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The Passenger Pigeon



Winter, 1985 — Volume 47, No. 4



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Cover Photo: Great Gray Owl Painting by Rockne Knuth

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Snow Depth Affects Local Abundance of Wintering Rough-legged Hawks

By Richard P. Thiel

During winter 1974 I conducted a strip census of Rough-legged Hawks (*Buteo lagopus*) along a town road 5 mi (8 km) northwest of Stevens Point, Portage County, Wisconsin. All Rough-legged Hawks in sight on either side of a 6 mi (9.6 km) stretch of road west of the Wisconsin River were counted between 1100 - 1500 h CST on 24 of 38 days between 17 January and 23 February. The habitat along the route consisted of approximately 50 percent cultivated or fallow fields and 50 percent woodlots. These counts were correlated with snow depth records (Anon. 1974 Climatological data: Wisconsin 1974. Natl. Oceanic and Atmospheric Adm., Envir. Data and Info. Serv. Natl. Climatic Center, Ashville, N.C. 79 (1-2) from nearby Wausau, WI (20 mi NNE).

Table 1. shows the number of hawks counted and snow depths for each day of the study. Although hawk numbers fluctuated daily, as snow depths increased the number of hawks declined. Roughlegs were seen infrequently after a major snowfall on 2 - 4 February. It is possible that the high counts obtained on 3 - 5 February, just after snow depths had increased sharply, represented movements through the area of birds that had been further north and were seeking areas with less snow cover. To test for a relationship between the number of hawks seen along the route and snow depth, I calculated a correlation coefficient (r) that describes the strength of the correlation between the two measurements. Over the 24 days of the study the correlation between the number of hawks and snow depth was negative and

Date	No. Hawks	Snow Depth (in)	Date	No. Hawks	Snow Depth (in)
January			February		
17	2	6	2	5	6
18	4	6	3	7	10
20	1	7	4	3	11
21	2	6	5	5	11
22	4	6	6	0	11
23	6	6	7	3	11
24	1	6	8	0	11
25	3	6	9	0	11
26	3	6	11	2	11
27	5	5	12	0	10
28	7	5	13	0	9
29	3	5	18	0	10
30	5	5	22	0	9
			23	0	9

Table 1. Numbers of Rough-legged Hawks seen along a 6 mi census route and snow depth during each day of observation, January-February, 1974.

significant ($r = -0.45$, <0.01). The mean number of hawks ($\bar{x} = 3.6$ hawks) counted before 3 February when snow depths were below 9 in (22.5 cm) was compared to the mean ($\bar{x} = 0.8$ hawks) after 5 February when snow depths exceeded 9 in (data from 3-5 February were excluded because of movements through the area). Results were highly significant ($P < 0.001$; $t = 4.15$; $df = 22$). I conclude that hawk numbers do decline as snow depths increase.

In discussing winter food-habits of the Red-tailed Hawk (*Buteo jamaicensis*), Petersen (1979. WI. Dept. Nat. Resources Tech. Bull. 111:32) indicated that microtine rodents were less available to hawks when snow depths exceeded 4 in (10cm), at which time the hawks switched to such buffer species as Ring-necked Pheasant (*Phasianus colchicus*). I believe snow depth also has a strong influence on the availability of microtine rodents to roughlegs; when snow depths exceed some critical amount (probably 4 - 6 in) the hawks respond by emigrating to more suitable hunting areas. Schnell (1967. Kansas Ornithological Soc. Bull. 18(4):21-28) observed a rapid decline in numbers of Rough-legged Hawks in DeKalb County, Illinois during the winter of 1965-66 following storms that left 9 in (22.5 cm) of snow on the ground, despite the presence of a high vole population.

It is likely that the winter distribution of such species as Roughlegs, Northern Harriers (*Circus cyaneus*), Long-eared Owls (*Asio otus*), and Short-eared Owls (*A. flammeus*) is determined not only by the abundance of microtine rodents but by the availability of these rodents in relation to variations in snow depth throughout the raptors' respective wintering ranges. Winter distributions of such microtine-dependant raptors can be expected to shift in response to regional changes in snow depth.

I thank S.E. Beuchel for field assistance and L. Petersen for making helpful suggestions on this note.

308 E. Council St.
Tomah, WI 54660

Visit to Outer Island, Apostle Islands National Lakeshore near Bayfield, Wisconsin September 7, 1985

By Fred Leshar

Ron Gutschow, Gladys Kaufman, Fred Leshar and Neil Neimuth visited Outer Island between 11:30 a.m. and 3:30 p.m. C.D.T. on Saturday, September 7, 1985. The sky was mostly clear, temperature was 65°F, and the wind was strong from the northwest at 15 mph. The purpose of the trip was to confirm whether or not various passerines and raptors concentrated on the heath dune and sand spit at the south end of the island as reported in "Birds of the Apostle Islands" by Temple and Harris. (See a review of this report by Leshar in *The Loon*, Fall 1985, Vol. 57, No. 3, p. 121).

There were indeed hundreds of passerines concentrated in the sandy dunes between the woods and beach, mostly Palm Warblers and Dark-eyed Juncos. Up to four young or female Merlins were in sight at a time, for the most part pursuing bird prey without success. The only evidence of hunting success was the head and feathers of a Downy Woodpecker left by a Merlin

flushed from its feeding site. With much squawking and seemingly awkward maneuvers, several Northern Flickers narrowly escaped being killed, either by diving into the beach scrub or more often by fleeing into the woods. The Merlin hunting method seemed to be patrolling up and down the open beach and dunes at several hundred feet, then accelerating in a shallow dive, singling out a particular bird from among those put to flight by the approaching predator. At times a Merlin engaged in brief pursuit of prey in an opening among the trees. Once a perched Merlin attempted to ambush birds returning to or passing by an area a few minutes before flushed clean of passerines by another Merlin. There may have been up to 10 immature and female Merlins concentrated at the south tip of the island at the time of this visit. Visits by birders at various times of the year would add to the depth of knowledge of Wisconsin birds. Wilderness camping is possible. For information contact The Apostle Islands National Lakeshore at Bayfield. For transportation by water taxi contact Apostle Islands Cruise Service at Bayfield.

Birds seen on Outer Island September 7, 1985, 11:30 a.m. - 3:30 p.m. C.D.T.

