land use on bird habitats and numbers, the need for conserving rare species, the work of the National Audubon Society, and a description of the contents of this book. In addition he has added a brief sentence or two under each bird portrait on the range, size, and relative abundance of the species portrayed.

The entire volume, and particularly the introduction, should be easily understood by those with only a passing interest in birds or bird study, and it is obvious that this is the group of people for whom the book has been published.—James B. Hale.

THE 1950 MAY DAY COUNTS

By S. D. ROBBINS, JR.

Between May 10 and 21, over 75 bird enthusiasts took to the field for the annual May Day count. Eight counts were made in six areas—the same as in 1949—but last year's fine total of 209 species was eclipsed by this year's total of 214. Included were a number of rarities, such as the red-throated loon, western grebe, American and snowy egrets, willet, and Bell's vireo; and several late stragglers, such as rough-legged hawk, Canada goose, golden and ruby-crowned kinglets, junco, and tree sparrow.

Madison: May 21; 179 species. With 22 observers grouped in nine parties spending 210 man-hours afield, it is not so surprising that a record-breaking total of 179 species was recorded, even though the peak of the spring migration had already passed by. Yellow-bellied flycatchers were recorded by seven parties; Philadelphia vireos were noted in five areas. Other rarities included: Canada goose, canvas-back, American golden-eye, bald eagle, prairie chicken, king rail, golden plover, ruddy turnstone, white-rumped sandpiper, brown creeper, Bewick's wren, blue-headed and Bell's vireos, orange-crowned, black-throated blue, and Kentucky warblers, yellow-breasted chat, orchard oriole, Brewer's blackbird and pine siskin. The count covered Madison, Mazomanie, Sun Prairie, and other selected areas, all in Dane County.—Kumlien Club.

Milwaukee: May 21; 175 species. Such rarities as red-throated loon, horned and western grebes, American and snowy egrets, rough-legged hawk (very late!), pigeon hawk, king rail, golden plover, yellow-bellied, Acadian and olive-sided flycatchers, red-breasted nuthatch, brown creeper, hermit thrush, gnatcatcher, golden and ruby-crowned kinglets, blue-headed and Philadelphia vireos, prothonotary, blue-winged and orange-crowned warblers, were turned up by 17 observers who worked in five parties throughout the day. Again the results are surprisingly good, considering that the peak of migration had passed; the continued presence of kinglets, creepers and the rough-legged hawk are most unusual.—John Muir Club.

Milwaukee: May 16; 143 species. This count was taken under adverse weather conditions, the temperature being a cool 34° at the start, and reaching only 44° during the day; it was cloudy, with a cold north-east wind blowing. 17 observers covered selected spots within a radius of 25 miles around Milwaukee, and recorded horned and western grebes, Canada goose, gadwall, king rail, willet, Baird's sandpiper, sapsucker, red-breasted nuthatch, brown creeper, winter wren, hermit thrush, gnatcatcher, ruby-crowned kinglet, Philadelphia vireo, and junco.—Bird Group of Milwaukee City Club.

Green Bay: May 21; 136 species. Observers, divided into two parties, spent the day covering selected areas around Green Bay, in Brown and Kewaunee Counties. Highlights included ruddy turnstone, raven, Connecticut warbler and yellow-breasted chat.—Green Bay Bird Club.

Monroe: May 14; 133 species. An excellent count for a single observer. It was taken under favorable weather conditions, near the peak of the migration, with 14 hours spent in the field covering a representative portion of Green County. The best finds included duck hawk,

Baird's sandpiper, Forster's tern, olive-sided flycatcher, ruby-crowned kinglet, and a surprising tally of 26 Wilson's warblers.—Gordon Orians.

Watertown: May 13; 103 species. Two observers picked a good day to be in the field, and covered the city of Watertown and the area around Mud Lake. Their finds included Canada goose, canvas-back, American golden-eye, and prothonotary warbler.—John and Earl Danner.

Appleton: May 10; 91 species. It was sunny, fairly warm and windy for this count, taken by six observers spending ten hours afield together. Most of the good bird areas around Appleton were visited. Most notable were lingering sapsuckers, brown creeper, hermit thrush, golden and ruby-crowned kinglets, junco and tree sparrow.—Appleton Bird Club.

Appleton: May 17; 83 species. This count had the disadvantage of a late start, and rain until late in the morning; but the presence of horned grebe, Canada goose, American merganser, brown creeper and ruby-crowned kinglet—all late dates—were especially interesting. Six observers cooperated in the count.—Mrs. W. E. Rogers et al.

