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CLIFF SWALLOW COLONY

PHOTO BY  
WISCONSIN CONSERVATION DEPARTMENT



# *The* PASSENGER PIGEON

A Magazine of Wisconsin Bird Study

*Published Quarterly By*

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WINTER ISSUE  
VOL. XXV NO. 4



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**COVER PHOTO:** These swallows have increased and spread into cliffless areas by nesting on buildings. Some colonies have over a thousand birds. They can be encouraged to nest by nailing a strip of wood just below the eaves. The eggs of the Cliff Swallow are creamy to pinkish-white, variously spotted with brown.

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# Range of the Red-bellied Woodpecker in Wisconsin: 1963

By FRED and FRAN HAMERSTROM

WSO Research Committee

There are many creatures which have altered their ranges within historic times. Some, like the white man, the Starling, and the Pheasant have come from other continents and have spread from coast to coast—to the detriment of others, such as the Indian, the Bluebird, and the Prairie Chicken.

Other species are extending their ranges in a manner which is far more subtle, innocuous and—as is usual of native species—difficult to measure. The Cardinal and the opossum, for example, are infiltrating Wisconsin from the south. It has been suspected that the Red-bellied Woodpecker (*Centurus carolinus*) has also extended its range northward in Wisconsin. Fortunately, in 1950 Arnold J. Peterson (1951 *Passenger Pigeon* 51-54) conducted an excellent population study of the Red-bellied Woodpecker in Wisconsin, including substantial historical material. He received completed questionnaires from 85 cooperators in 53 counties.

The present study is designed primarily to learn whether or not the Red-belly is still spreading northward, and is based on the records of 128 cooperators from 51 counties. Most of these records are from members of WSO who replied to the questionnaire of the Society's research committee in *The Passenger Pigeon*. At least 22 were in response to an appeal in *Wisconsin Tales and Trails*. It gives us pleasure to acknowledge these records, so generously given.

## Range Extension and the Tension Zone

The new records have been mapped to show the distribution of the Red-bellied Woodpecker as reported during the survey of 1963 (Figure 1). The map also shows an ecological feature of prime importance in the distribution of many species of both plants and animals in Wisconsin, namely the "tension zone" (Curtis, 1959:20). As explained by Curtis, Wisconsin's flora is not distributed at random over the state as a whole. Rather, there are two main groupings of plants, the prairie-forest province to the southwest and the northern hardwoods province to the northeast, each with its characteristic plants. A rather narrow band separates the two provinces and contains plants from each: this is the tension zone, in which the plants of neither province are in full control.

Comparing the 1963 distribution map with that of 1950, it appears that Peterson's prediction was well justified: "The northward extent of the breeding range coincides closely with the 'tension zone.' . . . The northernmost extent of the Red-bellied Woodpecker, like that of the southern hardwoods is commonly in low river-bottom forests. . . . Since records indicate that the species has not extended its range in the eastern half of the state in the past seventy years, it seems probable that its breeding range is limited by the extent of the southern hardwood species



with which it is most commonly associated in southern and western Wisconsin. This would suggest that little further extension of range can be expected anywhere in the state."

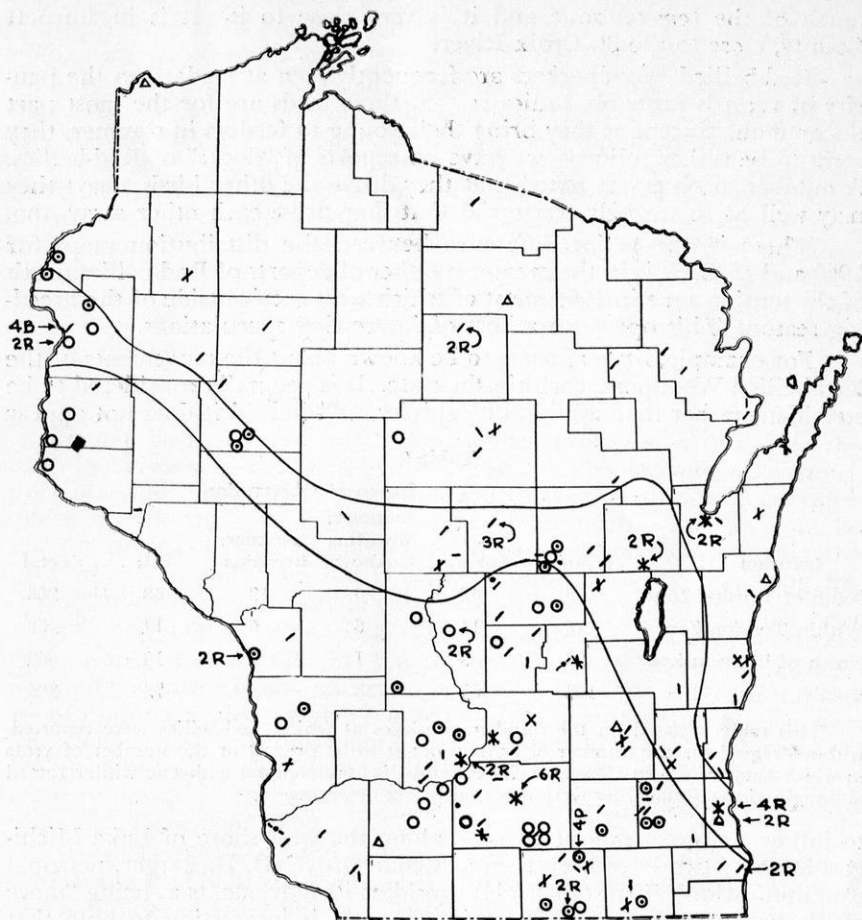
The breeding records which have been sent in during the current study, and which are new since Peterson's work, are summarized in Table 1. In general, they tend to fill in the known range. As 128 cooperators turned up only 23 previously unknown breeding locations, it hardly seems likely that the Red-bellied Woodpecker is becoming appreciably more

Table 1\*

County	Locality	Date	Observation	Observer
Burnett	Grantsburg	1957	Nested by St. Croix River	N. R. Stone
Burnett	Anderson Twp.	1962	Two young seen	Mrs. R. F. Caldwell
Chippewa	Anson Twp.	ca. 1956	Young brought to feeder	Mrs. Ed Reifenauer
Chippewa	Hallie Twp.	1962	Nested	Mr. and Mrs. G. W. Sharkey
Dane	Near Blue Mounds	1962	Young seen	Wing MacLean
Green Lake	Near Green Lake	1962	Raised two young	Mrs. C. J. Manning
Jefferson	Near Ft. Atkinson	1953	Nested	Mrs. Elizabeth Degner
Juneau	Union Center	1940-1960	Nested every year	R. K. Searles
La Crosse	La Crosse	1958	Nested	Isabel McDonald
Polk	Luck	1958, 1959	Young seen	Mrs. Gertrude Pedersen
Rock	Beloit	1959	Nested	Frances Glenn Bernice Andrews
Rock	Newark Twp.	1961, 1962	Young seen	Mrs. Gyda Mahlum
Sauk	Baraboo	1956	Two young "every summer"	Mrs. Arthur Bassett
Sauk	Rock Springs	1962	Young brought to feeder	Mrs. Emil Mueller
Walworth	Williams Bay	ca. 1959	Young seen	Mrs. W. W. Morgan
Waukesha	Genesee Twp.	1962	One young brought to feeder	Mrs. Paul Hoffman
Waukesha	Northwest corner	1961	Young seen	Ed Peartree
Waukesha	Ottawa Twp.	1961	Nest hole found; male brought one young to suet	Mrs. C. E. Nelson, Jr.
Waupaca	Waupaca†	1935	Young brought to feeder	Florence Peterson
Waupaca	West side Long Lake	1950	Nested; two broods	Florence Peterson
Waupaca	Stratton Lake	1956	Young brought to feeder	Florence Peterson
Waupaca	Stratton Lake	1962	Two nesting pairs	Florence Peterson
Waushara	Plainfield Twp.	1961	Two broods raised	Mr. and Mrs. Mel Chamberlain
Waushara	Leon Twp.	1962	Young seen	Mr. and Mrs. R. B. Locke

\*Three breeding records were reported both to Peterson and to us. Since they were published by Peterson, details are not given here. They are: Grant County, N. R. Barger and S. D. Robbins; Rock County, Melva Maxson; and Vernon County, Margarette E. Morse.

†Peterson also lists young seen at Waupaca, but by a different observer.



# LEGEND

- Breeding record
- Present year-long, but no record of breeding
- ⊙ Breeding and present year-long
- / Winter record
- \ Spring record
- R Number of reporters who contributed to a composite record (may be two or more identical records, or a composite built up of several less complete records)
- Summer record, not known to breed
- | Fall record
- △ Not seen
- B Birds
- P Pairs

The tension zone lies between the two curved lines

Figure 1. Distribution of the Red-bellied Woodpecker in 1963.

common in the state. Even more striking, only one of the new records is north of the tension zone and it is very close to it. It is in Burnett County, close to the St. Croix River.

Red-bellied Woodpeckers are frequently seen at feeders, so the paucity of records probably indicates that these birds are for the most part uncommon. Except as they bring their young to feeders in summer, they seem to be rather solitary—we have no reports of “flocks” of Red-bellies. A number of observers noted that they drove the other birds away; they may well be so strongly territorial that they drive each other away, too.

There is one major difference between the distribution maps for 1950 and 1953. It is in the greater number of reports of Red-bellies north of the tension zone in 1963, most of which were seen outside of the breeding season. This opens up a host of interesting speculations.

For example, little appears to be known about the movements of the Red-bellied Woodpecker within the state. It is generally considered to be a resident rather than a migratory species, and indeed it does not appear

Table 2

Location	Winter	Spring	Season of Observation		Fall	Total
			Summer: Breeding Unknown	Summer: Breeding		
South of Tension Zone	68	42	26	19	48	203
Within Tension Zone	20	14	6	6	14	60
North of Tension Zone	21	9	1	1	10	42
Totals	109	65	33	26	72	305

This table is based on the number of places at which Red-bellies were reported, without regard for the number of birds thought to be present or the number of years in which they were seen. Madison, for example, is here credited with one winter record although winter Red-bellies were reported by six observers.

to follow the great migration path along the west shore of Lake Michigan for only two have been seen at Cedar Grove (D. D. Berger, personal communication). Bent (1939:244) considers its movements as being “more of irregular wanderings” than migration. It is interesting to note that of 42 records which are clearly north of the tension zone in Wisconsin, only two (5%) are within the breeding season, while breeding season records inside the tension zone and south of it are 20% and 22%, respectively (Table 2). These figures suggest a northward movement in Wisconsin, with the birds most noticeable in winter in the north.

On the other hand, Wisconsin’s “big woods” lie mostly north of the tension zone, and nests would be very hard to find there. Perhaps a few Red-bellies are present year-long and breed there but are seen mainly in winter when they are more conspicuous. Or perhaps the northern Red-bellies are colonizers, continuously moving north from the established range of the species but not yet succeeding in breeding and so not extending the range farther. We will return to this idea later.

There is some evidence, both from Peterson’s study and this one, to suggest that Red-bellies have extended their range northward (particularly northward) in historic times. Why this should be so is not yet known. For some creatures there is at least a plausible explanation for



similar extensions of range. For example, the distribution of the opossum is not unlike that of the Red-bellied Woodpecker. It, too, has been extending its range northward in the state. About 1938, when we were living near Necedah, our neighbors reported monkeys breeding in the Yellow River bottoms. At first we thought they were simply fibbing, but no, they had noticed the long, prehensile tail and upon investigation this turned out to be the first valid opossum record so far north. The white man's corn probably helped the opossum to extend its range northward, but for the Red-bellied Woodpecker we cannot yet find an explanation. Both the opossum and the Red-belly undoubtedly benefit from the large number of good nesting holes in the southern hardwood type river-bottoms, but these have been there since pre-settlement days: there must be another factor which has caused the Red-bellied Woodpecker to move farther north.

### What Does the Future Hold?

It may be that there will be no further extension of range to the north in Wisconsin—that Red-bellies are so closely adapted to the southern hardwood forest (or some component of it) that they will never be able to invade the very different forests of the north. But it might be that the present halt is a delay rather than a permanent stop—that the birds which are now seen north of the tension zone are preparing the way for another wave of range extension still to come.

The Red-bellied Woodpecker may be developing a tougher strain in the north. Curtis (1959:21) has this to say about extension of range in plants: "... Darwinian natural selection will tend to increase the success of those individuals which happen to have preadaptations to the new conditions. Close breeding among these peripheral plants is more likely than outbreeding to the parent stock. In time, therefore, a variety of different strains may become more or less purified, with each strain adapted to the particular conditions. . . ."

Members of WSO could well continue to watch for such a development in the Red-bellied Woodpecker north of the tension zone. We can raise a number of questions: Are Red-bellies present in summer? Do they attempt to breed? Are nest sites the limiting factor? Or possibly food? Two things might be tried out. One would be to put out nest boxes, especially where birds have been seen at other seasons. We might not only increase this attractive species but also contribute data of scientific significance, if enough nest boxes are accepted to demonstrate that new colonies are being established. Another thing worth trying would be to continue feeding suet into the summer, particularly around our homes and gardens and, for the more adventurous, perhaps also where Red-bellies have been seen in the woods. One of the Red-belly's most striking and appealing characteristics is the habit of bringing the young to suet feeders in the summer. This trait might be used not only for the purpose of enjoying the birds themselves where they are known to occur, but for finding out where they are in the first place. Both nest boxes and summer feeders would, of course, be shots in the dark, but we haven't much to lose as some creature would be apt to use them anyway.

The most fruitful observation points would seem to be those places north the tension zone where Red-bellies have already been found but

where nesting is unknown. The challenge is all the greater as this is the part of the state in which the WSO itself is least well established. Perhaps the Red-bellied Woodpeckers and WSO can extend their ranges together!

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Plainfield, Wisconsin



### The war on insects

# THE ETERNAL BATTLE

## INSECT ATTRACTANTS

Through countless centuries—estimates run as high as 400 million years—insects have waged a struggle for survival. In this long and unimaginably competitive process of natural selection, insects have developed some supersensitive faculties to guide them to food and mates. Among the most important of these faculties is olfaction—using the sense of smell to detect chemical substances that are the source of attractive odors.

Some species have a sense of smell so keen that they can detect an attractant more than a mile away. Sometimes the attractant is so strong that insects are irresistibly drawn to it.

Now, after millions of generations, this keen sense may lead an insect to its doom instead of being a vital aid to the survival of the pest.

Already, the Agricultural Research Service and other scientists have developed several materials that attract insects. These materials were proved in 1956 and 1957, when attractants developed by ARS were combined with a pesticide to eradicate the Mediterranean fruit fly from more than 1,000 square miles in Florida.

In current attractant research, ARS is trying to develop specific control methods that greatly reduce or eliminate the need for insecticides and harm nothing except the target species.

The underlying advantage of this research is that attractants open the way to a multipronged attack on insect pests. Possibilities include attracting insects to traps, to lethal poisons, or to chemicals that sterilize them. Or females may be attracted to lay their eggs in places where the eggs will not hatch.

One of the most recent ARS accomplishments in attractant research was the use of the male annihilation technique to eradicate the oriental fruit fly from Rota, a Pacific island about 37 miles north of Guam.

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Reprinted from *Agricultural Research*, November, 1963, Vol. 12, No. 5. This magazine is published monthly by the Agricultural Research Service, U. S. Department of Agriculture, Washington, D. C. 20250.

Scientists use a strong, highly specific male attractant—methyl eugenol—to lure males to an insecticide. Within 5½ months, this combination killed all males, reproduction ceased, and the species disappeared.

The Rota experiment, which culminates more than 10 years of research, is one of many projects in the ARS search for strong chemical insect attractants.

Most scientists recognize three classes of chemical insect attractants—sex, food, and ovipositional. Sex lures generally attract males, ovipositional lures generally attract females to egg-laying places, and food lures may attract either or both sexes. A material is not considered a sex lure unless attracted insects react with sexual behavior. Both ovipositional and food lures are usually associated with a food source, but scientists distinguish between them: one induces egg-laying; the other, feeding.

Insect sex attractants probably are the most potent physiologically active compounds known. For example, the male American cockroach responds to about 30 molecules of the female lure, and gypsy moth males have responded from a quarter mile away.

The sex lure of some species cannot be obtained in sufficient quantity for field use unless it is synthesized, but this is not always necessary. Enough pink bollworm sex lure, for example, has been extracted directly from reared insects.

### Synthesis of Attractants

Scientists generally find it more difficult to identify the sources of food and ovipositional attractants than sources of sex attractants. Whole foodstuffs or natural materials from egg-laying sites generally lack strong and consistent attractancy. But scientists are overcoming some difficulties associated with natural whole materials with two other types of materials: extracts from natural material, and pure chemicals.

When attractancy is found in such natural materials as plant parts or fermenting foods, scientists try to obtain a strong attractant by extracting and purifying the attractant substance and—in some cases—producing it synthetically. ARS has extracted and tested at least 1,000 compounds from natural materials.

The search for chemical attractants may begin on a hit-or-miss basis. Of many chemicals tested, chemists may find only one with even a weak attractancy. Starting with the weak attractants, they try to synthesize new compounds having a similar chemical structure but a stronger attractant quality. ARS scientists, the first to use a chemical-synthesis program for finding insect lures, have synthesized about 6,500 compounds for testing on 15 species.

Detecting, extracting, purifying, chemically identifying, and synthesizing chemical insect attractants involve some of the most refined and sensitive techniques known to science. Synthesis is a stiff test of a chemist's skill and imagination—differences as subtle as spatial arrangement of the atoms in a molecule can greatly change a compound's attractant qualities.

But this painstaking research is paying off. The lure of the Mediterranean fruit fly alone is worth enough to pay for all ARS attractant research many times over. Lures are also available for the oriental fruit fly, melon fly, Japanese beetle, and European chafer.



ARS accomplishments include the chemical synthesis of two strong lures for the gypsy moth. One exactly duplicates the natural lure; the other is a more easily made, closely related compound. Chemists have identified the chemical structure of the American cockroach sex attractant and are now trying to synthesize it. Substances containing the sex lure of the pink bollworm, southern armyworm, and tobacco hornworm have been extracted, and chemists are trying to isolate the sex attractants in pure form and identify them. They have extracted lures from females of the banded cucumber beetle, corn earworm, cabbage looper, and housefly.