Common Loon - en route
Double-crested Cormorant - en route
Sharp-shinned Hawk
Red-tailed Hawk
American Kestrel
Merlin
Sanderling
Ring-billed Gull
Herring Gull
Common Tern
Belted Kingfisher
Downy Woodpecker
Northern Flicker
Blue Jay

American Crow
Common Raven
Gray-cheeked Thrush
Swainson's Thrush
Cape May Warbler
Yellow-rumped Warbler
Palm Warbler
Savannah Sparrow
White-throated Sparrow
White-crowned Sparrow
Dark-eyed Junco
Red-winged Blackbird
Purple Finch

509 Winona St.
LaCrosse, WI 54603

Eastern Bluebird

By Kevin Glueckert

Two years ago, a pair of Eastern Bluebirds (*Sialia sialis*) nested in the only house on our property. Last year, I put up five specially made bluebird houses. A pair of them took one of the houses.

Since May 5th, when I first observed them bringing nesting materials into the box, I watched them as often as possible. On June 19th, the offspring left the house but stayed in the area. Four days later, they had built a new nest in the same house, and on July 29th, the second brood set out to see the world.

These bluebirds fared well considering the large number of Tree Swallows (*Iridoprocne bicolor*) in the vicinity. Hopefully this year they will return, and perhaps another couple will find a house suitable to their needs. My

plan is to stick with five houses, which are spread out among the 28 acres of land. The habitat is appropriate, consisting of young ash trees and grassland.

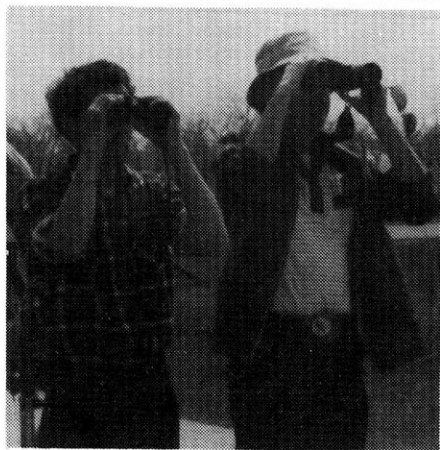
Viewing the birds is done through the hole on top of the house, as well as sitting nearby and observing the parents' activities. On the days of observation, I record what I see, the date, and weather conditions. Even after they leave the nest, I attempt to study their habits and capabilities. The bluebirds enjoy the water provided in the yard for them as it serves as a place for them to drink and bathe on a hot day.

This is what I will be doing during the upcoming years. I also may consider adding some houses to the landscape if I see them rise in population and a drop in the Tree Swallows.

Being a sophomore in high school, I will persist in my studies of the bluebirds in my college years also. After college, I hope to be in the ornithology field. I want to live in an area of Wisconsin where I can try to promote a project of bluebird trails or something of that nature.

Why all the concern for this member of the thrush family? It is the symbol of America's farmland preservation. Its cheerful warbling represents the will to survive, to ignore technology, and to find a place to bear another generation of happy, feathered creatures. My neighbor tells of the time when bluebirds were abundant across the meadows. But barbed wire fences became popular and replaced wood posts, which were depended on by the bluebird. Now, we must counter the barbed wire invention with people who want to change barren fields into bluebird refuges! We must see to it that the bluebird has its home replaced. Not by wire, but by the new houses. You know, the invention of the bluebird house with built-in defenses against invaders is certainly as important as the tractor or plow.

206 Fremont St.
Algoma, WI 54201



**FIND THIS
BIRD
ONLY IN
RACINE**

W.H. PUGH OIL CO., Racine, WI

Great Gray Owl in Polk County

By Don G. Follen, Sr.

On December 21, 1984, Gred Lischinsin of rural Clayton (Polk County) called to tell me that his father, Bill, and he had just spent some time photographing a Great Gray Owl nearby and did I want to know about it and see it? Needless to say, I was thrilled, as I had been expecting a number of reports this winter. I replied with an emphatic yes! It was too late to go that day, and severe weather was predicted for Saturday, so I requested that they contact me on Saturday evening if the bird was still observable. About 4 PM on Saturday Bill called to say that they had just seen the owl. I responded by saying that I would be up there early.

I arrived at the Lischisin farm at approximately 9 AM, and Bill and I went to look for the owl. Lo and behold, there sat this large, mysterious bird in an elm tree, just across the ditch! As seems to happen when capturing birds in these situations, a deserted farm road suddenly became very busy. But with all under control, we captured the bird in minutes. What a joy and privilege it is each time I handle one of these birds. The bird was presumed to be a male because of its size, and we have no knowledge of its age. The bird was banded (No. 608-45709), color marked with red dye (a red spot on the back of the head, red on the three upper primaries and red on the three right rectrices). After release, the dye was visible on the bird's wing and back of the head as it sat on a snag a hundred feet away.

The eyes, breast-keep exposure, wings, tail, legs and feet were all checked to determine overall condition. The bird appeared to be in excellent physical condition, and flew well before and after capture. Its temperament was quite feisty at the onset.

SPECIAL NOTE: This area also had a Great Gray Owl in 1982, but no photo evidence was attainable. During fall and winter months, WSO members heading north on Highway 63 from Baldwin toward Ashland are advised to keep an eye open. The winter of 1983-84 had a GGO in the area, a bit further west. It was photographed near Interstate Park.

A significant point is that this is the very first Great Gray Owl ever to be captured, banded and released on site in Wisconsin history.

9201 Rock Inn Road
Arpin, WI 54410

Great Gray Owl Update

By Don G. Follen, Sr.

In 1978 a statewide study was undertaken to determine the status and distribution of the Great Gray Owl (*Strix nebulosa*) in Wisconsin. The results of the first three years were published in the Passenger Pigeon; 1979 42:69-70, 1981 45:45-47 after thorough screening. One objective in publishing these accounts was to include specific locations as much as possible in the hope that other birders might watch these areas and enhance our field work. Unfortunately, this has not happened. In a continuing effort, we will periodically print updates of activities and accomplishments.

We have continued to solicit funding from individuals and other sources to help defray the terrific costs of field work. Our efforts have begun to pay off, and we will continue to solicit contributions.