By The Wayside . . .

Ferruginous Rough-leg Seen at Monroe. On February 26, 1950, I observed an adult ferruginous rough-leg at close range. I watched him both sitting and flying for at least ten minutes. When I first observed it at a distance, I thought it was an American rough-leg (they have been numerous here this winter); but as it came closer I noticed that it was too light below to be one. Then I noticed the black "V" formed by the darkly feathered legs, and the light patches on the upper surface of the wings.—Gordon Orians, Monroe.

Screech Owl Loses Bout to Pigeon. One night this winter as Eagle Scouts Wayne Biesman and Wesley Mayer were returning from a boy scout meeting, they were startled by a bundle of feathers falling from the eaves of the high school to the pavement at their feet. Then by the aid of a nearby street light they watched a pigeon rise and flap his way back to the eaves. Stretched on the pavement, however, was a screech owl looking very much the worse for the encounter. The owl offered little resistance when Wayne picked it up and carried it home. The following morning the owl didn't look too healthy but it managed to eat several strips of fresh beef liver and to take a big drink of water. The next morning the owl was dead. The boys decided that there were too many feathers and not enough owl to be sure whether it had died from the fall or from an improper diet. No one will ever be sure whether hunger had caused the screech owl to attack a pigeon which was decidedly larger and heavier than it was, or whether it had met the pigeon accidentally while searching for a sparrow or a squab.—Landon B. Thomas, Edgerton.

An Early Chimney Swift Record Correlated with Weather. At about 5 p. m. on April 10, 1950, I observed four chimney swifts flying over the University campus in Madison, constituting the earliest record I have made in five years. Swifts were not observed again until May 3. It seems possible that this early record can be correlated with the weather events prevalent at that time. April 9 was cold with some snow and sleet. April

10 began as a cold overcast day with temperatures near freezing and by mid-morning an exceptionally heavy fog had settled in. A heavy rain-storm occurred around noon. This was caused by a mass of warm humid air moving in from the south and coming in contact with the colder air. By late afternoon the warm front had passed to the north, the skies had cleared and the temperature had risen to 58°. By late evening, however, a cold front moved in from the North, accompanied by heavy rain, and the temperature fell again to near freezing. It seems obvious that the swifts were carried in on the southerly winds accompanying the warm front, and then departed as the cold front advanced.—George Hall, Madison.

Swainson's Hawk Again Noted at Mazomanie. On the morning of April 27, 1950, just north of Mazomanie along an open meadow, I noticed a hawk gliding toward me. It looked interesting, because the wings were tilted slightly above horizontal. As the bird approached, it began to gain altitude and it passed almost directly overhead—quite low. Two features were especially noticeable: (1) the dark breast contrasted with light belly; and (2) a two-toned effect in the wings, with the wing-linings light and the flight feathers somewhat darker and dusky. The bird proceeded to fly away and gain altitude, circling in typical *buteo* fashion; soaring at a distance it displayed proportions similar to the red-tail (short tail) except that the wings were not so well rounded. This would seem to leave no doubt that the bird was a Swainson's hawk.—Sam Robbins, Mazomanie.

Snowy Owl Attacks a Rabbit. On February 14, 1950, Gordon Wisheart was driving along a highway in a milk truck not far from the town of Luxemburg. Suddenly he came upon a large snowy owl attacking a cottontail rabbit. The owl appeared to fly just over the rabbit and kept pounding him from time to time with his wings. The noise of the approaching truck frightened the owl, and he abandoned his attack on the unfortunate rabbit. The owl flew away and lit in a large elm tree nearby. The rabbit was so badly beaten that he was barely able to drag himself to a small culvert into which he crawled.

GEORGE HALL

—Edwin Cleary, De Pere.



NEST AND YOUNG OF
GOLDEN-WINGED WARBLER

House Wren Lacking Brawn Uses Brain. A house wren family resented it very much when I placed a feeder with sunflower seed too close to their house. The feeder was just outside a window and gave me an excellent chance to watch the cardinals feed their young, but it certainly upset the wren household. The parent wrens dive-bombed the cardinals from the time they arrived to feed until they left. After two days of this I was beginning to wonder just what to do. The wrens didn't wait. They discovered that their attack did not affect the cardinals more than to cause them to raise their crests occasionally. On the third day the wrens started carrying and scattering sunflower seeds all over the

yard. I let them keep this up for a day, to be sure that it was actually a plan that they were using, and not a fit of temper. That evening I moved the feeder and reflected on about as specialized a case of bird instinct(?) as I have ever witnessed.—Landon B. Thomas, Edgerton.