The outlook for finding more attractants is encouraging. New techniques have recently been developed to expedite this study; many of them apply electronics to chemistry. Scientists can now turn to such tools as gas chromatography, ultraviolet and infrared light, nuclear magnetic resonance, and mass spectrometry to separate and identify the infinitesimal amounts of chemicals in insects that give off the attractant odors.

## BACILLUS CONTROLS CORN BORER

Spores of a bacterium, *Bacillus thuringiensis*, may soon be used for control of first-brood European corn borers. This bacillus proved effective in field tests last year conducted at the corn borer research laboratory, Ankeny, Iowa. If results of 1963 field tests prove successful, ARS entomologists will recommend it as one of the controls for the European corn borer next year.

The bacillus is applied on the corn as a granular material. The granules fall on the leaves and then roll into the whorl of the corn. The European corn borer eggs are laid on the leaf; after hatching, the borers ingest the bacillus and its toxic crystals while feeding in the whorl. The insect is killed by a combined process of toxic action of the crystals and active bacterial invasion.

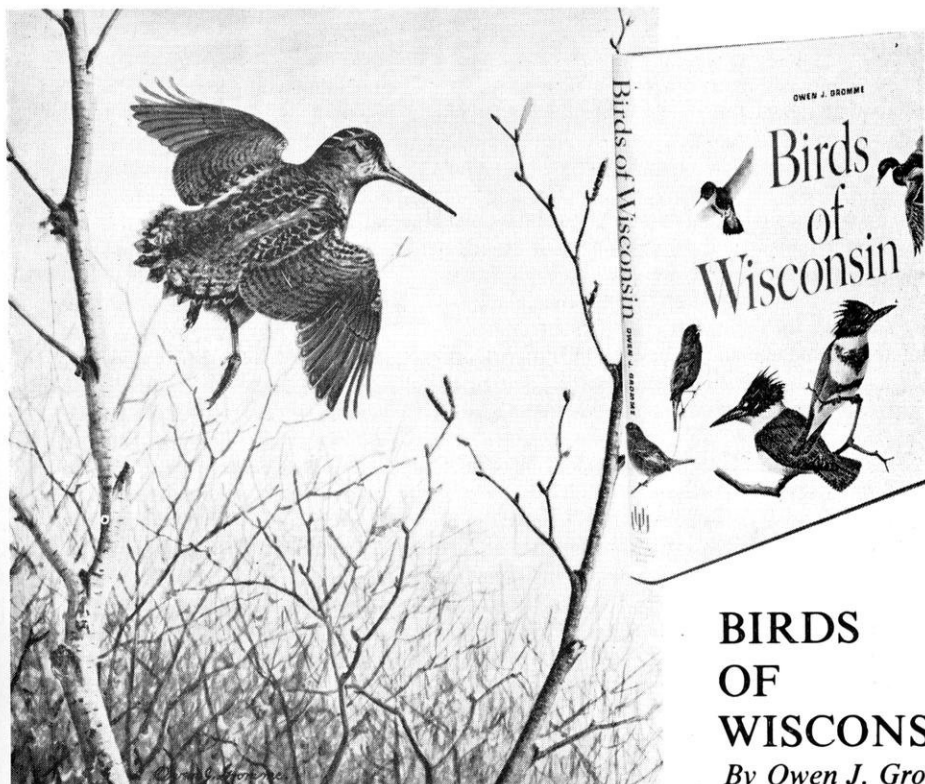
*B. thuringiensis* is one of the most versatile pathogens yet found in insect research. It kills more than 110 species of destructive insects, most of which belong to the order Lepidoptera (caterpillars), yet does not harm beneficial insects or other life.

The European corn borer, one of the costliest insect pests in the United States, was accidentally imported into this country, probably on broomcorn, more than 40 years ago and now infests most of the corn-growing areas. It destroyed more than 88 million bushels of corn and cost farmers nearly \$94 million in 1962.

The chief means of borer control now in use are resistant hybrids, destruction of the overwintering borer, and insecticides. Natural enemies, such as native and introduced parasites (flies and small wasps), lady beetles, Downy Woodpeckers and other birds attack the borer and play a part in reducing corn borer numbers, but they cannot be depended upon to reduce borer infestations to a level that would justify omitting other controls.



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# A Footnote on the Last Living Passenger Pigeon

By DEAN AMADON

In my rather limited personal contacts with the late Dr. Frank M. Chapman we never had occasion to mention Dr. R. W. Shufeldt. I was told by another, however, that Chapman had found the irascible Shufeldt the most difficult of all ornithologists known to him. The possible reasons are apparent in the biography of Shufeldt in Edgar Erskine Hume's excellent volume, "Ornithologists of the United States Army Medical Corps." Hume wrote: "Shufeldt's last years were embittered by real or imaginary slights and wrongs at the hands of 'unprincipled lawyers,' the 'Secretary of War,' the 'Attorney General of the United States,' the 'Maryland Court of Appeals,' etc. . . . I remember the old gentleman in his latter days, seeing him in his frequent visits to the Army Medical Museum and Army Medical Library. His eye still had the enthusiastic fire of his youth, albeit with something of the eccentric." (pp. 407, 411).

The following exchange of letters is preserved among Chapman's papers. At that time he was editor of **Bird-Lore** (now **Audubon Magazine**) which he had founded. Although Chapman's reply was perhaps not quite clear, he must have been surprised at the response it elicited from Shufeldt.

27th of November, 1914.

Frank M. Chapman, Esqr.,  
Editor BIRD LORE,  
American Museum of Natural History,  
New York City, N. Y.

Dear Mr. Chapman:

It fell to me to illustrate and describe the anatomy of the last Passenger Pigeon, and Dr. Stone has it for the January AUK. There are several plates with it, and the paper, as first submitted, had a colored plate of the head of the bird, which I photographically prepared direct from the dead specimen. For 1915 THE AUK will, unfortunately, be terribly hard up, and Dr. Stone tells me that it can not afford a single colored plate during the coming year.

If BIRD LORE can afford it, I thought perhaps you might like to publish this unique colored head of the last of all the passenger pigeons, made direct from the specimen. I could give a paragraph or so as to how it was made. It is a very pretty thing, and will make an attractive plate, which should be published in this country. It can be reproduced by the panchromatic process and be the exact counterpart of the original.

Yours very truly,

R. W. Shufeldt



Dr. R. W. Shufeldt  
3356 Eighteenth St.,  
Washington, D. C.

November 30, 1914

My dear Sir:—

I beg to acknowledge with thanks your kind offer of November 27, but I regret to say that Bird-Lore is not in a position to avail itself of this opportunity to illustrate the anatomy of the last Passenger Pigeon.

I thank you for bringing this to our attention, and am,

Yours very truly,  
Frank M. Chapman

Mr. Frank M. Chapman,  
Editor BIRD LORE,  
American Museum of Natural History,  
New York City, N. Y.

1st of December, 1914.

My dear Sir:

Your favor of the 30th ultimo at hand this morning. Its contents are quite a puzzle to me, as I have no recollection of offering BIRD LORE an article on the "anatomy of the last Passenger Pigeon," and have never contemplated anything of the kind. Indeed, I have no article on that subject at this time to place anywhere. It is true that Doctor Stone accepted, a couple of months ago, a paper of mine, giving the gross anatomy of that bird, and I have been assured by him that it will appear in the January AUK; but it would never occur to me to prepare such a contribution for BIRD LORE, as the fact has, somehow, become so firmly fixed in my head that that journal pays no attention to the structure of birds.

Thanking you for your letter, I beg to remain,

Yours very truly,  
R. W. Shufeldt

There is no mention of this colored photographic plate of the head of the last Passenger Pigeon in Shufeldt's article in the January, 1915, *Auk*, which bore the rather stately title, "Anatomical and other notes on the Passenger Pigeon (*Ectopistes migratorius*) Lately Living in the Cincinnati Zoological Gardens." The only photographs to illustrate that piece are some anatomical ones which Schorger in his excellent monograph "The Passenger Pigeon" states "do not even possess clarity to compensate for their gruesomeness" (p. 301), though I would not consider them quite as uninteresting as this would imply.

So far as I can learn, Schufeldt's photographically prepared colored plate of the head of this bird was never published. He had previously, however, published a black-and-white photograph of the same subject in the *Scientific American Supplement* for 1914, volume 78, page 253.

American Museum of Natural History  
New York 24, New York

Make Plans Now to Attend the  
25th ANNUAL CONVENTION AT MADISON  
ON MAY 22-24, 1964  
Turn to Page 150 for Details

# HOMING INSTINCTS IN SWALLOWS

By THOMAS H. NICHOLLS

## Introduction

The mystery of bird orientation and migration has proved to be an interesting and exciting phenomenon to both the amateur and professional ornithologist. The research problem presented in this paper was stimulated by the intriguing history and past studies of bird orientation and migration.

The history of ornithology presents several interesting ideas on the disappearance of certain birds in fall and their reappearance in spring. One of the most interesting ideas was the theory of hibernation which stood for some 2,000 years. This theory stated that birds hibernated in hollow-trees or in mud of streams and ponds during the winter months. Now it has been discovered that at least one species of bird, perhaps more, have certain physiological characteristics which allows the bird to go into a torpid state resembling hibernation.

It has also been learned that many birds have the ability to migrate with the help of an orientation system, the mechanism of which is not entirely known or understood. Evidence is accumulating to show that birds orient their courses during migration by the sun and/or stars.

Weather conditions were at one time thought to be the main factors in stimulating birds to migrate. Present evidence shows that weather acts as a modifier rather than a regulator of bird migration and movement.

Since the discovery of bird migration, mainly through banding studies, people wanted to know what caused birds to migrate as well as how they find their way over unknown territory. The length of daylight was finally recognized as one environmental factor that changed regularly year after year, and that could account for the exact timing of migration regardless of weather conditions. Present evidence indicates that the effect of day length is brought about in the response of the sensitive pituitary gland in the body of birds. This gland is responsible for the control of certain endocrine glands which have widespread influence on various tissues in the body. Under natural conditions the longer duration of light during the spring stimulates the pituitary gland which causes changes in certain tissues and actions of birds. It is believed, this, in some way as yet unknown, sets off the northward migration. With the decreased daylight in the fall opposite reactions occur and the southward migration begins.

Although photoperiodism appears to be basically involved in stimulating birds to migrate, it does not explain the evolutionary origin of the migratory habit, nor most mysterious of all, how birds find their way. Through banding studies it has been demonstrated that many species of birds have the capability of finding their way back to the exact winter or summer homes which had been used in former years. The research presented in this paper concerned the problem of whether birds were capable, once they had arrived at their nesting area, to locally orient

themselves in relation to their individual nests. To obtain this data, birds were captured, banded, color marked and released various distances from their nests in order to observe their homing ability. The term homing, as used in this research problem, was defined as the ability of a bird to return to a specific goal which, in this case, was its nest. Homing experiments have been tried with many species of birds in many parts of the world. The often differing results are always interesting and they continue to increase the mystery of the unusual and even the fantastic story of how birds find their way from one place to another through the great ocean of air.

### Object of Investigation

The objective of the five week study was to determine if Purple Martins (*Progne subis*), Cliff Swallows (*Petrochelidon pyrrhonota*), Bank Swallows (*Riparia riparia*), and Chimney Swifts (*Chaetura pelagica*), if released at various distances from their nests during daylight, darkness, and in many types of weathers, could orient themselves from the point of release to their nests and to ultimately find they way back.

### Procedures

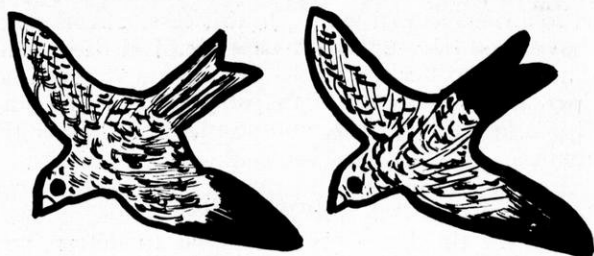
The homing studies were done during June and July of 1960 at the University of Minnesota's Lake Itasca Biological Station in Minnesota. The studies were done under the direction of Dr. Dwain Warner of the University of Minnesota's Museum of Natural History.

Purple Martins were captured by placing an insect net over the entrances of bird houses or caught by hand at night while the birds were sleeping. Cliff Swallows were caught by placing an insect net over the narrow neck of their flask-shaped mud or clay nest while the birds were inside. Bank Swallows were caught most successfully at night by shining a beam of light into their burrow nest and into the eyes of the birds. This usually caused the bird(s) to come out of the nest only to be captured in an insect net. Small cans with ventilated plastic bags or stockings tied around them and placed over the burrow entrance were also used to capture Bank Swallows. The two Chimney Swifts used in the study were picked off their nest while they were sleeping. Japanese mist nets were also used to capture some birds. Each nest was numbered so an individual bird could be identified with its nest.

The captured birds were weighed and measurements of wing lengths were taken. The birds were banded with U. S. Fish and Wildlife Service leg bands. Color bands were also used on some birds in addition to the official leg band. Different colors were painted on their wings and/or tail feathers in different color combinations to determine behavior habits of individual birds. The colors were painted on both the dorsal and ventral sides of the primary wing feathers and/or retrices. The paint was allowed to dry with the feathers separated. This eliminated the possibility of the feathers sticking together and hindering the flying ability of the birds. The painted feathers were replaced by new ones during molting later in the season. The color techniques were used to identify individual birds quickly with binoculars as they returned to their nesting area after a particular homing experiment. Thus, it was not necessary to recapture each bird for individual identification.



The birds were placed in covered carrying cages and transported by car to release points various distances and directions from their nests.



EXAMPLES OF COLOR MARKS FOR IDENTIFYING BIRDS IN THE HOMING EXPERIMENTS. BIRD ON LEFT SHOWS LEFT WING MARKED. BIRD ON RIGHT SHOWS LEFT WING AND TAIL COLOR MARKED.

Some birds were released during the day and others during the night under different weather conditions.

After the birds had been released, their nesting sites were carefully checked at frequent intervals to see if they had returned. The exact speed at which birds returned could not be closely checked in these experiments because the author had other research obligations and could not be at the nest areas at all times.

Often individual birds were captured and released over and over again in different homing experiments. The distances from nests to points of release were measured as a straight line on maps even though birds seldom travel in a straight line while flying, usually because of the influence of weather, especially of winds, upon their flight.

## Results

Despite the various weather and light conditions under which birds were released, there was an amazingly high percentage of homing returns for the birds tested. Eighty-three experimental homing tests were carried out on four species of birds. Sixty-six (79.5 percent) of the birds returned to their nests while only 17 (20.5 percent) did not return (Table 1).

Table 1. Summary of Homing Experiments

Bird	Total Number of Tests	Number Returned	Number Not Returned
Purple Martin	45	39	6
Cliff Swallow	17	15	2
Bank Swallow—Adults	7	5	2
Bank Swallow—Fledglings	10	3	7
Chimney Swift	4	4	0
Total	83	66 (79.5%)	17 (20.5%)

Table 2. Purple Martin Homing Experiments

Bird Number	Sex	Percent Cloud Cover	Day or Night Release	Date of Release	Distance and Direction of Release from Nest in Miles	Date Seen At Nest	Bird Returned	Nest Contents
1	F	100	Day	June 16	2.7 SE	June 22	Yes	Eggs
		100	Day	July 9	140.0 NW	July 11	Yes	Young
2	F	100	Day	June 16	2.7 SE	June 18	Yes	Eggs
		25	Night	June 20	2.7 SE	June 21	Yes	Eggs
		10	Day	June 25	110.0 SE	June 27	Yes	Eggs
3	F	100	Day	June 16	2.7 SE	June 20	Yes	Eggs
		25	Night	June 20	2.7 SE	June 21	Yes	Eggs
		100	Day	July 9	140.0 NW	July 11	Yes	Young
4	F	100	Day	June 16	2.7 SE	June 18	Yes	Eggs
		25	Day	June 18	6.8 SE	June 20	Yes	Eggs
		25	Night	June 20	2.7 SE	June 21	Yes	Eggs
		100	Day	July 9	140.0 NW	July 11	Yes	Young
5	F	100	Day	June 16	2.7 SE	June 18	Yes	Eggs
		25	Day	June 18	4.8 W	June 20	Yes	Eggs
		25	Day	June 20	2.7 SE	June 20	Yes	Eggs
		25	Night	June 20	2.7 SE	.....	No	Eggs
6	F	100	Day	June 16	2.7 SE	June 21	Yes	Eggs
7	F	100	Day	June 16	2.7 SE	June 18	Yes	Eggs
		100 Rain	Day	June 20	2.7 SE	June 21	Yes	Eggs
8	F	100	Day	June 16	2.7 SE	June 18	Yes	Eggs
		25	Day	June 18	4.8 W	June 20	Yes	Eggs
		100 Rain	Day	June 20	2.7 SE	June 20	Yes	Eggs
		25	Night	June 20	2.7 SE	June 25	Yes	Eggs
9	M	100	Day	June 16	2.7 SE	June 18	Yes	.....
		25	Day	June 18	4.8 W	June 25	Yes	.....
10	F	25	Day	June 18	4.8 W	.....	No	Eggs
11	F	25	Night	June 20	2.7 SE	June 22	Yes	Eggs
		10	Day	June 25	110.0 SE	.....	No	Eggs
12	F	25	Night	June 20	2.7 SE	June 24	Yes	Eggs
		10	Day	June 25	110.0 SE	June 27	Yes	Eggs
13	M	25	Night	June 20	2.7 SE	June 21	Yes	Eggs
14	F	25	Night	June 20	2.7 SE	.....	No	Eggs
15	F	....	Day	June 21	1.5 SW	June 22	Yes	Eggs
16	F	....	Day	June 21	1.5 SW	June 22	Yes	Nothing
		....	Day	June 22	1.5 SW	.....	No	Nothing
17	F	100	Day	July 9	141.0 NW	July 11	Yes	Young
18	M	100	Day	July 9	141.0 NW	.....	No	Eggs
19	F	10	Day	June 27	6.0 SE	June 28	Yes	Eggs
		0	Night	June 28	6.0 SE	July 4	Yes	Young
		15	Day	July 4	30.0 NW	July 5	Yes	Young
20	F	10	Day	June 27	6.0 SE	June 28	Yes	Eggs
		15	Day	July 4	30.0 NW	July 5	Yes	Young
21	M	0	Night	June 28	6.0 SE	June 29	Yes	Young
		....	Day	June 29	10.0 SE	July 4	Yes	Young
		15	Day	July 4	30.0 NW	July 6	Yes	Young

Forty-five homing tests were made with Purple Martins (Table 2). Thirty-nine birds (86.7 percent) returned to their nests while only six birds (13.3 percent) did not return. There were nine returns out of eleven night releases and 30 returns out of 34 day releases. It is significant to note that eight birds were released 110 miles or more from their nests. Of these eight birds, six returned. The average weight of the female test birds was 55.1 grams and for males 54.9 grams.