As Figure 1 below will show, we are receiving nearly the same number of good, verifiable or reliable reports year after year. Noticeably the numbers of observations shift from year to year per county. Since we know that the Great Gray Owl is primarily a vole consumer, and since voles shift in numbers from year to year due to their cycles, we are assuming that the owls are following the vole populations. For this reason we hope that in the not too distant future we will be able to suggest productive observation sites.

In 1979-80 we erected twenty four artificial nesting platforms in NW Wisconsin with the hopes of attracting Great Gray Owls to breed. We have not been totally unsuccessful, as we have observed a GGO on a nest twice, and have found feathers and other signs, indicating that the birds were at least visiting our nests. We now know how to improve our choice of nest sites. During the winter of 1984-85 we are erecting more artificial nests in much better habitat. Good habitat is important during all seasons, but it seems that preferred habitat during nesting is essential.

During the winter of 1984-85, Department of Natural Resources personnel from N. Central and N. Western Wisconsin accompanied us to nearby Minnesota, where we looked at artificial structures and habitats being used successfully by Great Gray Owls. In the future, as in the past, we appreciate any help from the State of Wisconsin. Our joint objective is to disclose the resource and plan for effective management of that resource for the best interest and concern of present and future generations.

Wisconsin Great Gray Owl Sightings 1982 through 1984				
County	1982	1983	1984	Total
Ashland	2	0	0	2
Barron	1	1	0	2
Bayfield	6	2	1	9
Burnett	3 (1 spec.)	2	2	7
Chippewa	1	0	0	1
Clark	0	1	0	1
Douglas	7	1	4	12
Forest	0	0	3 (2 yng)	3
Juneau	1	0	0	1
Lincoln	1	2	2	5
Marathon	1	0	1 (spec.)	2
Oneida	0	4	0	4
Polk	1	1	4	4
Price	1	1	1	3
Sawyer	1	3	1	5
Taylor	2	2 (1 spec.)	0	4
Vilas	1	0	1	2
Washburn	0	2	0	2
Wood	0	0	1	1
19	29	22	21	72

Figure 1.

During the last three years, we did realize one major accomplishment which we felt needed and deserved media attention. On December 23, 1984 we finally captured, banded and color-marked Wisconsin's first Great Gray Owl. After years of chasing down leads and possibilities, we finally succeeded, and of course this event yielded immense personal satisfaction. The most significant thing about banding this bird is that it is now one of however many in Wisconsin's total population that is marked — a bird that if ever encountered again will add to our knowledge of these birds within our state. A second bird was banded on Feb. 19, 1985 in Taylor County. Any number of people can see a bird here or there, but without marking, there is little or no way to tell if it is the same bird. Marking these birds is so very important, with the outcome totally in the best interest of the resource. We encourage anyone who knows the whereabouts of Great Gray Owls to join us in our search for information which ultimately leads to our knowledge of a large but little known bird in Wisconsin.

Acknowledgements

I would like to thank all contributors of sightings, photographs, or information on specimens — your help is so invaluable. I wish also to thank the Wisconsin Society for Ornithology for allowing me to channel research money through them and Mrs. Linda Gabel for assistance with clerical work.

Dedication

To the memory of one of the most sincere and touching human beings I have had the pleasure of knowing, Dr. Ralph Allen and to his widow Ellen, as we remain close friends. The Allens have been very instrumental, through their annual contributions, in allowing us to go afield for part of the year.

LITERATURE CITED

- Follen, Don G. Sr. Great Gray Owl Study 1979, Passenger Pigeon 42:69-70.
Follen, Don G. Sr. Great Gray Owl Study 1981, Passenger Pigeon 45:45-47.

2901 Rock Inn Road
Arpin, WI 54410

How Much Is An Evening Grosbeak Worth?

By John Y. Takekawa and Edward O. Garton

(Reprinted from the JOURNAL OF FORESTRY, Vol. 82, No. 7, July 1984)

ABSTRACT — *Birds consume large numbers of the western spruce budworm (*Choristoneura occidentalis*), a forest insect which defoliates economically valuable stands. We estimated the economic value of bird predation on two stands in north-central Washington by substituting the cost to spray with insecticides to produce the same mortality rate as birds cause. It would cost at least \$1,820 per square km per year over a 100-year rotation. This figure may be used to appraise the value of individual predator species, such as the voracious Evening Grosbeak (*Hesperiphona vespertina*), to evaluate the cost-effectiveness of biological control with birds, and to assess silvicultural treatments and other practices which affect both bird and insect numbers.*

On federal lands, administrative decisions are guided by benefit-cost analyses of management alternatives that maximize the value of the land for society. These analyses require quantitative estimates of benefits and costs associated with proposed alternative actions. Natural resources such as wildlife are difficult to quantify in dollar terms because the values are based upon esthetics or other intangible assets. As a result, wildlife is often undervalued or neglected in federal land-management decisions.

For example, passerine birds are abundant in forests, yet they are rarely considered in benefit-cost analyses. Our work on avian predators of the western spruce budworm suggests that passerines contribute strongly in the natural control of outbreaks of this damaging insect. This article will demonstrate how their value as predators might be quantified.

The western spruce budworm larva is an important defoliator of Douglas-fir (*Pseudotsuga menziesii*), true firs (*Abies* spp.), and spruce (*Picea* spp.). The budworm life cycle begins in early September, when female moths deposit their eggs on conifer needles. Within 10 days, larvae emerge and disperse to overwintering sites under bark scales. In the following summer, the larvae consume new needles and buds and grow to over 2.5 cm in length. They pupate in early August and complete the cycle with adult flight in late August.

Our work focuses on the larval and pupal stages of the budworm from late May through early August. This period is critical for the reproduction of both the budworm and the birds that prey on it.

Study Areas and Methods

Budworm outbreaks in the early 1970s on the eastern slopes of the Cascade Range in north-central Washington led to selection of the Methow and Twisp River drainages as sites for budworm population dynamics studies (USDA Forest Service 1976). When we began our study in 1979, both areas had light to medium defoliation, with late-instar densities of 16 insects per 100 current-year shoots (Torgerson and Campbell 1982).

Our bird census plots overlaid 5-hectare entomological study plots established one year earlier. An 11.25-hectare plot was gridded at the Twisp River site (No. 3); steep topography limited our Robinson Creek plot along the Methow (No. 2) to 9.4 hectares. Both plots were predominantly Douglas-fir and Ponderosa Pine (*Pinus ponderosa*). The Robinson Creek plot was heavily stocked with smaller trees while the Twisp River site contained a heterogeneous mixture of uneven-aged clumps of large and small trees separated by openings with dense shrub cover.