THE EARLY SPRING SEASON . . .

For the casual observer whose main interest is to note the earliest arrival of each migrant returning in the spring, the period from February through April was dull and disappointing. Those who get as big a thrill from birds lingering beyond their proper departure time, who study the correlation between weather conditions and bird migration, and seek some of the deeper secrets of bird distribution and migration, found the period immensely interesting.

Through January, southern Wisconsin had experienced a remarkably warm, dry winter. In February snow and colder weather moved in; the month was not abnormally cold, but it was real winter. Winter months in the northern part had been rather severe, but February seemed even more so, with heavy snows and plenty of sub-zero temperatures.

The first limited wave of early migrants moved into Wisconsin on March 5—pretty much on schedule—and by March 7 robins and red-wings were noted as far north as Appleton. Cold weather returned March 8, causing a noticeable southward movement of killdeer along Lake Michigan near Milwaukee. Thereafter, all over the state, bird arrivals became later and later. By the end of April, migration was still very much behind the times. The cause, of course, was continuing cold weather, as wave after wave of cold air masses from Arctic regions moved over the state. During much of the first half of April the weather bureau in Madison reported record-breaking low temperatures nearly every day. Such waves as there were, occasioned by temporary breaks in the cold, were not sufficiently long or pronounced to let migration “catch up” at any time—with one exception. On March 27, a flood of birds rushed in, most pronounced along Lake Michigan. A storm of great intensity developed over the Great Plains the previous day, and moved north-eastward, bringing strong southerly winds to much of the eastern half of the United States. The most outstanding ornithological feature of the storm was the amazing “influx” of hooded warblers in Ohio, Ontario, Illinois and Wisconsin—all north of the normal range, and over a month earlier than normal arrival could be expected. Wisconsin had four out of the 14 stragglers known to have turned up. The yellow rail in Madison, the phenomenally early dates for the ovenbird in Madison, and restart in Beaver Dam, are probably to be attributed to this storm, also.

By the end of April, the ornithological picture was strange, indeed. Most of the lakes, and some of the streams were still frozen in the North; ducks, that had ganged up on lakes in central and southern Wisconsin waiting for open water farther north, had only recently begun to move. A motorist in Ashland County wrote of seeing coot on the roads at night. No hawk flight of major proportions had been reported; either the biggest flights had escaped notice or else they were yet to take place. Rough-legged hawks, usually gone by early April, were common throughout April in many areas. Fox sparrows, rarely seen in the state at the end of

April, were just reaching a peak in northern Wisconsin, with a few still present farther south. Tree swallows and purple martins had come in good numbers, but suffered heavy losses in a late-April blizzard in the North. Many species that normally arrive in the South in April were sparsely represented, or totally absent. By the end of April no green heron, gnatcatcher, orange-crowned warbler, pine warbler or Grinnell's water-thrush had been reported; there had been only single records for spotted sandpiper, whip-poor-will, and palm warbler; two observations of grasshopper and Henslow's sparrow; three or four for the chimney swift, bank and rough winged swallows, and house wren. Towhees and white-throated sparrows, usually spread over southern and central Wisconsin by the end of April, had been reported only eight times each.

For all the lateness of the season, there were still a few unusually early dates. Many of the dates listed below would not be particularly noteworthy in a year of normal migration pattern, but stand out in a spring as late as this. A few of the early arrivals would be headliners any year.

A backward season like this demonstrates the value of keeping accurate arrival, peak and departure dates of even the common species. At first it may seem disappointing not to see the first chimney swift until some time in May, rather than the usual time in April; but when many fragments of information of this type are put together, a truer picture of the migration season is gained by all, and more light is thrown on the perplexing problems concerned with the distribution and migration of birds.

Loon: A total of 31 seen in Jefferson County, Apr. 2 (S. P. Jones).

Red-throated Loon: Milwaukee, Apr. 20 (Mrs. F. L. Larkin).

Horned Grebe: The main migration was very late. An early straggler in Milwaukee, Mar. 26 (Mrs. Balsom), was followed by six scattered April records, but the peak was yet to come.

White Pelican: Nine at Menominee, Apr. 20 (Helmer Mattison).

Double-crested Cormorant: Flock of seven noted at Madison, Mar. 24 (Robert Nero). Earliest date on record.