Of the 17 homing experiments tried with Cliff Swallows, 15 (88.2 percent) returned and two (11.8 percent) did not return (Table 3). Their average weight was 24.8 grams.

Table 3. Cliff Swallow Homing Experiments

Bird Number	Percent Cloud Cover	Day or Night Release	Date of Release	Distance and Direction of Release from Nest in Miles	Date Seen At Nest	Bird Returned	Nest Contents
1	100	Day	June 16	9.8 S	June 18	Yes	Eggs
	25	Day	June 18	6.8 W	June 20	Yes	Eggs
	25	Day	June 20	0.8 S	June 21	Yes	Eggs
2	100	Day	June 16	0.8 S	June 16	Yes	Eggs
	100	Day	June 16	0.8 S	June 18	Yes	Eggs
	25	Day	June 18	6.8 SE	June 21	Yes	Eggs
	....	Day	June 22	0.8 SW	July 4	Yes	Eggs
3	100 Rain	Day	June 20	2.5 SE	June 21	Yes	Eggs
	....	Day	June 29	10.0 NE	June 29	Yes	Young
4	25	Night	June 20	4.3 SE	July 5	Yes	Young
5	30	Night	June 20	4.3 SE	June 29	Yes	Young
6	30	Night	June 20	4.3 SE	July 5	Yes	Young
7	30	Night	June 20	4.3 SE	July 5	Yes	Young
8	100 Rain	Dusk	June 21	2.5 SE	June 22	Yes	Eggs
9	100 Rain	Day	June 21	4.3 SE	June 25	Yes	Eggs
10	10	Day	June 25	110.0 SE	.....	No	Nothing*
11	10	Day	June 25	110.0 SE	.....	No	Nothing*

\*Nests were destroyed by owner of building.

Seven tests with adult Bank Swallows showed five returns to their burrow nests or a 71.4 percent return (Table 4). Ten fledgling Bank Swallows were released during the day three miles southeast of their nests. Three of the birds returned demonstrating a return percentage of 30 percent. One of the birds was recaptured from the same nest from which it was originally captured. Adult average weight was 13.9 grams.

Four tests were made with two Chimney Swifts. There was a 100 percent return (Table 5). Their average weight was 25.0 grams.

### Discussion

Even though this research problem was somewhat incomplete because of time limitations, some interesting suggestions of the homing ability of swallows and swifts were obtained.

A 79.5 percent return of birds to their nests out of 83 tests was obtained. This high percentage is important statistically. It was evident that many birds had a definite homing ability which allowed them to find their way back to a goal. This seemed to hold true even when birds were released in many types of weather during the day or the night. It appeared that weather and light conditions did not play a major role in limiting the birds from ultimately returning to their nests. However,

**Table 4. Adult Bank Swallow Homing Experiments**

Bird Number	Per-cent Cloud Cover	Day or Night Release	Date of Release	Distance and Direction of Release from Nest in Miles	Date Seen At Nest	Bird Re-turned	Nest Con-tents
1	25 0	Day Day	June 18 June 28	6.8 SE 25.0 W	June 28 June 29	Yes Yes	Eggs Young
2	25 25	Day Day	June 18 June 29	6.8 SE 6.0 SE	June 29 .....	Yes No	Eggs Young
3	100	Day	June 16	3.0 SE	July 3	Yes	Young
4	25	Day	June 18	6.8 SE	.....	No	Eggs
5	0	Day	June 28	6.8 SE	July 3	Yes	Young

unfavorable weather may have delayed or prevented returns, but this factor was not accurately measured. The night returns are particularly interesting for the fact that swallows, when they are migrating, are known to fly during daylight unlike many other passerine birds.

Eight Purple Martins released 110 or more miles from their nests showed an 80 percent return. It was not possible for those birds, or any of the other test birds, to observe landmarks in their completely

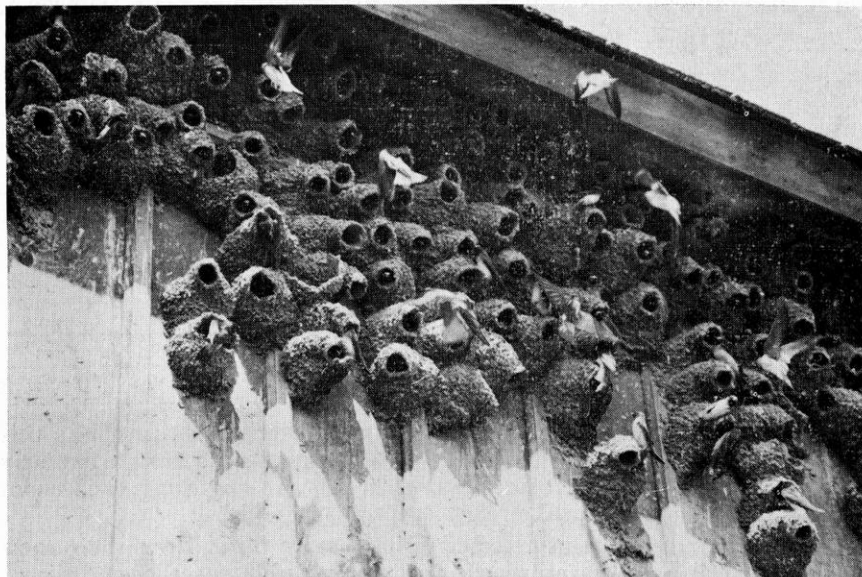
**Table 5. Chimney Swift Homing Experiments**

Bird Number	Per-cent Cloud Cover	Day or Night Release	Date of Release	Distance and Direction of Release from Nest in Miles	Date Seen At Nest	Bird Re-turned	Nest Con-tents
1	25 0	Day Day	June 29 June 30	0.8 S 5.0 W	June 29 July 1	Yes Yes	2 Eggs 2 Young 1 Egg 3 Young
2	25 0	Night Night	June 29 June 30	0.8 S 5.0 W	June 29 July 1	Yes Yes	2 Eggs 2 Young 1 Egg 3 Young

dark, covered, carrying cages which were placed in the trunk of a car and transported to release areas. It was likely that the birds were released in unfamiliar territory. The six birds that did return covered the 110 or 140 mile route to their nest within at least two days. It is possible to infer that landmarks were not the primary factors in orienting the birds for their return trip. It appeared there was another mechanism which guided the birds over a totally unfamiliar territory. A fledgling Bank Swallow experiment also supported the latter statement.



A Bank Swallow colony was carefully observed to determine when young were hatched as well as their subsequent development to the fledgling stage. At the fledgling stage ten birds, which had never been out of their burrow nests, were captured. They were released three miles away. Three of the birds returned to the nesting colony. One of the birds was recaptured in the same nest from which it had been originally



CLIFF SWALLOWS WERE CAPTURED FROM A COLONY SIMILAR TO THIS BY PLACING AN INSECT NET OVER THE ENTRANCES OF THEIR FLASK-SHAPED NESTS WHILE THEY WERE INSIDE. THEY WERE CAUGHT WHEN THEY TRIED TO LEAVE THE NEST.

PHOTO BY WISCONSIN CONSERVATION DEPARTMENT

captured. How did these three birds which had never seen the outside of their burrow nests until their release find their way back? This is one of the mysteries!

Experimental birds having nests containing eggs or young may have had more incentive to return. All returning experimental swallows and swifts returned to the exact nest from which they had been captured. It might be inferred from this that birds do have a memory which enables them to distinguish their own individual nest after making the flight home. This can be appreciated particularly at a Bank Swallow or Cliff Swallow colony where there are often 50 to 100 or more nests which all seemingly look similar, at least to the human observer. How the birds recognize their own nests and also their own young, if present, amidst all of the others in a colony is another interesting question.

The behavior of birds was noted as they were released. As birds gained altitude, there was a tendency for them to fly in circular patterns for several minutes and, at first, appeared confused. However, they soon seemed to fly off with some purpose.

Three birds released at night after exposure to light for five minutes had difficulty avoiding objects while flying. They flew into trees and

buildings. Birds released at night and not exposed to light had no trouble maneuvering around objects in their way. It seemed necessary for birds to adjust themselves to sudden light changes. This was demonstrated by birds exposed to light and then allowed to adjust to the dark for a half hour. They had no difficulty in flying around objects. Their reactions seemed much like humans coming from a lighted room into the darkness of night. Vision is better after one becomes accustomed to the darkness after 20 to 40 minutes.

About one-third of the world's bird species are migratory to some degree. This involves millions of birds. Much is yet to be learned about how birds find their way from place to place. This is still a mysterious and exciting frontier for students of ornithology. More precise information about navigation is being learned by the use of tiny lights and radio transmitters attached to birds in order to follow their movements. Radar and sensitive recording devices to record voices of birds as they migrate have also been employed to study this phenomenon. The possibility of the future use of space satellites to follow the movements of birds has many interesting possibilities.

### Conclusion

The results do not explain how the experimental birds found their way back to their nests, but they do show that a high percentage of swallows and swifts did return to a specified goal. Their manner of navigation and orientation, not only in their migration habits but also in their local homing ability, remains a mystery that is far from being completely solved. A researcher working on a problem such as this can certainly gain a great deal of respect and wonderment for bird life. After the wonderful experience of doing such a study as presented here, the following statement seems appropriate, "When knowledge fails, wonder increases."

### References and Suggested Readings

- Dorst, Jean, **The Migration of Birds**. Houghton Mifflin. 1963.  
Lincoln, Frederick C., **The Migration of Birds**. Doubleday. 1952.  
Matthews, G. V. T., **Bird Navigation**. Cambridge University Press. 1955.  
3829 Council Crest  
Madison, Wisconsin 53711

## NEWS . . .

**President Alfred O. Holz** was recognized for his outstanding contributions to conservation by the Northeastern Wisconsin Audubon Society on January 26, 1964, at Green Bay. He received an honorary membership to the Society.

Senator Gaylord Nelson also received an honorary membership in recognition of his leadership in passage of legislation in natural resource management.

**Fred and Fran Hamerstrom** want to remind you that the Winter Owl Survey reports are due now, and they urge you to send them your observations as soon as

possible. Remember, this is for the winter phase of the survey only. The Nesting Owl Survey reports will be due at the end of the nesting season.

**We can't let 1964 go by** without some sort of a fuss. After all—anniversaries are meant to be celebrated. The 25th annual convention promises to be one that will be long remembered by WSO members. The editorial staff of **The Passenger Pigeon** is planning some extra special things, too. If you want to help with the silver anniversary celebration, one way is to tell your friends about the Society and invite them to become members. Our membership chairman, Mrs. LeRoy Mattern, has an at-

(continued on page 179)

# SILVER ANNIVERSARY CONVENTION NEWS

## ROGER TORY PETERSON TO SPEAK

Roger Tory Peterson will head the program of WSO's silver anniversary convention. That fact alone should attract every WSO member to Madison on the weekend of May 22-24, 1964.

Among birders, no other name is so little in need of introduction as Peterson's. As author-illustrator of the unexcelled field guides we all own and use, as writer, photographer, artist and lecturer, Peterson has earned a front rank position among professional ornithologists.

Peterson has recently been in Africa, and a film on that continent's rich bird and animal life is believed to be in progress. Perhaps we shall be among the first to see it. Peterson has not as yet indicated what film he'll narrate. But he will be our Saturday evening banquet speaker, and he will have one of his films for us.

The banquet will be held in Great Hall of the University of Wisconsin Memorial Union, and the film will be shown in the Union Theater. Other convention activities, including the Book Store and displays, will be housed in the new Wisconsin Center, almost next door to the



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Union. The convention committee feels that the physical arrangements are going to be just about the finest in WSO history.

Top names among Wisconsin ornithologists will also appear on the program. Murl Deusing will show some of the same movies he brought to the WSO meeting 25 years ago, and John Emlen of the University of Wisconsin will show his superb slides of bird life in maritime Canada.

The customary paper sessions, the Book Store, fascinating displays on the history of WSO and the creation of Owen Gromme's **Birds of Wisconsin**, field trips, and something new—a "white elephant sale"—will add up to what looks like a brilliant convention.

The convention committee sincerely urges everyone to plan to attend, and to watch for further information in **The Passenger Pigeon**, **The Badger Birder**, and by direct mail. When the time comes, get your reservation in promptly, and don't miss a single feature of this outstanding 25th anniversary convention.—Eugene Roark.

### WHITE ELEPHANT SALE

A good start has been made collecting "white elephants" for our silver anniversary celebration—the 1964 convention in Madison, May 22-24. This is an opportunity for members of WSO to donate items which are no longer needed. If we can use our experience of the 10th anniversary as an example in this regard, we should assemble \$1,000 worth of merchandise. The Supply Department will sell these things and the proceeds will be used for projects of the Society's own choosing.

Please lay away useful items in the nature field which you no longer need. We have ready sale for used books, pictures, pamphlets, binoculars, phonograph records, bird houses and feeders, color slides, jewelry and related objects.

The Supply Department has appointed N. R. Barger, 4333 Hillcrest Drive, Madison, 53705, to assemble these items. He will accept them at the door when you come to the convention. If you cannot attend, please send the things ahead of time, if possible. In fact, items may be turned over to Mr. Barger at his home any time prior to the convention. Receipts will be furnished for all items received and a complete listing will be maintained, together with prices.—N. R. Barger.

## *Book Reviews*

NAMING THE BIRDS AT A GLANCE. By Lou Blachly and Randolph Jenks. Guide drawings by Sheridan Oman. Alfred A. Knopf, Inc., New York 22, N. Y., 1963. 4½ x 7½ in., xvii + 331 pp. \$3.95.

Here is a bird guide that's different! The authors, one of whom (Blachly) studied at the University of Wisconsin, have attempted to simplify bird identification for the beginner.

The system used in this book is based on an arrangement of birds by the most obvious color features. Indexes to these, called "Color Pattern Guides" are conveniently located at the front, back and center of the book. For example, if a bird with a solid yellow throat is seen, the color pattern guide quickly sends one to a section of the book in which are described the Yellowthroat, Yellow-throated Warbler, and Yellow-



breasted Chat. Descriptions are accompanied by large, high-quality, black and white drawings in which color features are clearly labeled. If a bird possesses more than one distinguishing color feature, the drawing and description are repeated, in the appropriate sections, perhaps several times. The Bluebird is described in "Blue Combinations" and again in "Brown, Rufous, or Chestnut Combinations." The repetition should be quite helpful to the user of the book.

The book claims to cover "Eastern land birds from South Carolina west to the Rocky Mountains and north to the Arctic." Birds judged to be rare or unusual are omitted. Of the birds in the WSO checklist, **Wisconsin Birds**, thirteen purely land birds are not mentioned. Shorebirds and plovers (including the Killdeer) are not considered land birds.

A good case can be made for using color keys for bird identification; this book presents the argument very well. At the same time, family resemblances, flying and feeding habits, and preferred habitat can furnish clues as useful in field identification as color features. Blachly and Jenks have used only color and the drawings.

This book can be recommended as a good guide for the beginning bird watcher. When the beginner starts to watch more than casually, or when he begins to raise his binoculars near water, one of the more comprehensive standard field guides will be necessary, as the authors themselves suggest.—F. T. Ratliff.



## Towhee in Winter

By WILLIAM J. SCHMIDT

Sojourner! Seasonal anachronism,  
Stirring up your pile of leaves  
So few feet from walk and blacktop  
Instead of priming forest thicket  
To woo along spring rains.

Defend that songless reticence  
And drink your cup of tea  
Behind the canopy of hedge.  
Are you pilgrim or reformer  
As if to challenge equinox  
By stance of avian nonchalance?

Entering feathered microcosm  
From your level point of view  
Perhaps the solitary is not lonely  
And the winter more than bleak,  
And her frozen earthen crust  
Becomes maternal portal.

527 Riverside Drive  
New York, N. Y. 10027

# Our Readers Write . . .

## DEPLORES SPRAYING

Our home is in Burnett County. We live on a farm of 100 acres. Most of the land is somewhat hilly, with Trade River winding through the lowland. There is approximately eight acres of woods, with scattered trees and bushes throughout the pasture land.

For the past several years I have allowed seedling trees to grow on two sides of our yard. The areas are about 24 feet by 75 feet. When these trees grew to a height of four to six feet, I pruned them and continued each year to prune them. They have grown into thick, many-branched trees up to eight feet tall. These areas have poplar, box elder, American and Chinese elm, and wild cherry trees. I have also trimmed young trees near the river.

We have been rewarded by a large number of nesting birds, particularly in 1962 and 1963, and have counted as many as 59 species on our farm in late June, 1963. Some birds nested in our yard for the first time this past summer, among which were the Indigo Bunting, Catbird, Crested Flycatcher, Red-eyed Vireo, Warbling Vireo and Least Flycatcher. In our fields and neighboring fields the Dickcissels were numerous in 1963.

The first part of June, 1963, we observed a pair of Catbirds and saw the nest being built. Three young were hatched and were guarded not only by mother and father Catbird, but by my husband and myself. The growth of the young birds was rapid, but on June 24 the "spoilers" came by, spraying all roadside bushes. Though the nest was not actually sprayed, the young birds were found dead in the nest on July 1st, probably having been fed sprayed insects or killed by suffocating

fumes. I examined these nestlings carefully and found they were in good flesh and without any sign of injury. On July 2 we found a young Robin dead in our garden. The parent Catbirds built another nest in the thicket—somehow they were spared the fate of their first brood. The second brood was raised successfully.

These past few years our roadsides have been sprayed thoroughly. We have seen grapevines which probably were growing a hundred years, choke cherry trees, beautiful bittersweet vines and many other lovely shrubs and trees doomed by chemicals. Many of these are "protected" by the state of Wisconsin.

Everyone we have talked to is opposed to roadside spraying. Perhaps, if each of us would resolve to write our town boards, congressmen and senators and make our wishes known, we could put an end to the senseless slaughter of wildlife and vegetation.

Birding is good now, but for how long?

Mrs. Helen A. Caldwell  
Route 2  
Grantsburg Wisconsin



## THE 1963 MAY COUNT

By THOMAS SOULEN

With a more normal amount of advance publicity this year, nearly 200 Wisconsin observers took part in 23 May Counts during the period May 11-19, 1963. They unearthed a good variety of species (240 plus one hybrid), rather more than has been found in the past few years. There were miscellaneous observations of 13 additional species during the period.