Censuses were conducted during the breeding season on 10 mornings along six 450-meter transect lines. Birds were collected for stomach analysis in areas adjacent to our study plots. The stomachs were examined with a dissecting microscope, and we counted all whole budworm larvae and pupae, larval mandibles, and pupal cremasters. Digestion trials were run on captive birds.

Density of Grosbeaks

Nearly every species censused in 1979 preyed on budworm. The Evening Grosbeak, a flocking passerine with a large bill adapted for seed-eating, was particularly voracious. To estimate the extent of grosbeak predation, we calculated the number of grosbeaks per km² and the number of budworms eaten per bird.

The density of grosbeaks was estimated by multiplying the density of grosbeak groups censused on one plot by average group size and by a correction factor for young of the year. Mean group size, determined from counts of groups observed visually, was 1.36 (SE = 0.133) and 1.62 (SE = 0.064) at sites 2 and 3. The correction factor is included to account for fledglings which are not censused on line transects but consume as much as adults during the breeding season (Skutch 1946). Thus, one censused bird represents itself and half of its offspring. Grosbeaks have an average of 3.5 young so that each grosbeak sighted during a census represents 2.75 birds (Gage et al. 1970).

Because grosbeaks are regurgitative feeders, digestive tracts collected during the 14-day nestling period contain prey for both the bird and its young. Also, during the 14-day incubation the female is fed by the male. Therefore, for 28 days of the approximately 55-day period when budworms are vulnerable to avian predation, grosbeak juveniles do not forage for budworm and are represented by increased larvae or pupae in the esophagus of the adults. For the rest of the summer, a correction must be made for juveniles. The correction for the total grosbeak consumption including juveniles would be $2.75 \times (27/55) = 1.35$. The total number of grosbeaks that consumed budworm was 115 per km² at Robinson Creek (SE = 50) and 707 per km² at Twisp River (SE = 233).

Budworm Consumed by Grosbeaks

Average consumption by one grosbeak was calculated from stomach samples. The number of budworms per stomach was divided by the digestive passage rate (1.2 h, SE = 0.08) to convert consumption to budworms per hour. To estimate budworm consumption through one summer, we assumed the birds had 16 hours of daylight to forage each day over the 55-day period of budworm availability. On the basis of the average number of budworms per stomach, 36.2 (SE = 0.54) at site 2 and 1.4 (SE = 1.58) at site 3, an individual grosbeak consumed from 12,600 budworms on site 3 (SE = 5,240) to 26,400 on site 2 (SE = 9,020) in 1979.

Total budworm consumption is the product of the number of birds and budworms consumed per bird. In 1979, total Evening Grosbeak predation over a square kilometer was estimated to be 3,036,000 budworms on site 2 (SE = 1,761,000) and 8,900,000 on site 3 (SE = 4,900,000). Similar calculations for other bird species yielded estimates of total consumption by all birds of 7,000,000 budworms on site 2 and 12,700,000 budworms on site 3. Therefore, Evening Grosbeaks were responsible for 43 percent and 70 percent of the bird predation at sites 2 and 3, respectively.

Value of Avian Predation

Birds consume large numbers of budworm larvae and pupae. Therefore, they reduce the defoliation caused by the insect on conifers. Since the amount of foliage on a tree determines its radial growth, birds actually reduce timber losses. The value of avian predation may be estimated by comparing the growth of a stand to a hypothetical stand where birds are absent.

Entomological studies by Torgerson and Campbell (1982) on our research sites showed that birds and ants were the two major natural enemies affecting budworm numbers. In this analysis, we have separated the mortality attributed to birds from the compensatory mortality of ants, other predators and parasites. When birds alone were excluded from branches in a manner

which still allowed other natural enemies to act, budworm survival increased tremendously. Birds decreased budworm densities by 66 (site 2) and 72 percent (site 3) in 1979. The following example is based on bird predation alone, after compensatory mortality where both predators are acting is accounted for. In some areas, ant predators may compensate for much more of the bird mortality, and our estimates of bird predation would need to be adjusted accordingly.

Aerial spraying of insecticides is the most widely used control for budworm. More than 11.5 million acres were sprayed to combat the western spruce budworm between 1949 and 1979 (Dolph 1980, Fellin and Dewey 1982, Fellin 1983). Cost-benefiting analyses for northern Washington forests indicated that spraying would be beneficial at larval densities we studied (USDA Forest Service 1978). Effectiveness varies widely (Fellin 1983), but one typical study indicated that spraying with Sevin-4-oil, a major insecticide, decreased budworm survival by 80 percent at a cost of \$1,820 per km^2 (Mounts et al. 1978). Spray mortality corrected for natural mortality with Abbot's formula was 73 percent (USDA Forest Service 1978). This mortality rate is nearly the same as that of bird predation. Thus, because the benefit-cost ratio for spraying is greater than one, the cost to spray may be substituted to conservatively estimate benefits from birds as \$1,820 per km^2 in 1979. Grosbeak consumption alone was worth \$790 per km^2 at site 2 and \$1,270 at site 3. When the number of grosbeaks on each site is considered, predation by one grosbeak is equivalent to investing \$1.80 (site 3) to \$6.80 (site 2) in spraying each year.

A larger economic value may be attributed to birds when budworm populations are low. Northwest budworm populations have historically fluctuated from endemic (<1.0 budworm per m^2) to outbreak (>80 budworms per m^2) every 28 years or three times in a 100-year rotation. (Dolph 1980). A mean growth rate would be 17 percent per year. This rate is small compared to the budworm's potential growth since a female moth may hatch 66 female offspring (Fellin and Dewey 1982). The population will grow unless 98.5 percent of these offspring are killed before they reproduce.