Great Blue Heron: Wintering bird in Rock County, Feb. 16 (Bachay-Neustadter). Migrants at Oconto on Mar. 26 (Carl Richter), and at Marinette on Mar. 27 (Richardson), are fairly early for the north-east section of the state.

American Egret: One found dead in Milwaukee, Apr. 14 (C. P. Frister).

Black-crowned Night Heron: One at Green Bay, Apr. 7 (Ed Paulson), is early for that region.

American Bittern: Arrived in Madison, Mar. 25 (Mrs. Walker). Ties earliest date on record.

Canada Goose: First flocks came with the first early push in March, with one flock of 18 reaching Vilas County on Mar. 9 (B. H. Popov). During the second week in April 25,000 were estimated at Horicon (Wayne Truax), and 15,000 in Jefferson County (Paul Kennedy).

White-fronted Goose: Two in Racine County, Mar. 9 (R. S. Ellarson).

Snow Goose: An unusual number of spring reports: seen first in Racine County, Mar. 9 (R. S. Ellarson), which is the earliest date on

record; then at Horicon on Mar. 13, and in at least 18 other localities thereafter.

Blue Goose: Noted in 15 areas during March and April; first in Racine County, Mar. 9 (R. S. Ellarson). Earliest date on record.

Whistling Swan: Good flight, well spread out over the state; flocks were reported seen in 23 counties this spring.

Green-winged Teal: Three wintering birds in Burnett County, Feb. 13 (N. R. Stone).

Shoveller: Early arrival in Madison, Mar. 12 (R. T. Brown et al).

Wood Duck: First reported in Green Bay, Mar. 19 (Ed Cleary).

Canvas-back: Apparently a heavy flight.

Lesser Scaup Duck: Early straggler at Madison, Feb. 26 (Fred Greeley and George Hall). Flight as a whole seemed to be down somewhat.

Old-squaw: Injured bird found at Superior on Apr. 28, died two days later (Mrs. Mabelle Gates).

White-winged Scoter: Milwaukee, Mar. 26-Apr. 2 (Mrs. A. P. Balsom).

Hooded Merganser: Three in Dane County, Jan. 28 (R. A. Hunt).

Turkey Vulture: One at Janesville, Mar. 4 (C. Southwick); one at Prairie du Sac, Mar. 17 (George Becker); one in Waupaca County, Mar. 29 (F. H. King); one shot in Columbia County, Apr. 6 (fide M. J. Fradette); two in Waukesha County, Apr. 16 (S. P. Jones); one at Loganville, Apr. 26 (Harold Kruse).

Goshawk: Noted on Apr. 23 at Madison (Alan Keitt et al) and at Green Bay (Ed Cleary-Ed Paulson).

Red-shouldered Hawk: Migrants arriving in central Wisconsin were noted at Babcock on Mar. 9 (Wallace Grange), Kiel on March 10 (Myron Reichwaldt), and Balsam Lake on March 11 (Mrs. Henry Spencer).

Broad-winged Hawk: Early migrant noted among limited flight of red-tails and red-shoulders over Mazomanie on Mar. 27 (Sam Robbins).

Swainson's Hawk: One at Mazomanie, Apr. 27 and 28 (Sam Robbins). See "By the Wayside" column.

Rough-legged Hawk: Remarkably numerous in April; still to be seen in Milwaukee on Apr. 29 (Mrs. A. P. Balsom), and at Poynette on April 30 (H. A. Winkler), and at several other locations into May.

Ferrugineous Rough-leg: One in typical adult plumage studied near Monroe, Feb. 26 (Gordon Orians). See "By the Wayside" column.

Duck Hawk: Madison, Mar. 31 (Fred Ryser); Waukesha, Apr. 14 (S. P. Jones).

Pigeon Hawk: Dane County, Mar. 24 (R. A. Hunt-Robert Nero); Cedar Grove, Apr. 7 (Gordon Orians et al); Oshkosh, Apr. 7 (Mrs. Glen Fisher); St. Croix Falls, Apr. 15 (L. Heissohn); Babcock, Apr. 26 and 28 (Wallace Grange); Milwaukee, Apr. 27 (Mrs. Balsom-Mrs. Nunnemacher).

Hungarian Partridge: This species is spreading out more and more in southern and central Wisconsin. One was seen near Middleton, Feb. 21 (John Wilde); flock of 37 noted near Verona, Feb. 26 (Gene Whitehead); also noted by Wisconsin Conversation Department personnel in Lafayette, Eau Claire and Portage Counties.