The rarities observed on the counts are noted in the appropriate places in the following summaries and in the Field Notes. Most groups expended no effort this year to document their more unusual finds. Exceptions were the Wausau group and, for some species, the Racine and Green Bay groups. The following species were reported without supporting details: Rough-legged Hawk, Brown Creeper, Hermit Thrush, Golden-crowned Kinglet, Rusty Blackbird, Slate-colored Junco, Tree Sparrow, and Fox Sparrow (except for the injured Green Bay bird).

On the other hand, more groups reported not only the species seen, but the number of individuals of each. Such information makes for a much more interesting record, at least to the seasonal editor. Among the more interesting items of this type were the 22 Sparrow Hawks, 17 Harris' Sparrows, and 21 White-crowned Sparrows on the Douglas County count; the 20 Eastern Bluebirds, 91 Rose-breasted Grosbeaks, and 180-plus Pine Siskins on the Wausau count; and the five Whistling Swans seen near the area of the Antigo count. (The compiler of the Antigo count relates the story that "one had been killed and (the) mate refused to leave the location.") Those groups which in the past have provided especially complete details of the count are again due our thanks, and to this rather small number should be added this year the groups in Douglas County, Kettle Moraine, Vernon County, and Polk County.

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## SUMMARY OF THE MAY COUNTS

**RACINE:** 157 species. 25 observers were out from 4:30 a. m. to 7:00 p. m. in various parts of Racine County on May 11 under partly cloudy skies, with strong winds and a temperature of 40. They saw Yellow-crowned Night Heron, Whistling Swan, Piping Plover, Laughing Gull (see Field Notes), Hermit Thrush, Worm-eating and Kentucky Warbler, Blue Grosbeak (seen well), Harris' and Fox Sparrow. 28 species of warblers. Reported by Louise Erickson.

**GREEN BAY:** 157 species. Green Bay Bird Club members were in the field from 5:00 a. m. to 7:00 p. m. on May 19. They found Whistling Swan, White-rumped Sandpiper, Marbled and Hudsonian Godwit, Northern Phalarope, Rusty Blackbird, Pine Grosbeak (apparently a sick bird), and Fox Sparrow (injured). 23 warbler species. Reported by Edwin D. Cleary.

**MILWAUKEE:** 153 species. 18 observers covered parts of Milwaukee and Ozaukee counties from 4:00 a. m. to 8:00 p. m. on May 13. Temperature 47-70, sky overcast to clear, wind SE 8-15. Of interest were Yellow-crowned Night Heron, Willet, Hermit Thrush, Prothonotary and Hooded Warblers. 27 warblers species. Reported by Mary Donald.

**ST. CROIX COUNTY:** 146 species. Sam Robbins investigated areas near Hudson, Roberts, and Star Prairie from 3:30 a. m. to 1:15 p. m. and from 5:15 to 7:00 p. m. on May 17, with four hours of rain and mostly cloudy skies. He found Short-billed Dowitcher, Sanderling, Western Kingbird, Bewick's Wren, Blue-gray Gnatcatcher, Cerulean Warbler, Le Conte's Sparrow. 21 warbler species.

**APPLETON:** 135 species. Three observers searched the Appleton area on May 11 from 4:30 a. m. to 7:30 p. m. under clear skies with no wind and temperatures ranging from 29 to 52. Of note were Whistling Swan, Rough-legged Hawk, Lapland Longspur. 22 warbler species. Reported by Daryl Tessen.

**BELOIT:** 135 species. The Ned Hollister Bird Club took its count May 12, finding Baird's and Stilt Sandpiper, Sanderling, Long-eared Owl, Brown Creeper, Mockingbird (undocumented and not otherwise reported to the Field Notes editor), Hermit Thrush, Golden-crowned Kinglet, Lark Sparrow. 24 warbler species. No reporter indicated.

**OCONOMOWOC:** 124 species plus one hybrid. 18 members of the S. Paul Jones Bird Club searched the Oconomowoc area from 5:30 a. m. to 6:00 p. m. May 12 under somewhat unpleasant conditions (cloudy with showers, wind NE 5-25, temperature 44-55). Particularly interesting were unbelievable numbers of some species (detailed in the Field Notes) and the presence of these species: Ruddy Turnstone, Brewster's Warbler, and Yellow-breasted Chat. 24 species of warblers, plus one hybrid. Reported by Ed Peartree.

**DOUGLAS COUNTY:** 123 species. Eleven observers put in 98 hours May 11 scouting mainly the Superior area from 5:00 a. m. to 8:00 p. m. under cloudy skies, with a 10-15 m. p. h. wind and temperatures ranging from 23 to 58. The territory covered included 50% deciduous woods, 15% open fields, 10% lakeshore, 10% croplands, 15% miscellaneous (coniferous woods, parks, marshes, residential areas). This far northern count provided some interesting species: Bald Eagle, Peregrine Falcon, Sharp-tailed Grouse, Hawk Owl, Common Raven, Golden-crowned Kinglet, Rusty Blackbird, Evening Grosbeak, Slate-colored Junco, and these sparrows: Tree, Harris', and Fox. 13 warbler species. Reported by Richard Bernard.

**WAUKESHA COUNTY:** 117 species. Members of the Benjamin F. Goss Bird Club spent six hours on May 19, from 5:00 a. m. on, covering areas mainly west and south of Waukesha. They found Willet, Baird's Sandpiper, and Yellow-bellied Sapsucker. 21 species of warblers. No reporter indicated.

**WAUSAU:** 116 species. 25 members of the Wausau Bird Club had trouble finding birds on a cold and windy day May 12 within 7½ miles of the center of Wausau. They expended considerable effort: from 5:30 a. m. to 6:00 p. m. they amassed 101 hours, 31½ miles walked, 199 miles by car. Their territory was 50% woodland, 30% field, 15% urban, and 5% water. In these places they uncovered Canada Goose, Sandhill Crane, Philadelphia Vireo, Prothonotary Warbler, Red Crossbill, Lark Sparrow, Slate-colored Junco, and Fox Sparrow. 16 warbler species. Reported by Emily Bierbrauer, who obtained good documentation of the rarities reported.

**TOWN OF OTTAWA, WAUKESHA COUNTY:** 107 species. Mr. and Mrs. C. E. Nelson were out from 8:00 until dusk on May 11, a rather cool and windy day. They located Dowitcher and Cerulean Warbler. 17 species of warblers.



**HORICON MARSH:** 103 species. Ed Prins, Bob Fiehweg, Bill Weber, Mark and Paul Madsen investigated the immediate vicinity of Horicon Marsh from 7:45 a. m. to 7:15 p. m. on May 18, finding Least Bittern, Rough-legged Hawk, Hudsonian Godwit, and Winter Wren. 14 warbler species.

The additional 11 counts, some very brief and very local, were taken in Jefferson County (89 species, Elizabeth Degner and Mrs. Jerry Housz), Kettle Marine State Forest (86 species, Myron Reichwaldt), Sheboygan County (74 species, Harold Koopmann), SE Wood County (64 species, Gary Stout), Antigo area (62 species, Audubon Club and friends), Tomahawk area (61 species, Donald Hendrick), Clintonville area (59 species, Mrs. Russell Rill and son Jeff), a farm in Vernon County (58 species, Viratine Weber), Evansville (51 species, Mrs. John Brakefield and Mrs. Ruth Irvengood), the Luck area of Polk County (37 species, Mrs. Lester Pederson), and a yard in Sauk City (25 species, Mrs. Henry Koenig).

9-D University Houses  
Madison, Wisconsin 53705



## *By The Wayside...*

**Swimming Killdeer at Clintonville.** One thing . . . that surprised me . . . was a baby Killdeer swimming. I have never seen Killdeer, adult or young, swim. The parent bird was on the opposite side of a 15 foot stream (ditch from the river) and the young swam across to the parent bird and followed her.—Mrs. Russell Rill, Clintonville.

**Long-billed Curlew at Cedar Grove.** On May 27, 1963, at 1:30 p. m. (CDT) I was taking my daily walk along the Lake Michigan beach near the mouth of Bahr Creek in Sheboygan County. When I was about 200 yards north of the creek, I noticed an extremely large shorebird with a long, decurved bill standing on the beach near the mouth of the creek. I approached the bird slowly, stopping every 20 yards or so to observe it through 7x50 binoculars. The bird was a rich buff color, darker above; the crown was not striped and no conspicuous markings were evident. It appeared to be about five times as large as a nearby Spotted Sandpiper (*Actitis macularia*), and its bill was approximately as long as the entire sandpiper. When I reached a point about one hundred yards from the bird, it flew out over the lake and to the north, passing east of me at a distance of about 60 yards and at a height of about 10 yards. No conspicuous markings were noted. The bird called several times as it flew past me. The call consisted of four syllables with the first longer and somewhat different from subsequent ones. The bird continued to fly north along the shore of the lake until it passed from sight.

I am convinced that the bird was a Long-billed Curlew (*Numenius americanus*), a species which I have observed previously in Texas.

**Wisconsin Birds: A Checklist with Migration Charts** lists the Long-billed Curlew as having last been seen in Wisconsin in about 1890.—Helmut C. Mueller, Madison.

Correspondence from Owen J. Gromme reveals that he and Chappie Fox observed another bird of this species in this same location June 14, 1936, and that "Clarence Jung had seen what probably was the same bird a week earlier."—Spring Seasonal Editor.

**Whimbrel Near Lake Superior.** This bird was seen May 19 on the banks of Fish Creek near Long Bridge at 9 a. m. It was observed through 7x35 binoculars at approximately 50 feet for three minutes. Of all shore-birds seen, this was the most suspicious and wary. The down-turned beak, seemingly all out of proportion to its body, and the striped crown were two marks that made this a Whimbrel. Although dark brown in color, I listened for the call to eliminate the possibility of its being anything else. The noise of a passing Greyhound bus frightened it into flight. Its call was rapid and piercing and was the call that I had heard often from Alaskan Whimbrels.—Janet L. Kozlowski, Ashland.

**Great Black-backed Gull Again Visits Lake Michigan.** On March 1 I saw an immature Great Black-backed Gull by the sewage disposal plant. Its bill was large and black—longer than a Herring Gull's and almost twice as thick. The eye was dark with a faint gray smudge around it. It was about one inch taller than a Herring Gull and two to three inches longer. The head and neck were grayer than the mature Herring Gulls nearby. The gull's wings and back were a buffy brown color—a saddle-back effect. The contrast of the brown on the wings and lighter color underneath was noticeable. In the group it stood out as larger, browner and had a large black bill. The bird was observed from . . . about 100 yards (10x40 binoculars and 40x80 scope).—Louise Erickson, Racine.

**Townsend's Solitaire Appears Again in State.** Driving down a little logging trail through jack pine woods I saw a bird fly up in front of the car to the limb of a tree about 15 yards in front of me. I stopped the car and watched the bird carefully. It was completely exposed to view. I immediately recognized it as something I had never seen before. My on the spot notes record that it was bigger than a House Sparrow, smaller than a Robin. It was gray, uniformly so on the back, lighter on the stomach. There was a conspicuous white eye ring. The back was thrush-like. Then just as I was trying to get a better look, it flew off into the woods away from the road. Roland Irwin was with me. I suspected it was a Townsend's Solitaire. I did note a suggestion of a wing bar. We followed in the direction it flew, hoping for another look. Sure enough, we saw it again on a tree limb. Again we had a good look. From the back it looked something like a big junco (all except the beak). Then it flew off again, and this time I very definitely saw the white outer tail feathers.

Having perused Peterson's **A Field Guide to Western Birds** many times, I was confident of its identity. On arriving home and checking the guide I found all the field marks except the buffy wing patch. In my abbreviated look I only noted a light wing bar.—Charles Kemper, Chipewewa Falls.

**Yellow-throated Warbler in Madison.** On the morning of May 2, 1963, while conducting a field trip for a University class in field ornithology, I came upon a Yellow-throated Warbler in some low vegetation at the base of Picnic Point. The bird moved about at the edge of a clearing, presenting itself repeatedly for clear viewing. The white eye stripe and neck mark were strikingly different from the orange or yellow head markings of the superficially similar Blackburnian Warbler. Wishing to enlist as many witnesses as possible, I refrained from announcing my identification and asked each of the twelve members of the class to

refer individually to his Peterson's **A Field Guide to the Birds**. The confirmation of this identification by the students was unanimous. This bird was in almost the exact spot where Sam Robbins had found a bird of the same species on May 6, 1940. Our bird remained in the area for at least five days, being observed on May 3, 4, 5, and 6 by a number of experienced field observers including Mr. Steven Curtis and Mr. Paul Kromholz.—John T. Emlen, Madison.

**Another Sighting of Blue Grosbeaks.** On May 18 I was in a mixed woods of tamarack . . . willow brush and popples alongside a marshy area checking the warbler flight, when all at once there were these two blue birds. I recognized the grosbeak bill and the blackish color of wings and tail and the wing bars which were not too pronounced.

I checked the guide immediately, and realizing I had something rare, I tried my movie camera on them, but my inexperience with the camera didn't allow enough footage, so they were not very good. I watched the birds for about ten minutes before they flew away.

Although I checked there for several days, I did not see them again. I am quite positive about the birds for there was no mistaking that large bill.—Harold Lindberg, Peshtigo.

**Hypothetical Report of a Golden-crowned Sparrow.** I am positive that I have a record of a Golden-crowned Sparrow, based strictly on song. I first heard it on Sunday, May 5, while looking for some early thrushes, about two miles west of Ashland on highway 112 near a stream. Since then, I have heard it singing alternately with the White-throated Sparrows every day in this same place.

Incidentally, it is the only place that I have heard the White-throats sing, with the exception of one that has visited my feeder since April 18, and this one sings only rarely.

Actually, it was like meeting an old friend, for I was in southeastern Alaska for four years where it was an abundant spring migrant. There it traveled with the White-crowned Sparrows. Its song is more than familiar to me. In addition, my husband worked one full summer with the Forest Service on the Kenai Peninsula where it is an abundant summer resident. He confirms that this is definitely the Golden-crowned, for he remembers it as the "oh-dear-me bird." Its song is unmistakable. This bird near Ashland responds readily to the easily imitated song. I have searched long and hard for a sight record, but so far have been unsuccessful. In addition, I was in western Alaska where it is an erratic migrant and also in central Alaska where it has the same status. I can think of no other bird whose song is anything like the Golden-crowned's.

June 8. I have heard it daily up to the 25th of May as it sang its 3-note song. The weather has been none too good up here. It has been windy and/or rainy and/or foggy. The 29th was clear and sunny, and I heard the song again. This time it was singing almost incessantly, approximately once every 5 seconds in contrast to a White-throat that was singing once every 10 to 15 seconds.

The most significant change, however, was its switch from a 3 to a 4-call note. Although I knew that it gave a four-call note, I had never heard it, but I'm certain that it was the same individual. It's unlikely

there were two Golden-crowneds (even one seems to be). I feel it is a matter of seasonal song. Although it once sang so close to me that I felt I could touch it, I never did see it. I last heard it on the 5th.—Janet L. Kozlowski, Ashland.



# FIELD NOTES

By THOMAS SOULEN

Spring Season

March 1-May 31, 1963

Of the those observers who commented generally on the spring 1963 season, the majority were unimpressed by the migration. There were distinct dates of heavy movement in some areas, but very few Wisconsin ornithologists witnessed anything like the massive influxes of birds which have occurred in some recent years. Perhaps the single exception would be Ed Peartree, who with his Waukesha County neighbors saw on May 12 the "largest wave of warblers, tanagers, grosbeaks, buntings and veerys that I have ever seen. Large wave of other thrushes on May 14." This wave included "Parula, Mourning, Wilson's, Ceruleans by the dozens, Tanagers, Grosbeaks and Buntings by the hundreds." Probably the only well marked and general wave occurred in Racine County May 22-23, when Louise Erickson noted large numbers of flycatchers, vireos, thrushes and warblers. More observers complained about a poor warbler migration than about the lack of birds of other families. There were also isolated comments about flycatchers, vireos, or thrushes being down in numbers. A few observers, mostly from southeastern counties, were fortunate enough to locate large numbers of birds of some or all of these families. With water birds the situation was different: all those who mentioned them said they were in good supply, especially the shorebirds. As for the timing of the migration, movement of most species after mid-March was about normal. In May, individuals of many species arrived close to the expected dates, but many observers commented on late arrivals.

## Especially Thorough Coverage at Cedar Grove and Madison

Two very small areas of the state received much more thorough coverage than others: Cedar Grove in Sheboygan County and Picnic Point



in Madison. At Cedar Grove, Helmut and Nancy Mueller spent the entire season with their crew banding migrants and recording what they could of the birds which were in the area or flying over the banding station. In Madison, Steven Curtis and Paul Krombholz undertook a project for a University of Wisconsin ornithology class which involved a daily census of the birds on various parts of Picnic Point.

According to Mueller, it was an "exceedingly poor spring for migration at Cedar Grove. Generally poor weather for the production of 'waves' combined with an incredible preponderance of easterly winds (which blow the birds away from the lakeshore) gave us the poorest April we have ever seen. May was only slightly better. We saw only a few Myrtles and did not catch a single one!"

With respect to another aspect of the season, however, Mueller's comments strongly support the general consensus of many observers that many passerines migrated late. Two years ago your seasonal editor mentioned the fact that there likely occurs every year along the Lake Michigan shoreline a sizable movement of some birds right up to the end of May and even into June. Normally this movement appears to be restricted mainly to the so-called "late" migrants, such as certain Empidonax, Philadelphia Vireo, and Connecticut, Mourning, and Canada Warblers. But Mueller notes that this year they "have some extraordinarily late migration dates listed for birds that commonly breed early in the area. These observations are, however, of migratory individuals, e.g. take the Blue Jay. A nest of Jays hatched here in late May. At the same time good numbers of Jays were still migrating." Certainly other observers could support anyone who wished to contend that migration was late for a number of passerines, e.g., Richard Bernard of Superior wrote that on June 5 there were "a number of common species which have not yet put in an appearance." Somewhat more normal for the Cedar Grove area might be Mueller's still "catching fair numbers of migrants when we closed the station on June 8—mostly Canada Warblers, Cuckoos, Empidonax, etc."