If the budworm mortality rates due to bird predation observed in Torgerson and Campbell's (1982) study are typical for this region, the average rate of increase of budworm populations would rise from 17 to 280 percent per year in the absence of birds. Budworm populations would increase from endemic to outbreak status in 3.3 years or approximately 30 times in a century without birds. However, the pattern of outbreaks might change in this situation, because in the absence of birds spraying mortality of 65 to 75 percent would not decrease the population below outbreak densities unless spray was applied repeatedly in the same year. The most feasible approach would be to spray every year so that outbreaks would only occur once in 28 years, and then spray twice in the outbreak years. Thus, to duplicate the action of birds would mean spraying 103 times in 100 years. Their value would be the cost to spray at this frequency (without birds) minus the cost to spray every 28 years (outbreak frequency with birds) discounted to present dollars at 4 percent (Row et al. 1981). This simple model suggests net present value of bird predation is \$45,500 per square kilometer. One square kilometer of eastern Cascades forests of the type we studied has a net present value of approximately \$200,000 (C.W. McKetta, personal communication). Birds are saving 23 percent of that value by consuming budworm larvae.

Managing for Birds

Birds are contributing strongly to western spruce budworm control on the stands we studied in north-central Washington. The number of budworms removed from the stands by birds is 30 to 130 percent higher than Crawford et al. (1983) observed at two stands near Bangor, Main, infested with moderate densities of eastern spruce budworm (*Choristoneura fumiferana*). The birds in these Washington stands are also removing a much larger percent of the budworm population than Crawford et al. observed. Though there are many differences in the bird communities, plant communities, and stand conditions between the two regions, much of the increased predation in north-central Washington can be ascribed to the high numbers of Evening Grosbeaks in 1979.

The highly simplified approach that we have taken here is merely a first stop. A more realistic approach will be made possible by the development of sophisticated simulation models of the forest-budworm-natural-enemy complex (Colbert et al. 1982). It is hoped that such models can be derived from the extensive data being accumulated by the Canada-United States Spruce Budworms Program (CANUSA).

For the forest manager, the present findings raise the question of whether it would be economically beneficial to manage forests to increase bird numbers (Takekawa et al 1982). If budworm mortality due to birds could be increased to 73.5 percent per year, according to our model, the population would never reach outbreak levels in a 100-year rotation. The potential to use birds to regulate budworm has not been studied, but their ability to consume insects at low densities suggests that they may be able to prevent outbreaks entirely if management can increase the number of birds sufficiently to hold the budworm below some escape threshold.

By the present analysis, managers could profitably spend up to the point where the marginal benefit of adding birds equals the marginal cost, a discounted value of \$103 per km² annually in this region. In other regions such as the Rocky Mountains where outbreaks have been more frequent and spraying has been done repeatedly in the last 30 years (Fellin and Dewey 1982), the marginal benefit of preventing outbreaks would be much larger. Conversely, in areas such as the coastal Douglas-fir communities of Washington and Oregon which have never experienced budworm outbreaks (Dolph 1980), there would be no marginal benefit.

Managing birds in regions where it would be beneficial might include supplying water sources, providing limiting minerals, or adding supplementary food (Takekawa et al. 1982). Projects which require less frequent maintenance such as snag creation, understory enhancement, and nestbox management could be profitable at 10-year intervals in north-central Washington if costs did not exceed \$1,240 per km².

Silvicultural practices such as thinning should be evaluated to determine the effects on birds. Selection harvests that do not change foliage height diversity may actually increase the number of avian predators per unit of foliage while improving stand growth (Franzreb and Omhart 1978).

In the future, controlling destructive forest insects may become increasingly important as intensive management leads to large, homogeneous stands highly susceptible to insect outbreaks. Assigning a dollar value to bird populations is a way of objectively evaluating the feasibility of managing birds and the consequences of losing them.

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THE AUTHORS

John Y. Takekawa is working on his doctorate in the Animal Ecology Program at Iowa State University. His present address is P.O. Box 2226, LaCrosse, WI 54601. Edward O. Garton is associate professor of wildlife in the Department of Fish and Wildlife at the University of Idaho. The research was supported by the Western Spruce Budworm Program, USDA Forest Service (CANUSA). C.W. McKetta aided in developing the economic analysis.

John Y. Takekawa
P.O. Box 2226
LaCrosse, WI 54601

CORRECTIONS

For Fall Issue: P. 95 Under Committee Policies - should read "There can be **no** hard and fast rules"...instead of there can be hard and fast rules.

Cover Photo: A prize of one free credit coupon entitling the bearer to his choice of a free penicillin shot, or a soapsuds enema to the first 25 people who correctly identified the mergansers on the Fall cover as Red-breasted and not Common Mergansers.

FIELD **NOTES**



By **Kenneth Lange**

The Winter Season

December, 1984 - February, 1985

So you think that the weather has been erratic, in fact, kind of crazy in recent years? An analysis of the weather of recent winters by three researchers corroborates your judgment: three of the past eight winters were much colder than normal and three were much warmer than normal, when averaged over the 48 states. Given certain assumptions, such a combination of six very abnormal winters in eight years should not happen again for more than 1000 years, according to this study. What does this wild series of winters all mean? Sorry, but the authors were noncommittal (*Science*, Volume 227, Number 4686, page 506, 1 February 1985).

How was it in Wisconsin this winter? Generally it was a time with slightly above normal snowfall and temperature. In fact, winter never really arrived in the Superior area in extreme northwestern Wisconsin, at least not in the reporting period, except for a week of cold but normal weather in February and several cold days in January (Robbye Johnson).

Weather highlights in southern Wisconsin, as noted in Sauk and Dane counties, included moths flying on the warm evening of 28 December, record cold temperatures on 19-20 January (wind chill readings of -50 to -80 degrees!), and melting of the snow cover from 17 inches to an inch in February in just one week! Central Wisconsin in particular had minimal snow cover throughout much of the period.

The period was again described by some observers as "dull", but I am always uneasy with such appraisals. It may have been relatively uneventful at feeders and along roads, but statewide there were a number of highlights.

For a real birding challenge in winter, inspect the Lake Michigan shoreline to see how many species of gulls you can discover. Take a tip from experienced observers and realize that the greatest number of rarities is apt to be found with northeast winds and rain, which force the birds inland to wait out the storm. Observers this winter in Milwaukee County found a total of 10 species of gulls, including Little Gull, Common Black-headed Gull, Thayer's Gull, Great Black-backed Gull, and Black-legged Kittiwake.

Notable among the observers were Jeffrey L. Baughman, John Idzikowski, and Thomas R. Schultz. Baughman studied the Thayer's Gulls intensively and took more than 200 photos of them, Idzikowski in rain and strong northeast winds on 21 December carefully observed, in succession, an immature Great Black-backed Gull, an adult Black-legged Kittiwake, and an adult Common Black-headed Gull, and Schultz, artist of the gull material in the National Geographic Society bird guides, submitted sketches of the upper and lower wing surfaces of adult Thayer's Gulls to show the wingtip patterns, along with other pertinent information, for example two pages of measurements. See **By the Wayside** for documentation of some of these records.