Sandhill Crane: Wallace Grange reports an increase in population around Babcock, with first arrivals noted on Mar. 28. There was also a surprising number of migration records from other areas: two at Mazo-

manie, Mar. 31 (Sam Robbins); ten at Horicon on Apr. 1, with a peak of 34 on Apr. 7, and one on Apr. 9 (Lloyd Gunther); two in Jefferson County, Apr. 2 (Marilyn Haas); 16 at Waukesha, Apr. 7 (S. P. Jones); Green Lake County, Apr. 20 (Harold Shine); Polk County, Apr. 29 (L. Heinsohn).

Virginia Rail: One in Rock County, Apr. 13 (G. H. Sherman); also noted at Babcock, Apr. 25 (Wallace Grange).

Sora: First noted in Rock County, Apr. 6 (G. H. Sherman).

Yellow Rail: A straggler probably carried north by the storm of Mar. 27 was found dead in Madison on Mar. 29 (D. H. Pimlott). Very rare here.

Florida Gallinule: Early arrivals noted in Rock County, Apr. 13 (G. H. Sherman), and at Horicon, Apr. 22 (Ralph Hopkins).

Golden Plover: Green County, Apr. 23 (Gordon Orians).

Woodcock: Had reached Two Rivers by Mar. 28 (Mrs. Winnifred Smith), and St. Croix Falls by Mar. 30 (L. Heinsohn).

Wilson's Snipe: Winter birds found in Dane County on Feb. 3 (Harold Steinke) and Feb. 5 (D. Grether). One noted in Waupaca County, Mar. 11 (Sid Miller), probably wintered nearby.

Pectoral Sandpiper: Reasonably early birds reported from Dane County on Apr. 17 (Mrs. R. A. Walker), and Green County on Apr. 18 (Gordon Orians).

Wilson's Phalarope: Early bird noted in Mazomanie, Apr. 24 (Sam Robbins).

Franklin's Gull: An adult was carefully observed near Portage, Apr. 13 (John Emlen et al).

Bonaparte's Gull: More than the usual number of records away from Lakes Michigan and Winnebago; one near Monroe, Mar. 26 (Gordon Orians); Delavan, Apr. 15 (Mrs. Leta McMaster); noted in two localities in Dane County from Apr. 9 into May (George Hall et al).

Forster's Tern: Three at Horicon, Apr. 19 (R. S. Dorney). Earliest date on record. A flock of more than 30 terns was observed at Fond du Lac on Apr. 22 (W. E. Scott-Sam Robbins); all that could be seen well enough for positive identification were of this species, and the others were assumed to be the same; this is an unusually large concentration. Also noted in Madison, Apr. 25 (Sam Robbins).

Common Tern: First noted at Green Bay, Apr. 24 (Ed Cleary).

Caspian Tern: One at Milwaukee, Apr. 11 (Mrs. F. L. Larkin-Mary Donald), is the earliest date on record. Another early arrival noted at Two Rivers, Apr. 16 (Mrs. Winnifred Smith).

Black Tern: First at Horicon, Apr. 24 (Harold Mathiak).

Mourning Dove: The following additional winter records have been reported: flock of 42 in Waterloo (A. W. Schultz); four in Babcock (Wallace Grange); 14 at Waukesha on Feb. 19 (S. P. Jones-C. E. Nelson); Green Lake County, Feb. 26 (A. J. Robinson).

Barn Owl: Madison, Mar. 18 (R. A. Hunt).

Great Horned Owl: Marked decrease in winter population at Babcock (Wallace Grange).

Snowy Owl: The last of the great winter flight were seen at Horicon, Apr. 23 (Ed Peartree); Oshkosh, Apr. 18 (fide J. H. Evans); Madison, Apr. 17 (fide Jack Kaspar); Milwaukee, Apr. 6 (Bersing-Zimmerman). At least

56 birds spread over 31 counties were reported during the entire winter season.

Long-eared Owl: Flock of seven in Green County, Feb. 4 (Gordon Orians); Sheboygan County, Feb. 12 (Harold Koopman); Oshkosh, Mar. 27 (Mrs. Glen Fisher); wintering birds in Madison were last seen on Apr. 1 (Bakken-Matel); those in Milwaukee were last noted on Apr. 12 (Mrs. Simmons).

Short-eared Owl: A remarkable concentration, known to be at least 18, and probably many more, was present in Kenosha County, Feb. 20 through Apr. 16 (fide Mrs. P. E. Miles).

Saw-whet Owl: One in Madison, Mar. 21 (R. S. Ellarson).