### Value of Day to Day Observations

The tremendous value of a study such as that of Messrs. Curtis and Krombholz in Madison—and it is a type which could be done by almost anyone—is that it keeps track carefully of the day to day fluctuations in the populations of a number of different species in one single area. Only by such a technique is it possible to obtain the data which permits one to correlate bird migration with weather phenomena. In the opinion of some, it may not provide all-inclusive and irrefutable data, but it is a worthwhile project nevertheless. All of their data were not available to your seasonal editor at the time this summary was being written, but their plot of the total number of warblers (excluding residents) present on each of the days of May presents a beautiful picture of the migration pattern of a number of passerine species during the month, correlating very nicely with the observations of many throughout the state. The first influx, a minor one, occurred May 2, building up to major proportions by May 4. May 8-14 in general was another period during which many birds were around, with a rather sharp drop on May 15-16. Especially striking was a large peak May 22-23, with a very dramatic departure by

the 24th. Others might consider a similar project in a small area, keeping track of the day to day populations of some of the more common species, and submitting their data in future years. Such data are meaningful, of course, only if those who gather the data are faithful enough to be on the job every day for a period of at least several weeks.

### **A Few More Gaps Filled**

We welcome to the reporting spring observers Richard Bernard and Janet Kozlowski of the Superior and Ashland areas. We also welcome back Carl Richter of Oconto County. The reports of these people, distinguished for their care and completeness, make valuable contributions to our knowledge of birds in northern Wisconsin. Without their observations, along with those of people like Donald Hendrick, Harold Lindberg, Norman Pripps, and Norman Stone, we would know precious little about what happens to our migrants after they leave more southern and central parts of the state.

### **Two Headline Events**

Of historic importance in the spring of 1963 was the successful nesting of the Hawk Owl in Douglas County, the first Wisconsin nesting of this species. The details of the observations of these birds and their fledging of two young have appeared in a paper by Richard F. Bernard and Bernard Klugow in **1963 Passenger Pigeon 47-50**.

Of a tragic nature was an event summarized as follows by Sam Robins: "Disaster struck resting waterfowl along the Mississippi River in early April as the ice broke up. At two spots along the Minnesota River in Minnesota, the severe cold weather of mid-winter caused leakage in storage tanks that loosed thousands of gallons of oil that eventually polluted the waters when the rivers began to open up. No one knows how many hundreds or thousands of waterfowl lost their lives, but it would have been much worse had it not been for concerted efforts of many Minnesota residents who captured and washed oil-laden birds, and endeavored to neutralize the oil-laden water. Minnesota absorbed the major share of the disaster, for there were miles of water in the Minnesota and Mississippi Rivers before the pollution reached the Wisconsin border; but doubtless Wisconsin birds were also affected." A Minnesota newspaper clipping describes some of the efforts to wash the oil from the helpless ducks, and goes on to say that the death of those which could not be saved—by virtue of nationwide TV coverage—served to alert many of the general public to a problem frequently ignored: water pollution.

### **Migration in Neighboring States**

A glance at the August, 1963 **Audubon Field Notes** again indicates that observers near Wisconsin were seeing some of the same things that we were. Mueller's observation of a Long-billed Curlew at Cedar Grove in May—the first published Wisconsin record in this century—was not the only one in the midwest, for this species was seen in Illinois April 21 and also May 18 in Minnesota, where it is seen now only very rarely. Whimbrels also caused comment in areas other than Wisconsin. The Hawk Owls were still present in Minnesota in numbers in March, and one or two

remained at least as late as June. Elizabeth Degner's sighting of 250 Sandhill Cranes (an amazing number for spring migration) occurred on the same date as 650 were seen near Chicago. The White-eyed Vireo again this year was seen in more areas than usual north of its normal range, and Blue Grosbeaks were noted in Ohio May 9. Observers in a number of states near ours also felt that warbler numbers were low.

## LOONS THROUGH CORMORANT

**Common Loon:** The earliest birds appeared in far northern Ashland and Bayfield counties March 23 (Janet L. Kozlowski). A few more were seen by the end of March, and the period April 5-8 saw the spread of this species into most sections of the state.

**Red-throated Loon:** Lake Michigan provided the only report: Milwaukee and Ozaukee counties April 7 (Mary Donald).

**Red-necked Grebe:** One seen on Rock Lake in Jefferson County April 27 (Elizabeth Degner).

**Horned Grebe:** Appeared first in Pierce County March 4 (Sam Robbins) and in several southern and central counties around the end of March. Many reports were restricted to the middle few weeks of April. Peak at Cedar Grove, Sheboygan County, May 6 (Helmut Mueller), with birds remaining until May 19 in Brown County (Edwin D. Cleary).

**Eared Grebe:** Two reports, neither one documented: Racine County April 23 (Louise Erickson) and Goose Pond in Columbia County April 27 (Degner).

**Pied-billed Grebe:** March 17 arrivals in Dane (Mary Walker, Tom Ashman) and Jefferson (Degner) counties. Within a week individuals had been sighted in most sections of the state, although widespread distribution did not occur until the end of the month.

**White Pelican:** Douglas County May 18 (Richard Bernard).

**Double-crested Cormorant:** First seen April 6 in Madison (Daryl Tessen) and last on May 29 in Douglas County (Bernard).

## HERONS, SWANS AND GEESE

**Great Blue Heron:** Appeared March 19 at Cedar Grove (Mueller), with the next observations March 22-26, in a great many areas. Almost all sections of the state were represented by records by the end of the month.

**Green Heron:** Early reports in Racine County April 17 (Bill Weber) and in Waukesha (John Bielefeldt) and Rock (David and Marion Stocking) counties April 21. Seen in several other southern counties April 28-29, but no widespread occurrence until the first week of May. A nest reported in Lincoln County May 16 (Donald J. Hendrick).

**Little Blue Heron:** Racine County April 20 (Weber) until May 6 (Erickson), a "bright blue all over" adult seen by half a dozen observers; Horicon Marsh April 21 (William D. Carter); Waukesha County May 25 (Bielefeldt), another adult, in the same binocular field simultaneously with Great Blue and Green Herons and a Common Egret.

**Common Egret:** Seen first at Horicon Marsh March 30 (Ed Prins et al.), with a number present there April 6 (Leta D. McMaster). Dane County April 9 (Walker), and four other counties April 15-17. Had reached Burnett County in the north by April 25 (Norman R. Stone). Of the 14 counties reporting this species during the spring, only the northeastern ones were not represented. One reported nesting in a rookery near Fox Lake, Dodge County (Dr. and Mrs. R. B. Dryer).

**Snowy Egret:** Well-documented reports from Bayfield County April 19 (Kozlowski) and Waukesha County April 27 (Bielefeldt).

**Black-crowned Night Heron:** The earliest report came from Lincoln County in the north on March 29 (Hendrick), with other observations scattered throughout the remainder of the season. Several nesting in the Fox Lake rookery (the Dryers).

**Yellow-crowned Night Heron:** One bird appeared at the site of last year's nest in Racine County April 15 (John Shreve) and remained through the spring season. Dane County April 21 (Ashman); Columbia County April 24 (Therman Deerwester); Ozaukee County May 13 (Milwaukee May Count); Horicon Marsh May 18 (May Count) and May 25 (Richard A. Hunt); Kenosha County June 1 (Weber), a pair nesting.

**Least Bittern:** Five in Horicon Marsh April 27 (Degner). No other reports until the middle of May, with observations in only four other counties.

**American Bittern:** First seen in Oconto County April 2 (Carl H. Richter) and next in another northern county April 12 (Burnett, Stone). Observers reported a few more by the middle of April, but no widespread influx occurred until almost the end of the month. None seen all spring in Milwaukee County (Donald).

**Mute Swan:** Wisconsin's second bird of this species was seen and photographed in Columbia County April 14 (James F. Fuller). Details in 1963 Passenger Pigeon 27.

**Whistling Swan:** Cleary reports the first birds in Brown County, on March 15, with scattered observations from many southern counties until the end of March. First arrival in a northern county was March 27 (Burnett, Stone). Marked movement March 28-29 is indicated by a peak of 600 noted at Cedar Grove March 28 and considerable numbers March 29 in Pierce County (Robbins) and Oconto County (Richter). Other peaks mentioned were April 3-6. Most departures occurred before the end of April, but birds lingered into May in 9 counties. One banded bird observed in Oconto County May 19 (Richter), one in Racine County May 23 (Robert and Louise Erickson), and still present May 31 in Brown County (Cleary).

**Canada Goose:** Present at the beginning of March in Brown (Cleary), Ashland (Kozlowski), Outagamie (Tessen), and Rock (several observers) counties. Migrants appeared in several areas March 9-10, with many counties reporting the species by the middle of March. Had reached Burnett County by March 24 (Stone) and Lincoln County by March 26 (Hendrick). Of the peaks mentioned, five were March 22-24 and two were April 24-27.

**White-fronted Goose:** Five flying up the Mississippi River at Prescott in Pierce County March 29 (Robbins). Seen the same day (the Dryers) and the following day (Prins et al.) at Horicon Marsh, with a bird present there also May 1-15 (Hunt).

**Snow Goose:** Appeared March 24 in Jefferson (Bielefeldt, Degner) and Rock (Melva Maxson) counties. Only three April reports and four May reports, the last from Burnett County May 19 (Stone).

**Blue Goose:** Arrivals same as Snow Goose, although there were more April reports of this species. The only May report was from Burnett County May 6 (Stone), except for a bird which was at Goose Pond in Columbia County quite late, for the second year in a row (several observers).

## DUCKS

**Mallard:** First northern reports March 23-26, except for Ashland County March 1 (Kozlowski). Young present May 24 in Lincoln County (Hendrick).

**Black Duck:** Arrivals same in north as Mallard. Numbers in Bayfield County decreased sharply during March (Kozlowski). A pair was seen with 14 young in Outagamie County May 4 (Tessen).

**Gadwall:** Present March 1 in Columbia (William Hilsenhoff) and Outagamie (Tessen) counties. A pair seen in Racine County March 18 (the Ericksons), with further arrivals March 23-24 and 29-31. Noted as present at the end of May only in Columbia County (Hilsenhoff) and at Horicon Marsh (McMaster).

**Pintail:** Present March 1 in Columbia County (Hilsenhoff), with a few more reports by the middle of March. Most arrivals March 21-24 and 28-31, although some observers in northern counties saw none until the end of April.

**Green-winged Teal:** Present March 1 in Outagamie County (Tessen). After an appearance in Racine March 18 (the Ericksons), the next arrivals of this species were March 24-26, including some as far north as Burnett County (Stone). As with many other puddle ducks, many birds showed up in the last few days of March. The only peaks noted were April 5-10. Present at the end of May in both northwestern and southeastern counties.

**Blue-winged Teal:** Except for a March 18 Waukesha County observation (Ed Peartree), this species also arrived mainly March 24-25 and the last few days of March. First northern reports March 31 (Oconto County, Richter) through April 4. A nest with 4 eggs was found south of the village of Horicon April 29 (Harold Mathiak).

**American Widgeon:** Main arrivals as for few preceding species. First seen March 7, in Racine County (Erickson). Reached Burnett County March 24 (Stone). Had departed from most areas by mid-May.

**Shoveler:** One in Racine County March 12 (the Ericksons), and other arrivals the last week in March. Few northern reports, and those stretched from mid-April to mid-May.

**Wood Duck:** March 4 (Jefferson County, Degner) and March 12 (Racine County, Erickson) birds are both so early that they may well have wintered. Influxes March 24-26 and 29-31, reaching most areas. A nest in Oconto County contained 10 eggs April 20 (Richter).

**Redhead:** First arrival March 16, in Racine County (the Ericksons), with most others the last week in March, although generally the bird was not seen in the north until April 8 (Lincoln County, Hendrick) or after. Still in St. Croix County May 17 (Robbins) and Douglas County May 18 (Bernard), and at the end of May in Columbia County (Hilsenhoff) and at Horicon Marsh (McMaster). Robbins found only 11 birds of this species in St. Croix County all spring.

**Ring-necked Duck:** Three in Racine County March 12 (Weber); Dane County March 21 (Walker); seven other counties March 23-25, including Burnett (Stone). Present in five counties at the end of May.

**Canvasback:** Present in Racine County March 1 (Erickson). Arrived March 16 in Winnebago County (Tessen) and in many southern counties the last week in March. Very few reports from more northern areas: St. Croix County March 28 to May 17 (Robbins, only four individuals all spring in the county), Douglas County April 16-18 (Bernard), and Ashland and Bayfield counties April 30 to May 22 (Kozłowski, latest departure from state).

**Greater Scaup:** Reported from 13 counties, all of which border the Mississippi River or Lakes Michigan or Superior, except for Jefferson (March 23, Degner) and Dane (March 25, Walker). Robbins wonders if Greaters might migrate in general later than Lessers, based on later arrival dates and a larger proportion of Greaters present in May. Except for an earlier peak of Greaters in Racine County (Erickson), this year's data might support such an idea, since about half of the arrival dates of Greaters in the counties where they were seen are later than the dates on which Lessers appeared (and in three of the rest, both species had wintered). Departed May 24 from Douglas County (Bernard).

**Lesser Scaup:** Scattered arrivals until the last week in March, when observers in all but a few northern areas had sighted this species. More general influx into northern counties noted the first week of April.

**Common Goldeneye:** Not recorded in some northern areas until early April, although present in Ashland and Bayfield counties March 1 (Kozłowski). If observers were accurate in filling out their field notes forms, then birds were still present in four southern counties at the end of May.

**Bufflehead:** Noted March 5 in Waukesha County (Peartree) and March 18 in Columbia County (the Dryers). Lake Michigan peaks (March 23 at Cedar Grove, Mueller; March 25 in Racine County, Erickson) coincided with a number of inland arrivals. First migrants did not reach northern counties until nearly the second week in April, and inland peaks were April 9-20. Few May reports, the last from Bayfield County May 21 (Kozłowski).

**Oldsquaw:** The only report away from Lake Michigan was one female in Ashland County March 21 (Kozłowski). Still at Cedar Grove May 26, where there was a peak of 1,000 April 28 (Mueller).

**Harlequin Duck:** After having been seen in Racine County in December and January, reappeared April 3 and remained until May 6 (Erickson et al.). This is the second year in a row this species has been observed in Racine County.

**White-winged Scoter:** May 18, Douglas County (Bernard).

**Surf Scoter:** Last year this species was recorded in Wisconsin for the first time in spring. This year reports come from three areas, two inland. First seen near Janesville in Rock County April 8-12 (Mrs. Stanley Anderson, June Ohm, Maxson, Bernice Andrews, Frances Glenn, J. Harwood Evans, and several others), then a little over a week later at Beaver Dam Lake in Waukesha County April 20-21 (Bielefeldt, the C. E. Nelsons, the Paul Hoffmanns). Both these birds were first year males, and could conceivably have been the same bird (Mr. Nelson commented that the Cattle Egret which stayed several weeks on their farm—which is near Beaver Dam Lake—a few years ago had appeared there a short while after one had been in the Janesville area), although there is no basis for deciding. One seen also in Dunn County May 24 (Robbins). Robbins' bird was seen from the greatest distance, but afforded good enough looks to establish scoter shape, including the "nobby" effect at the base of the bill, the "uniformly dark" coloration, a "light patch behind the eye," and lack of white wing patches when it flapped its wings. The Waukesha County bird exhibited a "brilliantly colored bill and white nape patch, black body coloration. . . . No white patches on



wings" (Bielefeldt), the Janesville bird an "orangy red and white" beak "with black markings on each side" (Ohm).

**Common Scoter:** A female was seen in the Racine Harbor March 17 at a distance of 40 yards by the Ericksons, who noted "white cheeks, dark cap, dark front" and that it was "larger than a Ruddy."

**Ruddy Duck:** First migrant March 16 in Winnebago County (Tessen), with other arrivals in a variety of places about one week later. The end of May found birds present only at Horicon Marsh (McMaster) and in St. Croix (Robbins) and Columbia (Hilsenhoff, the Dryers) counties.

**Hooded Merganser:** Nearly all birds appeared March 22-31, with only a few observers in northern counties not noting arrivals until about a week later. Seen laying eggs in a nest box near Allenton in Washington County April 11 (Mathiak). Few May reports, with only two stragglers in southern counties at the end of May (Outagamie, Tessen; Waukesha, Bielefeldt).

**Common Merganser:** A few had reached northern counties by the end of March (Lincoln, Hendrick; Douglas, Bernard). No real pattern to the arrival dates.

**Red-breasted Merganser:** Arrivals and departures scattered, with four peaks reported falling in the period March 30 to April 13. Latest date in a southern county was April 23 (Rock County, Andrews and Glenn).

## VULTURE, HAWKS AND GROUSE

**Turkey Vulture:** Seen March 24 in Pierce County (Robbins), March 25 in Milwaukee County (Donald), and March 29 in two northern counties (Douglas, Bernard Klugow; Marinette, Hilsenhoff). May reports from only 7 counties, mostly western.

**Goshawk:** Reported in Pierce County March 24 (Robbins) and at Cedar Grove March 25-26 (Mueller). An undocumented observation from Racine County May 8 (Bob Fiehweg fide Erickson).

**Sharp-shinned Hawk:** An early sighting March 5 in St. Croix County (Robbins). Noted at Cedar Grove March 29 to May 21 (Mueller), with a peak of 50 on April 20. Most other arrival dates April 17-21 probably reflect a time of major movement.

**Cooper's Hawk:** Rock County March 18 (Maxson); Cedar Grove March 23 to May 20, with a peak of 11 on April 21 (Mueller). Reported in Iron County March 24 (Norman Pripps), although not noted elsewhere in northern counties until May.

**Red-tailed Hawk:** Did not reach some northern areas until the end of March.

**Red-shouldered Hawk:** First movement apparently March 16-17, with other periods March 23-24 and 30-31, if grouped arrival dates have significance.

**Broad-winged Hawk:** Noted very early in Columbia County March 27 (the Dryers), somewhat later in Dane County April 6 (Hilsenhoff). Peak dates reported in different parts of the state do not agree, although April 20 is mentioned by 4 observers. Noticeable movement in Pierce and St. Croix counties April 25-27 (Robbins). Last migrants at Cedar Grove were May 22 (Mueller).

**Swainson's Hawk:** Two observed near Roberts in St. Croix County May 8 (Robbins); one banded at Cedar Grove May 22 (Mueller).

**Rough-legged Hawk:** The dates on which this species was noted at Cedar Grove (March 20 to April 20, Mueller) bracket most of the arrivals and departures reported, although there were several May dates, as usual.

**Bald Eagle:** The only reports from south of the central part of the state were from Horicon Marsh March 22 (Carter) and Cedar Grove May 3 (Mueller).

**Marsh Hawk:** Arrival dates bunched on each of the weekends in March, with the period March 22-25 bringing birds to most reporting northern areas. Migratory movement still evident at Cedar Grove May 31 (Mueller).