Potential gull watchers should bear in mind that gull identification, at least in certain groups, is difficult and in some cases impossible. Pioneering Lesser Black-backed Gulls, for example, may be hybridizing with other species and producing at least some of the strange gulls showing up in the East. Thayer's and Iceland Gulls, for another example, seem to form a spectrum of pale, small gulls that can be distinguished at the extremes, but in between might defy identification. Don Roberson discusses these and other aspects of gull taxonomy in **American Birds**, Volume 38, Number 5, pages 878-879, 1984.

Also noteworthy was Wisconsin's first winter Cape May Warbler, a bird in Trempealeau County in December (Hunter).

Berry and cone crops were reported to be exceptionally heavy over most of Ontario, with the result that nuthatches, chickadees, and finches did not irrupt into the south. However, finches were in high numbers in certain sections of Wisconsin, for example northern Bayfield County, at least late in January and into February when on some days Swengel saw at least 1000, mostly Common Redpoll, Pine Grosbeak, White-winged Crossbill, and Pine Siskin. Pine Grosbeaks were fairly common in Northern Wisconsin on the Christmas Bird Counts, and (**Wisconsin Cooperative Pest Survey Bulletin**, Volume 30, Number 1, 15 March 1985) were reported feeding heavily on the buds of balsam fir Christmas trees in the Antigo area, Langlade County. Purple Finches were generally in normal numbers. Red Crossbills were locally common, for example Price and Sauk Counties, and White-winged Crossbills were reported in above normal numbers only in Price County. Redpolls, Pine Siskins, and Evening Grosbeaks were numerous only in northern Wisconsin. The only finch relatively common throughout the state was the American Goldfinch, with a record number (11,562) on the Christmas Bird Counts. Goldfinches in Wisconsin, as in urban areas of southern Ontario (**Canadian Field-Naturalist**, Volume 91, Number 2, pages 165-172, 1977), may be increasing in winter because of an abundance of food provided at feeders.

Several raptors, notably Golden Eagle, Northern Harrier, and Sharp-shinned Hawk, were in record numbers on the Christmas Bird Counts, but Rough-legged Hawks were mostly in below normal numbers for the period.

Red-headed Woodpeckers were in highest numbers in west-central Wisconsin, Door County, and the Ashland area; their low numbers elsewhere undoubtedly reflected a poor acorn crop in those places. Red-bellied Woodpeckers were generally in normal numbers, with above normal numbers in Door County and the Ashland area.

Red-breasted Nuthatches were widespread but typically in below normal numbers, and Brown Creepers were generally in normal numbers. The

Golden-crowned Kinglet remained in a few southern counties into January, with a few in Taylor and Forest counties in February. Townsend's Solitaire and Hermit Thrush were each found in three counties, and the Varied Thrush was reported from seven counties. Bohemian Waxwings were scattered through the state, mainly in the northern part, and Cedar Waxwings, after appearing in record numbers on the Christmas Bird Counts, especially in southern Wisconsin, were scarce until migrants began appearing toward the end of the period. Northern Shrikes were widespread but generally in below normal numbers. White-throated and Swamp Sparrows were in higher numbers than usual on the Christmas Bird Counts. Finally, an interesting observation by Butterbrodt in Iron County: a pair of Northern Cardinals appeared at her feeder in early December, then again on 12 February after more than two months of bitter cold and heavy snow; are some Cardinals becoming cold-adapted?

Fall migrants included Tundra Swan, certain ducks and Canada Goose, although there were still 200,000+ geese in Wisconsin on the Christmas Bird Counts.

Spring migrants included Canada Goose, certain ducks, Bald Eagle, Northern Harrier, accipters, Rough-legged Hawk, Red-tailed Hawk, American Kestrel, Killdeer, Common Snipe, probably Mourning Dove, Short-eared Owl, Horned Lark, American Robin, Cedar Waxwing, Northern Shrike, probably Song Sparrow, Red-winged Blackbird, Common Grackle, and Brown-headed Cowbird.

A total of 69 people contributed records from the following 58 counties (number of observers in parantheses): Ashland, 3; Barron, 1; Bayfield, 3; Brown, 4; Buffalo, 2; Burnett, 3; Chippewa, 1; Clark, 2; Columbia, 2; Crawford, 1; Dane, 10; Dodge, 4; Door, 3; Douglas, 4; Dunn, 1; Eau Claire, 1; Fond du Lac, 4; Forest, 3; Green, 1; Green Lake, 1; Iron, 1; Jackson, 1; Jefferson, 1; Juneau, 2; Kenosha, 2; LaCrosse, 2; Langlade, 1; Manitowoc, 1; Marathon, 2; Marinette, 1; Menominee, 1; Milwaukee, 13; Monroe, 2; Oneida, 7; Outagamie, 1; Ozaukee, 11; Pepin, 1; Polk, 2; Portage, 5; Price, 3; Racine, 2; Rock, 2; Rusk, 1; St. Croix, 1; Sauk, 6; Sawyer, 1; Shawano, 2; Sheboygan, 3; Taylor, 3; Trempealeau, 2; Vilas, 2; Walworth, 2; Washington, 3; Waukesha, 3; Waupaca, 2; Waushara, 4; Winnebago, 4; Wood, 2. As usual, there was virtually no coverage in the southwestern corner of the state (only one person in Crawford County), with 9 other counties scattered through the state also not being covered.

Abbreviations used in the species accounts: BOP - beginning of period, EOP - end of period, TTP - throughout the period, m. obs. - many observers, and CBC - Christmas Bird Count(s).

SPECIES ACCOUNTS

Common Loon: Milwaukee and Ashland CBC, and (Ashman) Dane Co. through 22 Dec.

Pied-billed Grebe: Two records after the CBC: apparently one overwintered in Lake Monona, Dane Co., by the Madison Gas and Electric Co. discharge (Cederstrom), and one in Milwaukee Co. through 6 Jan. (m. obs.).

Double-crested Cormorant: One on the Ashland CBC.

Great Blue Heron: One on 31 Dec. in Dodge Co. (Horicon NWR) the latest record.