Whip-poor-will: One at Lake Geneva, Apr. 20 (Sarah Ruhl), is the only one reported for the period.

Chimney Swift: Early stragglers blown into Madison on April 10 (George Hall). Reported only twice thereafter in the state throughout the month.

Red-bellied Woodpecker: The bird wintering in Appleton remained through most of the period; a bird wintering in Babcock was last seen on Mar. 30 (Wallace Grange); one was found in Waukesha, Mar. 12 (S. P. Jones-C. E. Nelson); and one at Antigo Apr. 16 (Mrs. S. G. Spurgeon). All are in areas not usually frequented by this species.

Yellow-bellied Sapsucker: One in Madison, Feb. 9 (Jack Kaspar).

Phoebe: One in Babcock, Apr. 1 (Wallace Grange), is rather early for that region.

Least Flycatcher: Early bird seen in Green Bay, Apr. 29 (Ed Cleary).

Horned Lark: Observers taking pains to observe this species closely have remarked that the first migrants appearing in January and February are not yellowish and therefore probably the prairie horned lark. A. W. Schorger did not come across any in Dane County which he thought to be Northern until Feb. 19. F. H. King noted a flock of yellowish "Northerns" in Outagamie County on Apr. 19. With the added possibility of the Hoyt's subspecies not distinguishable in the field, it seems best for most observers to omit subspecific determination, except where birds of strikingly yellow face are encountered.

Tree Swallow: Noted on Mar. 26 in Appleton (Mrs. W. E. Rogers-Mrs. H. L. Playman); and on Mar. 27 in Waukesha County (Mrs. F. L. Larkin-Mary Donald), Monroe (Gordon Orians), and Madison (N. R. Barger).

Barn Swallow: Only a few scattered individuals had arrived by the end of the period, but one was found at Viroqua on Apr. 16 (Margaret Morse), and a few had reached Oconto and Marinette Counties by Apr. 29 (Carl Richter).

Purple Martin: Arrived on Mar. 26 in Madison (Robert Nero) and Appleton (Mrs. H. L. Playman-Mrs. W. E. Rogers); and on Apr. 1 in Rhinelander (R. G. Dery). In Phillips some 35 dead birds were found by Harold Olson and Laddie Rehak following a late April snowstorm; this storm covered most of northern Wisconsin, and doubtless inflicted heavy losses elsewhere.

Canada Jay: Noted off and on throughout the period in Vilas County (Fred Babcock); one in Douglas County, Apr. 26 (L. Heinsohn).

Blue Jay: Remarkably scarce in winter at Babcock, returning to more normal population in April (Wallace Grange).

Crow: Wintered farther north than usual, in Oconto County (Carl Richter), in Door County, (Harold Wilson), and more numerous in Wood County (Wallace Grange).

Hudsonian Chickadee: Ladysmith, Feb. 9 (W. S. Feeney).

Tufted Titmouse: Ten at a feeding tray in South Wayne, Feb. 4 (Mrs. Ethel Olson).

Red-breasted Nuthatch: A few more than usual, an aftermath of the heavy migration of last fall: one in Kiel, Feb. 7 (Myron Reichwaldt); one in Sheboygan County, Feb. 16 (Harold Koopman); a wintering bird left Viroqua on Mar. 5 (Margarette Morse); others noted during the period in Land O' Lakes (Fred Babcock), Mercer (Mrs. Herbert Sell), Madison (Blumenfeld), and Milwaukee (Mrs. A. P. Balsom).

Brown Creeper: One in Land O'Lakes, Feb. 2 (Fred Babcock), is far north.

House Wren: Arrived in Milwaukee on Apr. 21 (Mrs. F. L. Larkin), and in Rhineland on Apr. 29 (R. G. Dery); elsewhere arrivals were late.

Winter Wren: On Mar. 27 arrivals were noted in Milwaukee (Mrs. F. L. Larkin-Mary Donald), Monroe (Gordon Orians), and Babcock (Wallace Grange).

Bewick's Wren: Reedsburg, Mar. 30 (Ethel A. Nott); Madison, Apr. 8 (Jim Zimmerman); Loganville, Apr. 17 (Harold Kruse).

Carolina Wren: Milwaukee, Apr. 21 (Mrs. Balsom-Mrs. Nunnemacher).

Prairie Marsh Wren: Madison, Apr. 28 (Jack Kaspar). Early.

Short-billed Marsh Wren: Green Bay, Apr. 23 (Ed Paulson-Ed Cleary). Earliest date on record.