**Osprey:** The migration at Cedar Grove occurred from April 2 through the end of May. Northern observers reported birds by April 20.

**Peregrine Falcon:** Hendrick reports his first ever from Lincoln County April 11; Ashland and Bayfield counties April 20 (Kozlowski); Vernon County May 12 (Howard Young); Racine County (Fiehweg fide Erickson, date uncertain).

**Pigeon Hawk:** Racine County April 8 (Weber, Mark Madsen); Brown County May 19 (Elmer W. Strehlow); four intervening dates.

**Sparrow Hawk:** Perceptible migration by mid-March, reaching Lincoln County (Hendrick); by March 24 a number of northern observers had noted birds. Peaks at Cedar Grove (71, Mueller) and in Racine County (the Ericksons) April 17. Kozlowski calls this the most common hawk she observed during the season in Bayfield County.

**Ruffed Grouse:** An unusual observation in Waukesha County May 15, when Bielefeldt noted one standing at the edge of a wooded road. He saw its distinctive shape sitting and after it had flown into a tree, and also determined its size as intermediate between that of a Gray Partridge and a Ring-necked Pheasant.

**Greater Prairie Chicken:** Harold Lindberg flushed two from a field in Marinette County April 13, subsequently watched them booming.

**Sharp-tailed Grouse:** Throughout the period in Burnett County (Stone); Douglas County (March 22, Robbins, Klugow; May 11, Bernard); Oconto County May 18 (Alfred S. Bradford).

**Bobwhite:** Only four reports. St. Croix County (Robbins); Wood County (G. Stout). Less in Vernon County (Viratine E. Weber). Heard May 3 and 11 in Racine County (Erickson).

**Gray Partridge:** All reports again were from southeastern counties, except for St. Croix (Robbins). "Doing well again this year" in Outagamie County (Tessen).

## CRANES, RAILS AND COOTS

**Sandhill Crane:** Degner observed three flocks totaling 250 birds in Jefferson County March 28. Had reached Burnett County by April 1 (Stone). Some other counties—other than breeding areas—reporting were Waupaca April 13 (Mrs. Russell Rill), Racine May 5 (the Ericksons), Dodge May 9 (Horicon Marsh; Carter, Hunt), and Marathon May 12 (Wausau May count, seen well).

**King Rail:** Seen only at Horicon Marsh May 9 (Carter) and Cedar Grove May 25 (Mueller).

**Virginia Rail:** Noted first April 26 in Racine (Weber) and St. Croix (Robbins) counties. May reports from 7 other counties.

**Sora:** Appeared April 19 in St. Croix County (Robbins) and April 20 in Racine (Weber) and Waukesha (Bielefeldt) counties. Had spread over most of the state by May 9.

**Yellow Rail:** Robbins heard one May 7 in the same wet meadow where he had heard one in April, 1961 (St. Croix County).

**Common Gallinule:** The earliest report by far was from Winnebago County April 13 (Tessen), with 5 more arrivals noted the last week in April.

**American Coot:** Present in Dane County March 1 (Hilsenhoff), with scattered early migrants through mid-March, the first in Racine County March 12 (Weber). Many arrivals the last week in March, reaching all sections of the state.

## SHOREBIRDS

**Semipalmated Plover:** The earliest report by far was in Douglas County April 23 (Bernard); this is as early as this species has ever appeared in Wisconsin. The next arrivals were May 3, in Columbia County (Hilsenhoff), with birds appearing in a fair number of other southern counties within the next few days. By mid-month, observers in northern counties had noted their first migrants. There were reports from quite a number of areas the last few days of May, and at Cedar Grove birds were present still on June 8 (Mueller). N. R. Barger (Dane County) indicated a "good flight."

**Piping Plover:** A single bird was seen by many observers in Racine County May 11 (Prins et al.) to May 23 (Weber, Erickson).

**Killdeer:** Present March 1 in Winnebago County (Tessen), appearing next in Waupaca County (Florence Peterson) March 6. Quite a few reports by mid-March, but it was not until March 22-24 that an influx spread over the entire state.

**Golden Plover:** Noted in Columbia County April 14 to May 24 (peak May 7, Hilsenhoff) and also in Chippewa County April 17 (Dr. Charles A. Kemper) to May 26 (WSO convention), St. Croix County April 16-28 (Robins), Dane County April 21 (Ashman) into May (Walker), and in Racine County, a peak of 8 on May 23 (Weber, M. Burroughs).

**Black-bellied Plover:** An incredibly early report from Chippewa County April 17 (Kemper). Seen also April 29 in Columbia County (the Bargers), with the next location reporting being Burnett County May 12 (Stone). Most others seen within the next week. Peaks mentioned were May 23-24. Remained at Cedar Grove until June 7 (Mueller).

**Ruddy Turnstone:** Arrived May 10 in Brown County (Cleary) and May 11 in Winnebago (Tessen) and Racine (Prins et al.) counties. Had reached Ashland and Bay-

field counties by May 14 (Kozlowski). Peaks mentioned varied from the earliest dates to the latest, although the largest numbers reported were on May 29 in Racine (Fred Lesker and Prins, 250) and Douglas (Bernard, 200) counties. Still to be seen in June in several counties.

**American Woodcock:** Appeared in five counties March 22-24, first in Racine County (Dr. von Jarchow). Another influx at the end of March. Not reported from some northern areas until mid-April. Richter reports nests containing four eggs in Marinette County April 21 and in Oconto County May 7.

**Common Snipe:** First noted in Dane County March 23 (Hilsenhoff), with a gradual spread over the state within the following month. Observers noted birds in four southern counties at the end of May.

**Long-billed Curlew:** A single bird observed May 27 at Cedar Grove by Mueller constitutes this century's first published Wisconsin record of this species. "By the Wayside" supplies all the details.

**Whimbrel:** Kozlowski observed one in Bayfield County May 19-20 (see "By the Wayside"); another in Racine County May 29 (Prins and Lesker).

**Upland Plover:** Very early in Fond du Lac County April 2 (Tessen); next noted about mid-April. Observers in 15 of the 20 counties reporting this species noted none until May.

**Spotted Sandpiper:** Widespread appearance April 26-29, as far north as Douglas County (Bernard).

**Solitary Sandpiper:** Seen very early in Racine County April 15 (Mrs. Weber fide Erickson), with three scattered reports in the following week. A noticeable influx the last few days of April, with most sections noting birds by May 9. Last seen May 23 in St. Croix (Robbins) and Racine (Erickson) counties.

**Willet:** A fair number of reports: Columbia County May 3 (Ashman, Peartree), Ozaukee County May 13 (Donald), Bayfield County May 14 (Robbins) and May 21-22 (Kozlowski), Milwaukee County May 23 (Donald), and Horicon Marsh May 28 or 29 (McMaster).

**Greater Yellowlegs:** Noted first in Dane County March 29 (Walker), with a trickle of observations the next two days. Had reached Burnett County by April 10 (Stone), with a sizable influx April 12-16, reaching essentially all parts of the state. Peak dates noted varied widely, falling generally in the periods April 16-18 and May 2-6. Still at Cedar Grove May 24 (Mueller).

**Lesser Yellowlegs.** Appeared in Rock County March 25 (Andrews and Glenn). Subsequent arrivals rather spread out, not reaching northern counties until April 18-20. Peaks fell in the very general periods April 16-24 and May 4-10. Still in several southern counties May 29-31.

**Knot:** This species, seen rarely but fairly regularly on Lake Michigan in the fall, is usually noted less often in spring, and spring birds in some years occur more inland. The four reports this spring indicate that the species migrates quite late: Horicon Marsh May 20 (Carter), Douglas County May 29 (Bernard), Chippewa County June 1-3 (Kemper), and Cedar Grove June 5 (Mueller).

**Pectoral Sandpiper:** Noted first in Rock County March 31 (Mrs. Joseph Mahlum), with scattered birds appearing in five more counties within the next week. Observers from the central part of the state recorded arrivals by mid-April, but no migrants appeared in the far northern counties until May 18-19, by which time departures had been noted in all southern counties. Peaks were very scattered, ranging from April 10-14 in Columbia County (the Dryers, Hilsenhoff) to May 29 in Marinette County (Lindberg).

**White-rumped Sandpiper:** This is another species which migrates late: Brown County May 21 (Cleary), Ashland and Bayfield counties May 23 (Kozlowski), Columbia County (Hilsenhoff) and St. Croix (Robbins) counties May 24, Douglas County May 29 (Bernard), and six birds in Chippewa County June 12 (Kemper), two days later than this species has been seen since 1919. Peak numbers in Columbia County May 31 (Hilsenhoff).

**Baird's Sandpiper:** Noted in Columbia County May 5 (Peartree) and on the Racine and Beloit May counts May 11-12. Seen also in Dane (Ashman), Ashland and Bayfield (Kozlowski), and Columbia (the Dryers) counties May 14; Outagamie County May 18 (Tessen); Waukesha County May 19 (Charlotte McCombe); Cedar Grove May 26 (Mueller); and Jefferson County May 29 (Degner).

**Least Sandpiper:** Two April reports: Jefferson County April 13 (Degner) and Chippewa County April 16 (Kemper). A number of birds arrived May 3-4, although migrants dribbled in until mid-May, by which time they had reached northern counties. Although most observers reported departures by the end of May, Mueller noted that the peak at Cedar Grove was June 3.

**Dunlin:** The first observation was in Marinette County in the north, on May 7 (Lindberg). May 9-11 saw the arrival of this species in a fair number of other localities, although there was no period of general statewide appearance. Most peaks May 18-22. Still at Cedar Grove June 8 (Mueller).

**Dowitcher:** Six Long-billed were identified in Dane County April 30 (Ashman) and two in Columbia County May 9 (Hilsenhoff); six Short-billed in St. Croix County May 17 (Robbins). Birds unidentified as to species seen in 13 additional counties, as late as May 29 (Ashland and Bayfield counties, Kozlowski). Peak of 60 in Racine County May 13 (Weber), with other peaks May 18. "Good flight" noted of this and of the preceding species in Dane County (Barger).

**Stilt Sandpiper:** An unusual number of reports: Columbia County May 6-7 (the Dryers); Rock County May 11 (the Stockings) through May 23, when 12 were present (Andrews and Glenn); Jefferson County, three present May 14-19 (Degner); and Ashland and Bayfield counties May 19 (Kozlowski).

**Semipalmated Sandpiper:** Noted early in Rock County May 1 (Andrews and Glenn) and in Racine County May 4 (Erickson) and Columbia County May 5 (Peartree), although general arrival was not until May 11, when birds appeared in four more widely scattered counties, including Lincoln (Hendrick). Remained as usual into June in several areas. Peak May 31 in Columbia County (Hilsenhoff).

**Marbled Godwit:** Several observers commented on the fact that they had thought (one had even been sure) upon viewing a godwit this spring that they were observing a Marbled. Somewhat to their surprise, when the particular bird they were watching took flight, the prominent wing stripe and black and white tail bands of the Hudsonian appeared. People who are familiar with both species can distinguish a female or drab male Hudsonian from a Marbled without much difficulty, but the majority of us have not seen enough of either species to establish with certainty the identity of a uniformly colored sitting bird. Therefore, we ask that future reports of Marbleds be accompanied either by a statement that the bird has been seen well in flight or that the observer is familiar with both species. There were, this year, the following reports of Marbleds: St. Croix County April 16, the earliest this species has even been seen in spring (Robbins); Dane County April 21 (Ashman); Brown (Strehlow) and Columbia (the Dryers) counties May 19; Chippewa (Kemper) and Columbia counties May 20.

**Hudsonian Godwit:** This year produced the most phenomenal invasion of this species ever recorded in Wisconsin. Somewhere between 45 and 60 birds were seen by 15 observers in 12 counties, with a peak of 18 in Chippewa County May 20 (Kemper). First reported May 1, in St. Croix County (Robbins), with nearly all other arrivals May 13-19. Two still in Douglas County June 3 (Bernard).

**Sanderling:** Seen earliest (May 7, Ashland and Bayfield counties, Kozlowski) and in greatest numbers (600 in Douglas County May 29, Bernard) on the shores of Lake Superior, and latest on Lake Michigan (Cedar Grove June 8, two days later than this species has lingered before, Mueller). Peaks in southern counties were May 22-24. Few inland reports: Beloit May count May 12, Horicon Marsh May 20 (Carter), and Columbia County May 26 (Hilsenhoff).

**Wilson's Phalarope:** An exceptionally early report from St. Croix County April 17 (Robbins); the next arrivals were during the last week in April. Birds appeared in far northern counties May 7-9. Still present near the end of May in several southern localities.

**Northern Phalarope:** Dane County May 15 (Hilsenhoff); Columbia May 19-22 (the Dryers, Ashman, Barger); Brown County May 19-29 (Strehlow, Cleary).

## GULLS AND TERNS

**Great Black-backed-Gull:** One immature bird was seen March 1 in the Racine Harbor by the Ericksons. See "By the Wayside."

**Herring Gull:** Very decided movement into northern counties March 26-28.

**Ring-billed Gull:** The first detectable movement inland was March 16-18, with observers more generally reporting arrivals March 23-25; the only two peaks reported were during this latter period. This spring, birds of this species were seen in more northern counties than has been the case for several years.



**Laughing Gull:** Between May 11 and June 8 a number of observers saw two or three individuals of this species in Racine County (Prins, Erickson et al.); one of the birds was in mature plumage. This species has now been recorded in Wisconsin in three of the last four springs, always in May and usually late in the month.

**Franklin's Gull:** Marinette County May 9, with a peak on May 16 (Lindberg); Chippewa County May 25-26 (various observers, WSO convention).

**Bonaparte's Gull:** Noted first in Racine County March 29 (the Ericksons), and inland a few days later (Dane County April 3, Ashman). First appeared in the north on April 17 (Ashland and Bayfield counties, Kozlowski), although no sizable numbers appeared in northern counties until April 28. Peaks ranged from April 11 (Milwaukee County, Donald) to May 27 (Ashland and Bayfield counties, Kozlowski).

**Forster's Tern:** Seen first in Adams County April 22 (Robbins), and in Racine County the next day (Erickson); several other April reports. Noted in Bayfield County May 14 (Robbins) and in Douglas County May 29 (Bernard). Peak in Racine County was April 26 (Erickson) and in Winnebago County, May 4 (Tessen).

**Common Tern:** Although this species is seen regularly and is more widely distributed than the preceding, nearly every year there is a peculiar pattern of arrival dates which may indicate that some people arbitrarily call their first tern of the year a Common, without careful identification. Frequently one or a few scattered migrants are noted one or two weeks before the general arrival of the species. It is these birds which could well be Forster's rather than Common, particularly since the more general arrival of the Forster's nearly always precedes that of the Common by a few days to a week, both on Lake Michigan and inland. We urge all observers, therefore, to look very carefully at their first white terns, so that these arrivals may be identified and recorded correctly. This year the first report came from Brown County April 19 (Cleary), with the general arrival on Lake Michigan April 26 (Racine County, Erickson and Fiehweg; Cedar Grove, Mueller). May 1 brought birds to three counties in the far north, and within a week very few sections of the state had not reported this species. Peaks were May 9 (Cedar Grove, Mueller), May 15 (Racine County, Weber and John Sæetveit, 15,000), and May 20 (Marinette County, Lindberg). Still present May 31 in at least seven counties.

**Caspian Tern:** Seen in Marinette County in the north nearly a week earlier than elsewhere, April 29 (Lindberg). Next in Jefferson County May 4 (Degner). Noted in Douglas County May 29 (Bernard) and in Pepin County May 30 (Robbins), and on other dates in May in Brown, Dane, Racine, Sheboygan, and Winnebago counties.

**Black Tern:** A very early report from Jefferson County April 17 (Degner); the main vanguard appeared April 28-30. Birds reached most reporting northern counties by May 9-11. Peaks mentioned were May 9 in Dane County (Hilsenhoff) and May 25 in Marinette County (Lindberg).

## CUCKOOS THROUGH WOODPECKERS

**Mourning Dove:** Arrival dates show apparent movement March 13-14, reaching some central counties; March 23-24; March 28-31, reaching Burnett County (Stone). Most northern observers noted none until mid-April. Peaks were March 30, April 13-17, and April 26-28.

**Yellow-billed Cuckoo:** A few rather early reports from southern counties, the first May 9 in Dane County (Ashman). The most northern counties reporting were Chippewa, Polk, St. Croix, and Waupaca. As usual, this species either did not appear or did not become common in many areas until early June.

**Black-billed Cuckoo:** First banded at Cedar Grove May 8 (Mueller), with arrivals in four counties the next day, as far north as Chippewa County (Kemper). Other birds appeared in 13 more counties through the rest of May and into the first week of June.

**Screech Owl:** The last three spring seasons have produced reports of this species from a total of only 11 counties!

**Great Horned Owl:** Nest in Kenosha County March 10 (Weber) and in Dodge County March 30 (Prins et al.) and April 29 (the Dryers).

**Snowy Owl:** Douglas County March 2 (Bernard); Brown County March 9 (Cleary); Milwaukee County March 10 (Donald).

**Hawk Owl:** See 1963 *Passenger Pigeon* 47-50, for an account of the first known nesting of this species in Wisconsin, following the phenomenal fall and winter invasion of parts of the northern United States and southern Canada.



**Long-eared Owl:** Early March in Burnett County (Stone); eight all through March in Racine County (Weber); March 10 to April 14 in Milwaukee County (Strehlow); March 12 to April 4 in St. Croix County (Robbins); March 15 in Dane County (Walker); May 12 on Beloit May count.



ONE OF TWO HAWK OWLS HATCHED AND FLEDGED  
IN DOUGLAS COUNTY IN 1963

PHOTO BY MARTHA LOUND

**Short-eared Owl:** March 26 at Horicon Marsh (Carter); until March 31 in Waukesha County (Bielefeldt), April 10 in Racine County (Weber), and May 2 in St. Croix County (Robbins).

**Saw-whet Owl:** The only report was from St. Croix County May 16 (Robbins).

**Whip-poor-will:** Noted first in Outagamie County April 25 (Bradford), with most other arrivals May 2-4, when birds appeared in all parts of the state. Robbins commented that they were scarce in St. Croix County; he knew of their presence in only one location.

**Common Nighthawk:** Waupaca County provides the first report, May 3 (Rill). Scattered arrivals May 6-10, but many observers commented on the lateness of this species. The first observation in the north was May 20, in Lincoln County (Hendrick), but generally, migrants did not reach northern and even some central areas until the last week of May.