Black-crowned Night Heron: Milwaukee Co. through 17 Dec., and the Poynette CBC.

Tundra (Whistling) Swan: Migrants over LaCrosse Co. (Wilda), Monroe Co. (Epstein), and Sauk Co. (Lange) on 6 Dec., and Dane Co. on 9 Dec. (Thiessen). Noted on the Horicon and Trempealeau CBC. Latest dates: 31 Dec., Dane Co. (Thiessen).

- Mute Swan:** Scattered localities throughout the state. A pair and a lone bird overwintered for the second successive winter by the mouth of the Fox River in Neenah, Appleton Co. (Spreeman).
- Snow (and Blue) Goose:** Latest records: Horicon, Portage, and Lake Geneva CBC.
- Canada Goose:** Most of the 200,000+ on the CBC were at Horicon and Green Lake. 60,000+ remained at Green Lake and the surrounding area until 10 Jan. when the lake froze over completely (T.R. Schultz). TTP in the following counties: Racine (DeBoer), Milwaukee, maximum 400, all urban birds (Idzikowski; Woodmansee), Dane (Thiessen), and Brown (Cleary and Brother Columban). First migrants on 18 Feb. in Monroe Co. (Epstein), with additional migrants in three more southern counties, 21-22 Feb.
- Wood Duck:** Milwaukee Co., several TTP (m. obs.), Monroe Co., a male along a spring run probably overwintered (Epstein), and Eau Claire Co., a female TTP with Mallards (Polk). A migrant in LaCrosse Co., 26 Feb. (Leshner).
- Green-winged Teal:** One in Milwaukee Co., BOP - 8 Jan. (Idzikowski), and a male in Chippewa Co., 12 Jan. (Polk).
- American Black Duck:** TTP in southeastern and eastern Wisconsin, probably St. Croix Co. (Evrard and Bacon), Bayfield Co. (Roy), and the Ashland area (Verch).
- Mallard:** TTP in most sections of the state. Migrants by the end of the period, probably by early February in some areas.
- Northern Pintail:** TTP in Brown Co., 1 (Cleary and Brother Columban), and the Ashland area (Verch). Possible migrants in several counties in February.
- Blue-winged Teal:** LaCrosse CBC, two males.
- Northern Shoveler:** Dane Co., TTP (Thiessen), maximum 43 on the CBC. One other late record: one in Walworth Co., 6 Jan. (Tessen).
- Gadwall:** TTP in Dane Co. (Thiessen), and Brown Co., 1 (Cleary and Brother Columban). Milwaukee Co., BOP - 8 Jan., 12 (Idzikowski).
- American Wigeon:** TTP in Milwaukee Co., maximum 6 (Idzikowski), and Dane, maximum 15 on 15 Dec. (m. obs.).
- Canvasback:** TTP in Racine Co., maximum 7, 31 Dec. (DeBoer). A group of five migrants along the Wisconsin River by Ferry Bluff, Sauk Co., 28 Feb. (Lange).
- Redhead:** TTP in Dane Co., maximum 5 (Thiessen). One in Winnebago Co. through 17 Feb. (Ziebell).
- Ring-necked Duck:** TTP in Milwaukee Co., maximum 12,000 (Idzikowski). Two in Dane Co., 24 Feb., probably migrants (Cederstrom).
- Greater Scaup:** TTP in Lake Michigan, Kenosha to Door Counties (m. obs.).
- Lesser Scaup:** Dane Co., through 31 Dec., 3 (Ashman), and Walworth Co., 6 Jan., 1 (Tessen), then three in Rock Co., 16 Feb. (Tessen).
- Harlequin Duck:** One on the Milwaukee CBC.
- Oldsquaw:** TTP in Lake Michigan, Kenosha to Door Counties (m. obs.), and one in Dane Co., 9-16 Dec. (Ashman).
- Black (Common) Scoter:** 1 Dec., two in Ozaukee Co. (Tessen).
- Surf Scoter:** Ozaukee Co., through 8 Dec. (Jeff Baughman).
- White-winged Scoter:** Ozaukee Co., through 8 Dec. (Jeff Baughman), and one on Devil's Lake, Sauk Co., 15 Dec. (Lange).
- Common Goldeneye:** TTP in Lake Michigan, Kenosha to Door Counties (m. obs.), Marinette Co. (Lindberg), Winnebago Co. (Ziebell), Sauk Co. (Lange), Dane Co. (Thiessen), Chippewa Co. (Polk), Barron Co. (Goff), St. Croix Co. (Evrard and Bacon), Iron Co., below the dam on the Montreal River and the Flambeau Flowage (Butterbrodt), and the Ashland area (Verch). Migrants by 17 Feb. in Winnebago Co. (Ziebell), and in the last week of Feb. in Crawford, Monroe, Douglas and Bayfield Counties.
- Bufflehead:** TTP in Lake Michigan, Racine to Door Counties (m. obs.).
- Hooded Merganser:** A female TTP in Eau Claire Co. (Polk). Birds in Crawford Co., 26 Feb. (Leshner) and Douglas Co., 16 Feb. (Jeff Baughman and T.R. Schultz), may have been migrants.

Common Merganser: TTP in Lake Michigan, Racine to Door Counties (m. obs.), Winnebago Co. (Ziebell), Dane Co. (Thiessen), Sauk Co. (Lange), and the Ashland area (Verch). Birds in Barron Co., 14 Feb. - EOP (Goff) and Douglas Co., 16 Feb. (T.R. Schultz), may have been migrants.

Red-breasted Merganser: TTP in Lake Michigan, Milwaukee to Door counties (m. obs.).

Ruddy Duck: No records after December.

Bald Eagle: TTP in northwestern and west-central Wisconsin; migrants in the second half of February.

Northern Harrier: For the CBC, a record number, 81, on 29 counts. TTP in Rock Co. (Mahlum), Kenosha Co. (DeBoer), and Dodge, Ozaukee and Washington counties (Jeff Baughman). Other birds lingered into January in Sauk Co. (Swengel), Buffalo Co. (Wilda), and Douglas Co. (Johnson). Migrants on 8 Feb., Fond du Lac Co. (Ziebell), 9 Feb., Dane Co. (Thiessen), 17 Feb., Jackson Co. (Wilda), and 27 Feb., Shawano Co. (Peterson).