Mockingbird: The wintering bird in Milwaukee was still present on Apr. 27 (Mrs. Balsom-Mrs. Nunnemacher).

Catbird: Strangely enough, the only record of the period came from a northern location: Rhineland, Apr. 27 (R. G. Dery).

Brown Thrasher: A winter bird was at a feeding station in Kenosha until Feb. 15 (Mrs. Schaefer); another turned up in Milwaukee, Feb. 4 (Alvin Throne).

Robin: A number of stray birds turned up in February, previous to the early March flight: one at Merrill early in February (Raymond Rehwinkel); one at Oconomowoc, Feb. 2-12 (Ed Peartree); Baraboo, Feb. 11 (Terbilcox); Green Bay, Feb. 17 (Mrs. Andrew Weber); Horicon, Feb. 27 (Harold Mathiak); Plymouth, Feb. 27 (Harold Koopman).

Wood Thrush: Early birds in Burnett County, Apr. 27 (N. R. Stone); and in Green Bay, Apr. 29 (Ed Paulson).

Hermit Thrush: Good numbers reported, especially in northern sections where birds were hard up for food after the late April snowstorm. A partially albino was seen in Kenosha, Apr. 23 (Mrs. Howard Higgins).

Olive-backed Thrush: Early migrants in Oshkosh, Apr. 23 (Mrs. Glen Fisher); and in St. Croix Falls, Apr. 30 (L. Heinsohn).

Gray-cheeked Thrush: An extremely early straggler in Green Bay, Apr. 11 (Ed Cleary). Earliest date on record. One in St. Croix Falls, Apr. 30 (L. Heinsohn), is also early.

Willow Thrush: The only bird of the period turned up where it might be least expected: in Land O' Lakes on Apr. 26 (Fred Babcock).

While not a record-breaking date, it is remarkable for that section of the state.

Ruby-crowned Kinglet: First in Octonto, Mar. 27 (Carl Richter).

Bohemian Waxwing: Flock of 50 at Green Bay, Feb. 3 (Mrs. Andrew Weber); 15 in DePere, Feb. 4 (Ed Cleary); Merrill, mid-February (J. W. Peroutky).

Northern Shrike: Two in Fond du Lac County, Feb. 3 (George Henseler); Wausau, Feb. 12 (H. W. Levi); Milwaukee, Feb. 19 (Dr. Hehn-Mrs. Balsom); one at Superior, Feb. 27 (Mrs. Mabelle Gates); Ozaukee County, Mar. 5 (C. E. Nelson-S. P. Jones); Birnamwood, Mar. 6 (Mary Staeger); Mazomanie, Mar. 9 (Sam Robbins); Waukesha, Mar. 18 (S. P. Jones); Monroe, Mar. 18 (Gordon Orians). For the entire winter, 44 birds were reported from 20 counties.

Blue-headed Vireo: Early straggler in Madison, Apr. 17 (P. H. Greeley). Earliest date on record.

Black and White Warbler: Another straggler in Kenosha, Apr. 17 (Mrs. Howard Higgins). No others reported until May.

Ovenbird: One turned up in Madison, Mar. 31 (Robert Nero). Earliest date on record.

Louisiana Water-thrush: Only one reported for the period: Devil's Lake, Sauk County, Apr. 23 (Sam Robbins).

Hooded Warbler: This species is rare in Wisconsin any time, but when it does occur, it is usually from mid-May to early June. The presence of four birds six weeks earlier than this is unprecedented. A male was discovered in Madison on Mar. 27 by Jim Zimmerman, and seen by many observers through Mar. 31; a female was found in Milwaukee on Mar. 27 by Mary Donald and Mrs. F. L. Larkin, seen by others for the next two days; a male was found dead at Two Rivers, Mar. 29 (John Kraupa); another male was found dead in Oostburg, Apr. 8, and given to the Milwaukee Public Museum (A. P. Maul).

Redstart: A male straggler was sighted in Beaver Dam, Apr. 7 (Dick Pillmore). Not a record-breaker, but a remarkable record.

Eastern Meadowlark: A few February records precede the March migration: four in Fond du Lac County, Feb. 3 (George Henseler); nine in Dane County, Feb. 19 (A. W. Schorger); Milton, Feb. 21 (Chester Skelly). One in Appleton on Mar. 2 (Mrs. Frank Blick) must have wintered nearby.

Western Meadowlark: Two in Dane County, Feb. 19 (A. W. Schorger).