**Chimney Swift:** Noted early in Sheboygan County April 16-17 (Harold Koopman, Mueller). Most peaks in southern counties were May 14-15.

**Ruby-throated Hummingbird:** First pushed into southern counties May 7-9, with another influx about a week later, reaching Marinette County (Lindberg). Said to be "less numerous" in Vernon County (Viratine Weber).

**Yellow-shafted Flicker:** A great movement the last week in March is indicated by arrivals in 18 counties. Scattered earlier reports, including Burnett County March 18 (Stone). Peaks mentioned were March 31, April 4-8, and in the north, two on April 20.

**Red-bellied Woodpecker:** A fair number reported from northwestern counties, including Burnett (Stone). No northern reports from the eastern tier of counties, but in the central part of the state this species was noted in Waupaca (Peterson) and Langlade (Antigo May count) counties.

**Red-headed Woodpecker:** The first major movement appeared to be the first few days of May, perhaps a bit later than usual.

**Yellow-bellied Sapsucker:** Noted in Pierce County March 7 (Robbins) and in Dane County March 15 (Walker); very decided influx March 28-31. Another movement occurred April 6-8, reaching Lincoln County (Hendrick), where nesting was observed May 17.

## FLYCATCHERS AND SWALLOWS

**Eastern Kingbird:** An incredibly early bird was seen in Rock County April 10 (Glenn) and again April 21 (Andrews). Both observers had a good look, the white on the tail being easily discernible. Most arrivals were either May 4-5 or May 11, by which time birds had reached all parts of the state. Peaks May 20-23. Migrants were still to be seen June 3 at Cedar Grove (Mueller).

**Western Kingbird:** Seen at the 1961 nesting site in St. Croix County May 17 and 29 (Robbins).

**Great Crested Flycatcher:** Recorded in Marinette County April 29 (Lindberg), nearly a week before any other migrants were noted. In the span of less than a week (May 4-10) the species had blanketed the state. Said to be more numerous by Maxson (Rock County) and Stone (Burnett County, "unusually high population in the entire area").

**Eastern Phoebe:** Seen very early in Racine County March 5 (von Jarchow); next reports March 15 and 20 in Dane (Walker) and Waupaca (Peterson) counties. Nearly all other arrivals, statewide, were March 25-31.

**Yellow-bellied Flycatcher:** Aside from undocumented May count reports, the first arrivals were at Cedar Grove May 14 (Mueller) and in Ashland and Bayfield counties two days later (Kozlowski). Robbins noted only one all spring in St. Croix County, May 17. None seen in Dane County until June (Hilsenhoff), indicating how late this species migrates. Peaks at Cedar Grove also were very late (nine birds each on May 29 and 30), as was the departure date (June 6, Mueller).

**Acadian Flycatcher:** Banded in Rock County May 10, rather early (the Stockings). Seen at Wyalusing State Park in Grant County, where they nest commonly, on May 19 (the John Rossmillers and the C. A. Federers), and in Racine County May 21-22 (Erickson).

**Trail's Flycatcher:** All but three of the 14 reports indicate arrivals in the last half of May. Banded May 8 at Cedar Grove (Mueller) and seen in Racine County the next day (Weber). Peak at Cedar Grove June 2.

**Least Flycatcher:** Banded very early at Cedar Grove April 29; otherwise noted first in Vernon County May 3 (Weber) and only in scattered other areas the next few days. Had reached Chippewa (Kemper) and Lincoln (Hendrick) counties by May 8, and had spread generally through the state by May 11. Peak at Cedar Grove May 14 and in Lincoln County May 16.

**Eastern Wood Pewee:** Widespread appearance of this species was very late this year, 25 of 32 observers noting arrivals after the middle of May, nearly half of these being after May 20. First southern report was from Dane County May 9 (Walker), the first northern one from Douglas May 11 (Bernard). The only peaks mentioned were May 29.

**Olive-sided Flycatcher:** Noted first May 9 in Racine County (Erickson) and two days later in Douglas County (Bernard). Seen in 10 more counties during the rest of May.

**Horned Lark:** A very decided movement March 10-14 is indicated by the mention of two arrival dates, two peak dates, and three departure dates during that period.

**Tree Swallow:** The earliest birds appeared March 24 in Pierce (Robbins), Racine (George Prins), and Waupaca (Rill) counties, with many observers reporting arrivals March 30-31, as for north as Marinette and Oconto counties (Lindberg, Richter). Noted generally in the north April 6. Seven peak dates ranged from April 11 to May 3. Mrs. Earl Sauer (Waukesha County) remarked that there were "many more than in recent years."

**Bank Swallow:** April 17 in Racine (Fiehweg and Weber) and St. Croix (Robbins) counties; several other counties April 20. Considerable movement April 28 to May 1 produced observations from a number of northern counties.

**Rough-winged Swallow:** There were April 17 reports from Cedar Grove (Mueller) and from Racine (Erickson) and St. Croix (Robbins) counties; subsequent arrival dates follow no pattern. Very few noted in northern counties, those appearing May 5-11.

**Barn Swallow:** First seen in Waukesha County April 14 (Bielefeldt) and two and four days later in Marinette (Lindberg) and Lincoln (Hendrick) counties, respectively. Most arrivals were April 20-30.

**Cliff Swallow:** Four birds seen April 11 in Racine County are a day earlier than this species has been noted previously in Wisconsin (Erickson); seen also April 13 in Outagamie County (Bradford). Noted in Lincoln County by April 20 (Hendrick). There were a few other April dates, but most arrivals reported were in May. Peaks mentioned were May 14-15.

**Purple Martin:** Observed March 28 in Rock County (Maxson) and two days later in Jefferson (Degner) and Waukesha (Bielefeldt) counties. No detectable pattern among subsequent arrivals. Some birds reached northern counties in the first part of April, earlier than many observers in southern counties recorded their first migrants. An April 2 Chippewa County arrival is the earliest ever (Kemper). In general, however, one could say that this species appeared late. Peak of 900 at Cedar Grove April 20 (Mueller).

## JAYS THROUGH MIMIC THRUSHES

**Gray Jay:** Noted in Ashland (Hilsenhoff), Iron (Pripps), and Lincoln (Hendrick) counties.

**Blue Jay:** Peaks as follows: March 2 in Vernon County (Weber); May 3 in Dane County (Hilsenhoff, Thomas Soulen); May 8 at Cedar Grove (Mueller, 500) and in Ashland and Bayfield counties (Kozlowski); May 17 in Rock County (Andrews and Glenn). Hendricks reported them as "more abundant, in large groups" in Lincoln County. Still migrating the last week in May at Cedar Grove, although birds in a local nest there had hatched by then.

**Common Raven:** Reported from Ashland, Bayfield, Burnett, Douglas, Forest (not so common March 3, Richter), Iron, Lincoln (more common this year, Hendrick), Price, and Sawyer counties.

**Common Crow:** Peak movements reported were March 17 and 23 at Cedar Grove (Mueller, over 600 each day) and March 19 in Vernon County (Weber).

**Black-capped Chickadee:** Peak in Vernon County April 20 (Weber). Nests were reported in Oconto County (Richter, one egg May 2 and eight May 9) and in Jefferson County the last week of May, in an empty Bluebird house (Tom Belzer).

**Red-breasted Nuthatch:** Still common in Forest County March 3 (Richter). Few reports from southern counties, most of those from mid-March to mid-April, except for three May reports from Racine County, the last May 30 (Prins).

**Brown Creeper:** First northern report was from Oconto County April 6 (Richter), with several others April 14-15. Several nests in Oconto County April 25 (no eggs), and others with six or seven eggs on May 5 and May 8 (Richter). More than usual southern reports in May, as late as May 22 (Columbia County, Barger).

**House Wren:** Noted first April 17 in Columbia County (the Dryers) and in a number of other areas within the following week. Most northern reports were not until May. The three peaks mentioned were May 12-16.

**Winter Wren:** Recorded in 15 counties spread over the state, first in Oconto County March 31 (Richter). Most migration apparently occurred during the last half of April. Still in Dodge County May 18 (Prins et al.).

**Bewick's Wren:** One in Racine County April 12 (Weber); noted in St. Croix County May 5 and 17 (Robbins).

**Long-billed Marsh Wren:** Noted at Horicon Marsh April 27 (Degner) and in St. Croix County April 29 (Robbins). Had reached Burnett County by May 9 (Stone). The only other northern report was from Marinette County (May 24, Lindberg).

**Short-billed Marsh Wren:** Rock County May 1 (Mahlum); Cedar Grove (Mueller) and St. Croix County (Robbins) May 8; Burnett County May 9 (Stone). Within the next few days birds had been seen in eight more widely separated counties. Tessen reports that they did not appear in large numbers in Outagamie and Winnebago counties until June 1.

**Mockingbird:** Seen May 11 on the Racine May Count and May 12 on the Beloit May Count; also noted at Cedar Grove May 3 (Mueller).

**Catbird:** Appeared in Waukesha County April 27 (Bielefeldt) but not in other areas until May 3-6. In the north, there were two definite dates of arrival, May 11 and

16. Peaks in southern Wisconsin were May 10-16. Twelve killed at the Eau Claire TV tower May 23. Hendrick (Lincoln County) comments on numbers definitely being down from last year.

**Brown Thrasher:** The first report comes from Douglas County in the north, April 13 (Bernard), with the next week bringing birds to a number of southern counties. Noted in most areas by the end of April.

## THRUSHES THROUGH VIREOS

**Robin:** Migrants seen in a few areas March 10, including Lincoln County (Hendrick), although the most marked influx occurred March 15-16, with birds appearing in nearly all reporting areas within the following week. The six observers who commented on the status of this species agreed that numbers were definitely up, in some cases dramatically. Peak of 2,200 at Cedar Grove March 30 (Mueller). Other peaks March 20-25, March 29, and April 8.

**Wood Thrush:** An extremely early report from Marinette County April 21 (Lindberg); Dane (Walker) and Racine (Mrs. Arthur Stoffel fide Erickson) counties April 30. General arrival May 11-12.

**Hermit Thrush:** Seen in Milwaukee County March 21 (Donald). Decided movement the last two days of March, with the period April 20-22 providing the next and most pronounced migration. Banded at Cedar Grove May 14 (Mueller). None at all seen in Outagamie County (Tessen).

**Swainson's Thrush:** Rock County May 1 (the Stockings); several other areas May 3-4; peaks and movement into northern counties May 13-16. Still migrating at Cedar Grove June 3 (Mueller).

**Gray-cheeked Thrush:** First arrivals May 3-5; still at Cedar Grove June 4.

**Veery:** First noted in Waupaca County May 1 (Peterson). Reached many areas, including northern counties, May 11-15.

**Eastern Bluebird:** No agreement on the relative abundance of this species. Several observers report none or very few, others that the population is holding steady, still others that numbers are up. First influx March 23.

**Townsend's Solitaire:** See "By the Wayside" for a well documented report from Chippewa County April 10 (Kemper). This is only the third time this species has been seen in Wisconsin in spring.

**Blue-gray Gnatcatcher:** Waukesha County April 19 (Bielefeldt); Racine County April 28 (Fiehweg); May observations in six other counties, all southern except St. Croix (Robbins).

**Golden-crowned Kinglet:** Present March 1 in Dane and Waukesha counties. A few migrants appeared March 25-26, but many more were noted March 29-31. There may have been another mild push April 10. Peaks April 6 in Dane County (Hilsenhoff) and April 21 in Milwaukee County (Strehlow, 100). Still present in Milwaukee County May 5 (Strehlow). Total of only five all spring in St. Croix County (Robbins).

**Ruby-crowned Kinglet:** Noted in Iowa County March 24 (Erickson) and banded March 30 at Cedar Grove (Mueller). Otherwise, first arrivals were April 6 in southern counties and April 26-27 in northern counties. Peaks were April 16-17 and 26-27. Banded at Cedar Grove June 1 (Mueller), although most departures were by May 15-20.

**Water Pipit:** The only four reports were from Columbia County, a peak on April 28 (the Dryers); Chippewa County May 1 (Kemper); St. Croix County May 1-17 (Robbins); and Outagamie County May 4-11 (Tessen).

**Bohemian Waxwing:** Noted in Douglas County February 22-24 (Klugow) and in Racine County March 21, 27, and April 11 (Stoffel fide Erickson).

**Cedar Waxwing:** A minor influx apparently occurred March 21-23 which carried birds as far north as Marinette County (Lindberg). As usual, observers in many areas did not see migrants until into May. A peak in Waupaca County May 16 (Peterson) and at Cedar Grove May 21 (Mueller, over 900). Not common until early June in Lincoln County (Hendrick).

**Northern Shrike:** Seen March 10-11 in Dunn (Robbins), Jefferson (Degner), and Milwaukee (Strehlow) counties, and until March 25 in Marinette County (Lindberg).

**Loggerhead Shrike:** Noted in three counties March 27-31 (Pepin, Hilsenhoff; St. Croix, Robbins; Sheboygan, Koopmann). Had reached Douglas County April 4 (Bernard). Nesting in Kenosha County April 27, with five young observed May 30 (Prins et al).

**Starling:** Peaks mentioned were March 16-17, 22-23, and 27.

**White-eyed Vireo:** Banded at Cedar Grove May 4 and 23 (Mueller). Seen in Dane County May 2-8 (Hilsenhoff and many others) and May 28 (Ashman), and in Manitowoc County May 15 (Myron Reichwaldt, excellent write up).

**Bell's Vireo:** Noted outside its normal range, in Racine County May 19 (Weber fide Erickson). Reported the same day and later from the University Arboretum in Madison (Ashman, Hilsenhoff). Five heard in Trempealeau County May 30, in an area where six had been found a year ago (Robbins).

**Yellow-throated Vireo:** Appeared in Dane County May 2 (Ashman) and in Sauk County a day later (Peartree). Other arrivals did not follow a definite pattern.

**Solitary Vireo:** Noted earliest and latest at Cedar Grove (banded May 2 to 27, Mueller). Also seen May 2 in Outagamie County (Tessen). Quite a few arrivals May 4, but most others were quite spread out. Six areas reported departures after May 22.

**Red-eyed Vireo:** Seen very early in Madison May 2 (Barger) and in several other areas the next day. Very few reports until a week later. First northern report was from Marinette County May 13 (Lindberg), but general arrival there was not until May 27-29. Seventy-one killed at the Eau Claire TV tower May 23 (Kemper). Several observers said that this species did not become common until into June. Peak numbers banded at Cedar Grove were late, May 31 and June 6 (Mueller).

**Philadelphia Vireo:** Jefferson County May 4 (Degner). Only two other arrival dates were before mid-May. Banded June 7 at Cedar Grove, five days later than this species has previously been seen in spring (Mueller).

**Warbling Vireo:** Appeared April 27 in Dane County (Ashman, Hilsenhoff), with the next arrivals May 3-5, in many areas. Sauer (Waukesha County) comments: "many more than in recent years."

## **WARBLERS THROUGH BLACKBIRDS**

**Black-and-white Warbler:** Dane County April 27 (Hilsenhoff). Spread over the entire state May 3-11. Peaks scattered throughout the month, until May 22. A number of departures in southern counties as late as May 22-23.

**Prothonotary Warbler:** Joe Hickey writes of a male which for 10 minutes "fought its reflection in the window of our house here at Madison" on April 16, four days earlier than this warbler has ever appeared in the state. The few reports away from normal breeding range were from Milwaukee County May 12-13 (Strehlow, Donald) and from Marathon County May 12 (two seen well on Wausau May Count).

**Worm-eating Warbler:** The amazing total of six banded at Cedar Grove, April 27 to May 11 (Mueller). Seen May 4 and 11 in Racine County (Erickson, von Jarchow).

**Golden-winged Warbler:** Seen May 2 in Dane County (Walker) and in several other areas May 3-5. Very few northern reports. Departure dates mostly May 19-26.

**Blue-winged Warbler:** Noted May 3 in Dane County (Hilsenhoff) and in four more counties the next day. From St. Croix came the northernmost report (Robbins).

**Brewster's Warbler:** This hybrid was seen in Waukesha County May 11-13 (Dick Sharp, Norma Schmidt, Peartree) and in Dane County May 14 (Ashman).

**Tennessee Warbler:** A very few reports May 2-4, the first from Dane County (Ashman). The most pronounced influx occurred May 8, with perhaps another May 11. Quite a few birds noted in all parts of the state the last week in May. Peaks May 18-23, with 46 killed at the Eau Claire TV tower on the 23rd (Kemper).

**Orange-crowned Warbler:** Dane County April 27 (Hilsenhoff); other arrivals quite spread out. Noted first in Ashland and Bayfield counties May 22, when Kozlowski saw them "almost everywhere," practically "as abundant as Black-and-whites and Myrtles." Most departures were by mid-May, although they were still to be seen in Vernon County May 23 (Margarette E. Morse).

**Nashville Warbler:** Seen April 27-28 in Dane (Hilsenhoff) and Racine (Weber) counties. Many arrivals May 4, as far north as Lincoln County (Hendrick). Nearly all peaks May 8-11. Banded at Cedar Grove June 2 (Mueller).

**Parula Warbler:** Wholesale arrival May 4. Was seen "by the dozens" in Waukesha County May 12 (Peartree).

**Yellow Warbler:** First observed at Horicon Marsh April 27 (the Ericksons) and in several other areas April 30. Definite influx May 2-4, with most sections of the state reporting birds within the following week.



**Magnolia Warbler:** Racine County April 28 (Weber); several other counties May 4. Had reached most reporting northern counties by May 11-13. A peak was noted as late as May 30 at Cedar Grove (Mueller, nine banded), where a migrant was banded June 6. Departures generally were quite late, almost all the last week in May.

**Cape May Warbler:** Noted May 7 in Racine County (Fiehweg) and in scattered other locations the next few days. First northern reports were from Douglas County May 11 (Bernard) and Langlade County May 14 (Marillyn Soulen), with most other areas reporting birds within the next few days. Departures were quite without pattern, the latest being May 26 (Outagamie County, Tessen). Peak of 49 in Racine County County May 22 (Erickson).

**Black-throated Blue Warbler:** There were 11 reports from seven counties, from May 6 (Rock County, Maxson) to May 30 (Cedar Grove, Mueller). No reports from west of Dane County.

**Myrtle Warbler:** Seen March 24 in Pierce County (Robbins) and March 27 in Racine County (Stoffel). There were a few scattered observations until a rather general appearance April 14-17. Lingered until May 23-26 in quite a few southern counties. Peaks ranged from April 26 to May 22. Several observers commented on lateness of arrival, others on general scarcity. Only one seen all spring by Koopman; none banded at Cedar Grove, and seen there only May 17 and 19.