Yellow-headed Blackbird: Considering the lateness of most birds, it is surprising that this species arrived on time or a little early in several locations: Apr. 15 in Dane County (George Hall) and Oshkosh (J. H. Evans), and Apr. 16 in Horicon (S. P. Jones-C. E. Nelson).

Red-wing: Add to the list of wintering birds: three in Onalaska (Alvin Peterson).

Rusty Blackbird: Milton, Feb. 17 (Chester Skelly).

Brewer's Blackbird: Arrived on Mar. 27 in Monroe (Gordon Orians) and Milwaukee (Mary Donald-Mrs. F. L. Larkin).

Bronzed Grackle: One in Milwaukee, Feb. 10 (C. P. Frister); early migrant in Madison, Mar. 2 (John Emlen).

Cardinal: Remarkable concentration of 50 in one morning at South Wayne, Feb. 5 (Mrs. Lola Welch-Mrs. Ethel Olson). Noted during the winter at Antigo (Mrs. S. G. Spurgeon).

Evening Grosbeak: The heavy flight of the winter increased in tempo, if anything, during the period. Late in March and early in April flocks appeared where they hadn't been seen previously, or where they had been absent for a month or two, and many observers reported good numbers in April. By the end of the month birds were still to be seen in Superior, Merrill, Two Rivers, Appleton, St. Croix Falls, Reedsburg, Mazomanie, Madison and Milwaukee. Flocks estimated at 600 were found in the Town of Webster, Burnett County, on Apr. 25 (L. Heinsohn).

Purple Finch: Small flocks wintered in Mt. Calvary, Fond du Lac County (George Henseler), and in Milton (Chester Skelly). Scattered individuals elsewhere.

Pine Grosbeak: Only report: five at Merrill, Mar. 12 (J. W. Peroutky).

Redpoll: Cedar Grove, Feb. 5 (Helmuth Mueller-Dan Berger); Madison, Feb. 7 through mid-March (John Emlen); Milwaukee, Feb. 17 (Mrs. F. L. Larkin); Appleton, Mar. 20 (Mrs. W. E. Rogers-Mrs. H. L. Playman); Madison, Apr. 16 (Mrs. R. A. Walker-Alan Keitt); Green Bay, Apr. 23 (Ed Paulson).

Pine Siskin: Six in Milwaukee, Feb. 26 (Mrs. F. L. Larkin); Mazomanie, Apr. 3 (Sam Robbins); Madison, Apr. 4 (William Roark).

Towhee: One would never guess the normal migration pattern of this species from the 1950 records at hand! Single individuals turned up in Milwaukee on Mar. 4 (Mrs. F. L. Larkin), and in Kenosha on Mar. 5 (Mrs. Howard Higgins); early migrants were noted in Milwaukee on Mar. 26 (Mrs. A. P. Balsom), in Two Rivers on Mar. 27 (Mrs. Winnifred Smith), and in Madison on Mar. 28 (Jim Zimmerman). These early birds soon disappeared, and there was hardly another one seen until May.

Savannah Sparrow: Fairly early arrivals in Madison on Mar. 31 (Mrs. R. A. Walker), in Reedsburg on Apr. 7 (Ethel A. Nott), and in Oshkosh on Apr. 7 (J. H. Evans).

Grasshopper Sparrow: Madison, Apr. 16 (George Hall-Ed Prins). Earliest date on record.

Cassiar Junco: 15 birds of this race were trapped and banded from January on at the J. J. Hickey station in Madison.

Chipping Sparrow: Several early dates for their respective regions: Milton, Mar. 29 (Mrs. Melva Maxson); Balsam Lake, Apr. 8 (Mrs. Henry Spencer); Burnett County, Apr. 17 (N. R. Stone); Rhinelander, Apr. 18 (R. G. Dery).

Clay-colored Sparrow: First, Green Bay, Apr. 29 (Ed Cleary).

Fox Sparrow: Arrived early and stayed late in Madison: Mar. 8 through Apr. 30 (J. J. Hickey); also arrived early in Milton on Mar. 10 (Chester Skelly), and in Milwaukee on Mar. 12 (Mrs. D'Arragon). The last days of April were just bringing a peak to northern Wisconsin, with a few still left farther south.

Swamp Sparrow: Early bird in Mazomanie, Mar. 28 (Sam Robbins).

Snow Bunting: Lingered late in Land O'Lakes, Apr. 22 (Mrs. P. E. Miles); and in Oshkosh, Apr. 30 (Mrs. Glen Fisher). Latest date on record.

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