**Black-throated Green Warbler:** Dodge County April 27 (the Bangers). Lots of arrivals May 2-4. Had reached Oconto County by May 5 (Richter), but not other northern counties until May 11. Departures late, the last being June 4 (Rock County, Maxson).

**Cerulean Warbler:** Noted May 4 in Waukesha County (Bielefeldt), where it was seen "by the dozens" May 12 (Peartree) along with a huge wave of many species. Recorded May 9 at Cedar Grove, where it is very rarely encountered (Mueller).

**Blackburnian Warbler:** Arrival dates extremely scattered, the first in the south May 2 (Dane County, Ashman), the first in the north May 11 (Douglas County, Bernard). Departures late, as usual; banded June 4 at Cedar Grove (Mueller).

**Yellow-throated Warbler:** The sixth modern record of this species came with a big push of birds to Picnic Point in Madison May 2; this bird remained in the area at least five days (John T. Emlen). See "By the Wayside."

**Chestnut-sided Warbler:** Milwaukee County May 3 (Donald); a few other areas the next day. Other influxes May 8 and 11 reached some northern counties. Departures in the south were mostly the last week of May. Banded at Cedar Grove June 6 (Mueller).

**Bay-breasted Warbler:** Noted first in Milwaukee County May 7 (Donald). Lots of arrivals May 11-13. Relatively few northern reports. Peaks May 21-22 coincided with a number of departures. Birds left most other areas within the next few days, except for a banding record from Cedar Grove May 30 (Mueller).

**Blackpoll Warbler:** Waukesha County May 4 (Hoffmann). Birds appeared in most areas May 15 or after, with peaks May 21-22 in three separated counties. Still present May 31 in five counties.

**Pine Warbler:** Seen in Eau Claire County April 30 (Robbins) and in five more counties during May (Brown, Chippewa, Racine, Rock, and Wood).

**Prairie Warbler:** The only observation is an undocumented one from Racine County May 7 (Stoffel fide Erickson).

**Palm Warbler:** In a season in which there were quite a few complaints about the scarcity of warblers in general, there were some comments on the unusual abundance of this species. Waupaca County provides the first report (April 21, Peterson), with the usual smattering of late April arrivals, some reaching far northern counties. Peaks mentioned were primarily May 3-5, with others May 8, 13, and 18. Departures began May 13 and continued through May 23 in southern counties, with a May 29 report from Douglas County (Bernard).

**Ovenbird:** Appeared May 3-5 in 12 counties and May 11-12 in most northern counties. Peaks were scattered from May 7 to 21. A few observers commented either on this species' scarcity or lateness.

**Northern Waterthrush:** A very early bird in Dane County April 19 (Ashman), with the next report coming from Oconto County April 25 (Richter), where three nests with 3-5 eggs were found May 24-25. Few northern reports, oddly enough. One heard singing in Buffalo County May 30 (Robbins).

**Louisiana Waterthrush:** Banded in Sauk County April 20 (Peartree). Noted in St. Croix County April 29 (Robbins). May reports from nine more counties.

**Kentucky Warbler:** Noted near Lake Michigan May 11-12 in Racine (von Jarchow) and Milwaukee (Donald) counties; and later in May in Sauk and Grant counties, where it breeds. One found in St. Croix County May 28 may be quite unusual, as this species is not listed in a 1957 Minneapolis-St. Paul regional list (Robbins).

**Connecticut Warbler:** Extremely early birds (neither one documented) were noted in Jefferson (Degner) and Racine (Erickson) counties May 4. A few more reports before mid-May, but the major migration took place, as usual, in the last week of May, with two banded in Rock County in June (the Stockings). From Mueller's experience with banded birds at Cedar Grove this spring comes a note of caution about the identification of this species. Now it appears that it is necessary not only to eliminate the possibility of misidentifying Nashvilles as this species, but also Mournings. It is generally known that Mournings have incomplete eye rings in the fall, but he says that some Mournings have virtually complete eye rings in spring and therefore reports of non-singing Connecticut in spring may be suspect.

**Mourning Warbler:** A fair number of observations May 10-13, including "dozens" in Waukesha County May 12 (Peartree). The bulk of arrivals came during the latter part of the month, however. Singing males in Buffalo and Pepin counties May 30 (Robbins); eight banded on that date at Cedar Grove (Mueller). Still present then in four additional southern counties.

**Yellowthroat:** May 1 birds in Rock (Mahlum) and Waupaca (Peterson) counties preceded a decided influx May 3-4. Within a week birds were seen in some northern counties, but it was another week before observers in all areas had noted this species. Sauer (Waukesha County) noted "many more than in recent years."

**Yellow-breasted Chat:** Arrivals May 8-12 were noted in Waukesha County (Edith M. Leppla), at Cedar Grove (Mueller), and in Racine (Stoffel fide Erickson, five reported!); Waukesha (Dick Sharp, Peartree), and Milwaukee (Lisa Decker fide Donald) counties. Noted also May 16 in Racine County (Erickson) and May 30 in Pepin County (Robbins). A total of eight banded at Cedar Grove, the last on May 30 (Mueller).

**Hooded Warbler:** A male seen well in the river bottom north of Mazomanie May 5 (Chuck Sontag, Fred Alyea); noted also in Milwaukee County May 13-14 (several observers) and near Hudson in St. Croix County May 29 (Robbins), in a region where there apparently has been but one previous record.

**Wilson's Warbler:** Robbins' May 4 report from St. Croix precedes nearly all others by at least a week, and most northern ones by two weeks. Departures were late. Many in Waukesha County May 12 (Peartree) and in Racine County May 22 (Erickson). Peak at Cedar Grove May 30 (Mueller). One banded June 5 in Rock County (the Stockings).

**Canada Warbler:** Appeared in Racine County May 7 (Fiehweg) and in three other counties the next day, including Lincoln (Hendrick). More reports May 11-12, but no real arrival pattern was evident. Peak at Cedar Grove May 30 (Mueller, 13 banded), with migrants still being banded June 6. Other peaks May 22 and 29.

**American Redstart:** There were apparently mild pushes into the state May 4, 8, and 11-12, reaching several far northern areas. Peaks May 18 and 22 (243 in Racine County on the 22nd, Erickson).

**Bobolink:** Appeared in Waukesha (Bielefeldt) and St. Croix (Robbins) counties April 27, but not until May 2-4 did observers elsewhere see any. May 11 brought birds to most sections of the state. All peaks May 21-28.

**Eastern Meadowlark:** A number of arrivals were noted March 14-17, as far north as Marinette County (Lindberg), with most areas reporting birds within the next week. Peaks along Lake Michigan were March 25-27.

**Western Meadowlark:** Arrivals much as for preceding species, although this was generally the earlier of the two in western counties.

**Yellow-headed Blackbird:** A March 30 report from Cedar Grove (Mueller) precedes by two days any previous spring sighting of this species. Recorded April 13-17 in four counties. Noted in 13 counties in all, including Adams, Brown, Chippewa, and Marinette away from the southeastern part of the state.

**Redwinged Blackbird:** Noted March 8 in Manitowoc County (John Kraupa) and the next day in Racine (Weber) and Rock (Mrs. John Brakefield) counties. Major movement occurred March 14-17. By March 23-24 had reached most northern counties and was also "well distributed in SW Wisconsin" (Barger). Early peaks as follows: March 17, 22-25, 30-31, and April 2.

**Orchard Oriole:** Seen from May 5 on, in some cases into June in Jefferson (Degner), La Crosse (Young), Vernon (Weber), Milwaukee (Donald), Racine (May Count), Rock (Maxson), St. Croix and Buffalo (Robbins), and Brown (May Count) counties.

**Baltimore Oriole:** Noted extremely early in Racine County April 19 (Saetveit), not elsewhere until May 2-5, when a major influx brought birds to most areas. Some northern counties reported none until May 7-18. Peaks mentioned were May 4, 8, 13, and 15.

**Rusty Blackbird:** Rather disperse arrivals, stretching from March 15 on. Most departures occurred during April, although there were three May dates: one bird observed carefully May 13 in Price County (Robbins), undocumented reports from Douglas County May 11 (Bernard) and Brown County May 19 (Paulson fide Cleary).

**Brewer's Blackbird:** Jefferson County provides the first observation, March 28 (Degner). Some movement April 3-6, by which time it was common in Oconto County (Richter). Spread into more areas April 12-16, reaching Burnett County (Stone). Recorded in a total of 24 counties, from all but the southwestern part of the state (which has very few reporting observers).

**Common Grackle:** General arrival March 14-17, although migrants were observed as early as March 9 in Racine (Weber) and Rock (Maxson) counties. A further push March 23-26 carried birds to all but a few reporting counties. Peak dates varied widely, including March 17, 24-25, 30-31, April 4, 7, 10, 14, 16, and 27.

**Brown-headed Cowbird:** Noted as early as March 7 in Dane County (Hilsenhoff), with the next movement, a major one, not until March 15-18. Influxes into northern counties occurred March 30 and April 12-15.

#### TANAGER, FINCHES AND TOWHEE

**Scarlet Tanager:** Vernon County May 3 (Weber); no well defined influx. Hundreds in Waukesha County May 12 (Peartree).

**Cardinal:** Noted May 22 in Ashland and Bayfield counties (Kozlowski).

**Rose-breasted Grosbeak:** Appeared May 3 in five counties, as far north as St. Croix (Robbins); quite a few more reports the next few days. Reached nearly all reporting northern counties May 11. Six peaks May 10-12, including hundreds in Waukesha County May 12 (Peartree). Peterson (Waupaca County) reported many, saying also that they came to her feeder for the first time.

**Blue Grosbeak:** Birds were studied carefully and at close range under good lighting conditions in Racine County May 11 (John and Judy Shreve) and in Marinette County May 18 (Lindberg, a pair).

**Indigo Bunting:** First seen in Dane County May 2 (Soulen); next reports from May 6 on, the first in northern counties May 10-11. More than usual in Rock County (Maxson) and hundreds May 12 in Waukesha County (Peartree). Most peaks May 11-14.

**Dickcissel:** Seen very early in Rock County April 29 (Mahlum), where it was very common this year. Other early birds May 5 in Fond du Lac County (Weber) and May 7 in Dane County (Ashman). Most arrivals were noted the last week in May.

**Evening Grosbeak:** Reported only from six relatively northern counties. Some departures occurred during March, but in Ashland (Kozlowski) and Douglas (Bernard) counties birds were seen the last week of May.

**Purple Finch:** Present in most sections of the state March 1. Various peak and departure dates indicate major movements March 22-24 and April 19-20. Most May departures were about mid-month.

**Pine Grosbeak:** Noted in five counties in the northern half of the state: Forest March 3 (Richter); Bayfield and Douglas until March 22-23 (Bernard, Robbins, Klugow); Lincoln until April 16 (Hendrick); and Brown May 19, apparently a sick bird (Paulson fide Cleary).

**Hoary Redpoll:** Kozlowski saw two in a flock of 50 Common in Ashland County March 5.

**Common Redpoll:** "Common," "unusually plentiful," "numerous flocks" were comments of some observers about the abundance of this species in six northern counties during March. Robbins and Klugow noted "small flocks everywhere along road" on March 22 in Bayfield, Douglas, and Washburn counties, a "tremendous influx." Most departures occurred by the end of March, with a few through April and the last May 3 in Lincoln County (Hendrick). Very few in southern Wisconsin.

**Pine Siskin:** This was early the finch which caused the most comment this spring. It was reported from all parts of the state except the southwestern and central (where there are few observers), and—particularly in the north—in large numbers. Marked movement began about mid-March, and during the last half of the month a few southern counties noted departures. In quite a few areas, however, the species remained very late, much later than in the spring of 1961. Kraupa reports a nest in Two Rivers on May 11, with the female incubating eggs. This nesting was subsequently disrupted by a storm, although the female remained for a while in the neighborhood, at least as late as June 6. Still present into June also in Brown (Cleary), Dane (Hilsenhoff, Soulen), Ashland and Bayfield (Kozlowski), Polk (Mrs. Lester Pederson), Lincoln (Hendrick), Waupaca (Peterson), and Outagamie (Tessen) counties.

**American Goldfinch:** Movements of this species were not well defined. Hendrick reports that they began regaining their spring plumage in Lincoln County about March 27. Peaks April 6 in Columbia County (the Dryers), April 11 in Outagamie County (Tessen, large migration), May 8 at Cedar Grove (Mueller), and May 11 in Ashland and Bayfield counties (Kozlowski, new influx).

**Red Crossbill:** One lone bird appeared on the Wausau May Count.

**Rufous-sided Towhee:** Four reports March 29-31, with other arrivals scattered until a mild push April 13-17. First northern report April 6 (Oconto County, Richter), although other northern observers report none until mid-May.

## SPARROWS THROUGH SNOW BUNTING

**Savannah Sparrow:** Noted April 1-2 in Milwaukee (Donald), Waukesha (Bielefeldt), and Racine (Weber) counties. Mild influx April 13-17, reaching Lincoln (Hendrick) and Marinette (Lindberg) counties. Most other areas report birds within the next week.

**Grasshopper Sparrow:** Waukesha County April 27 (Bielefeldt); Rock (Mahlum) and St. Croix (Robbins) counties April 29. May arrivals in seven additional counties, Brown and Chippewa being the only northern ones.

**Le Conte's Sparrow:** Robbins found this species in five separate areas in St. Croix County May 8-28 and also in Chippewa County May 25.

**Henslow's Sparrow:** Noted first in St. Croix County April 12 (Robbins); decidedly more there than in 1961 or 1962. Three more April and four May arrivals in the seven additional counties reporting this species. No observations north of Brown County in the east or Chippewa County in the west.

**Vesper Sparrow:** A March 4 report (undocumented) from Waupaca County (Peterson) is incredibly early. A fair number of arrivals the last week in March, reaching St. Croix County (Robbins). There may have been an influx April 12-13, when five areas reported migrants for the first time.

**Lark Sparrow:** Noted in Dane County, where it nests, May 14-15 (Walker, Ashman). Two seen well on the Wausau May Count. Also reported on the Beloit May Count, for the third straight year.

**Slate-colored Junco:** Present in some northern counties March 1; returned to most others during the last week of March, during which period peaks were noted in several southern counties. Several thousand in Ashland and Bayfield counties April 7 (Kozlowski); other peaks stretched generally through the period April 3-12. Most departures occurred by about May 10. Seen in Oconto County May 18 (Bradford); one banded in Chippewa County June 10 (Kemper). There were two conflicting reports as to the abundance of this species, Hendrick noting many more, Robbins many less than in other years.

**Oregon Junco:** Reported from seven counties, all in March except until April 19 in Outagamie County (Tessen).

**Tree Sparrow:** Returned to Burnett County March 24 (Stone), to other northern areas March 31 to April 10, by which time a fair number of southern observers had noted departures. Most departures were during April, except in Marinette (Lindberg, May 6), Lincoln (Hendrick, May 11), and Douglas (Bernard, May 11) counties.

**Chipping Sparrow:** Noted extremely early in Dane County March 21 (Tom Nicholls), with no other reports until the first ten days of April. No well defined influxes, although arrival dates clumped somewhat in the periods April 12-17, 19-21, and 25-27. Peaks also were noted during these last two periods.



**Clay-colored Sparrow:** St. Croix County April 29 (Robbins); May reports from 14 more counties.

**Field Sparrow:** Recorded March 17-18 in Racine (Erickson) and Dane (Walker) counties. Many reports March 23-24 and the last few days of March. No observations in the far north until the end of April.

**Harris' Sparrow:** Two in Jefferson County April 14; one in Rock County April 26 (Andrews and Glenn). Noted in May in eight additional counties. Fairly common in each of the four northwestern counties reporting, with 17 present on the Douglas County May Count.

**White-crowned Sparrow:** Brown County May 1 (Cleary); 14 more counties May 2-4, including Douglas (Bernard). All peaks May 4-10. Lingered until May 24 in Waukesha County (the Hoffmanns). More than usual in Milwaukee County (Donald).

**Golden-crowned Sparrow:** For a full month (May 15-June 5) Janet Kozlowski was frustrated in her attempts to track down in Ashland County a bird which sang the song of this species, with which she had had several years contact in various parts of Alaska. Her husband, who also was familiar with the song of the Golden-crowned, concurred in the identification of the song, and Sam Robbins indicated that their whistled imitation of it was unlike that of any Wisconsin bird he has ever heard. This record must remain hypothetical, even more so than many sight records, but it is interesting nevertheless. The only other Golden-crowned Sparrows ever seen in the state occurred here just over a century ago, the last specimen being taken in the Racine garden of collector P. R. Hoy. The full account of the 1963 record is in "By the Wayside."

**White-throated Sparrow:** A March 18 Dane County bird (Walker) doubtless wintered, as may have the few other early April ones. Very marked invasion April 16-18, reaching a few northern counties. Within a little over a week all areas of the state had reported migrants. Most peaks May 4-7, with a few later. Still present in a number of areas statewide during the last week of May. Richter found a nest with four eggs in Oconto County May 26.

**Fox Sparrow:** Noted first in Racine County March 17 (Dorothy and Joy Joslyn fide Erickson), with a very pronounced influx March 23-25. Northern areas report none until the first week of April. Peaks fell in the period from March 25 to April 6. A few May departures, including the usual undocumented May Count birds. One injured bird in Brown County May 19 (Paulson fide Cleary).

**Lincoln's Sparrow.** Quite a few reports May 2-5, including St. Croix County (Robbins); not noted in more northern counties until May 11-14. Most departures by May 20, but banded at Cedar Grove June 3 (Mueller), five days later than it has lingered in previous spring seasons.

**Swamp Sparrow:** Racine County March 25 (Erickson); at Cedar Grove (Mueller) and in St. Croix County (Robbins) March 30. Mild push April 4-7; had reached some northern counties by mid-April. Only peaks mentioned were April 27 and May 8.

**Song Sparrow:** Rather marked arrivals as follows: March 10, 15-16, 22-24, (the most noticeable), and 29-30. Peaks later than this were April 6, 8, and 10.

**Lapland Longspur:** Large numbers in Outagamie (Tessen) and Wood (Don G. Follen, Sr.) counties, principally during April. Left Columbia County May 22 (Barger).

**Snow Bunting:** Most departures during March, except April 19-25 in Ashland and Bayfield (Kozlowski), Douglas (Bernard), and Marinette Lindberg) counties.



## NEWS . . .

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