Sharp-shinned Hawk: For the CBC, a record number, 39, on 18 counts. TTP in Sauk Co. (Lange; Swengel), Green Lake Co. (T.R. Schultz), and Ozaukee Co. (Jeff Baughman). Migrants on 19-21 Feb. in Milwaukee Co. (Zehner) and 20 Feb. in Monroe Co. (Epstein).

Cooper's Hawk: TTP in the following counties: Eau Claire and Chippewa (Polk), Sauk (Lange), Green Lake (T.R. Schultz), and Milwaukee (Idzikowski). Migrants from 16-27 Feb. in Fond du Lac, Manitowoc, Door, Dane, and Monroe Counties.

Northern Goshawk: The only contributor to document an accipiter was Mueller, who did so for an immature Goshawk in Milwaukee Co. which he found on 16 December. Goshawks were noted in a total of 19 counties, mostly in the northern part of the state; the main exception was Monroe Co., where Epstein found at least six during the period. Single birds on 17 Feb. in Dane Co. (Cederstrom) and 24 Feb. in Sauk Co. (Lange) most likely were migrants.

Red-shouldered Hawk: At least one TTP in Mirror Lake State Park, Sauk Co. (Swengel), an adult on 21 Jan. in Monroe Co., 1/4 mile from a nest active in 1984 (Epstein), and one on 3 Feb. by the hydroelectric dam in St. Croix Falls, Polk Co. (Hudick).

Red-tailed Hawk: Northward to Brown Co., TTP (Cleary and Brother Columban), Shawano Co., 3 Jan. (Peterson), Marathon Co., TTP (Luepkes), Burnett Co., through 17 Jan. (Hoefer), and Douglas Co., BOP - 17 Feb. (Johnson). Migrants on 24 Feb. in Marathon Co. (Luepkes) and 26-28 Feb. in Monroe Co. (Epstein).

Rough-legged Hawk: Epstein in Monroe Co. found this species commonly in Dec. and Jan. but rarely in Feb. until the 28th; the low numbers coincided with deep (8 inches +) snow cover. Migrants throughout Wisconsin in February, the earliest date being the 11th in Fond du Lac Co. (Ziebell).

Golden Eagle: Seven on four CBC, a record number. Later reports: Epstein in Monroe Co. found at least three, an adult and a sub-adult, from late Jan. through 19 Feb., and an immature on 2 and 12 Feb., Leshar saw an adult in LaCrosse Co. on 18 Feb., and DeBoer saw an adult at Crex Meadows in Burnett Co. on 23 Feb.

American Kestrel: TTP northward to Brown Co. (Cleary and Brother Columban), Marathon Co. (Luepkes), Barron Co. (Goff), and St. Croix Co. (Evrard and Bacon). Migrants in seven counties, including Bayfield Co. (Swengel) in February, mainly the 20th-24th, but as early as the 8th in Fond du Lac Co. and the 10th in Winnebago Co. (Ziebell).

Merlin: One in Milwaukee Co., 1 Dec. (Tessen), single birds on the Mt. Horeb and Lake Geneva CBC, and one in Sauk Co., 4 Jan. (William A. Smith via Lange).

Peregrine Falcon: Douglas Co., 13 Jan. - 17 Feb. (several observers).

Gyr Falcon: One at Lake Geneva, Walworth Co., during the CBC period, and three in the Duluth-Superior harbor area during the period, including an adult that had been banded here last winter, a first return for this species (Dave Evans via Johnson).

Gray Partridge: Eastern Wisconsin, from Washington and Ozaukee Counties in the south to Door, Brown, Outagamie, Dodge and Dane Counties in the north and west (m. obs.), also St. Croix Co. (Evrard and Bacon).

Ring-necked Pheasant: Northward to Brown Co., TTP (Cleary and Brother Columban), Marathon Co., TTP (Luepkes), Rusk Co., 26 Dec. (Polk), Barron Co., TTP (Goff), Burnett Co., TTP (Hoefer), and Douglas Co., TTP (Johnson).

Spruce Grouse: Oneida Co. (Jeff Baughman and T.R. Schultz).

Greater Prairie Chicken: Arpin and Stevens Point CBC, also Marathon Co. (Luepkes) and Burnett Co. (Kooiker).

- Sharp-tailed Grouse:** Brule CBC, also Burnett Co., TTP (Hoefler; Kooiker), and Bayfield Co. (via Swengel).
- Wild Turkey:** Tomah and Clyde CBC, and Juneau Co.
- Northern Bobwhite:** West-central Wisconsin, north to Dunn and Eau Claire counties (Polk), northwestern Columbia Co., a total of approximately 25 birds in three different locations, 16 Jan. (Swengel), and Green Lake Co., TTP (T.R. Schultz).
- American Coot:** On 11 CBC in eastern and southern Wisconsin. TTP in the following counties: Brown (Cleary and Brother Columban), Winnebago, maximum 5 (Ziebell), Fond du Lac, Dodge and Ozaukee (Jeff Baughman), and Dane (Ashman; Cederstrom).
- Sandhill Crane:** 11 Jan., one flying in the Token Creek area, northeastern Dane Co. (Sue Martin via Lange).
- Killdeer:** Baraboo, Poynette, Racine and Kenosha CBC, and the Newburg CBC during the count period. Other records: one in Manitowoc Co., 14 Jan. (Sontag), and one TTP in Sauk Co. (Swengel). One in Monroe Co., 28 Feb. (T.R. Schultz), most likely a migrant.
- Dunlin:** Mueller found one in Milwaukee Co., 9 Dec.
- Common Snipe:** On 10 CBC in southern Wisconsin. TTP in Sauk Co., two areas (Swengel), and Monroe Co. where at least seven overwintered along a spring run (Epstein). Late January and February birds in Manitowoc, Green Lake, Dane and Crawford counties and the Ashland area very likely included migrants. The bird in the Ashland area was noted on 28 Feb., the first February snipe in this region (Verch).
- American Woodcock:** Two on the Madison CBC.
- Little Gull:** Milwaukee Co., BOP - 10 Dec., maximum 5, including 2 immatures (Idzikowski), and Ozaukee Co., 1 Dec., an adult in winter plumage (Tessen).
- Common Black-headed Gull:** Idzikowski in Milwaukee Co. on 21 Dec. found an adult, his 4th Wisconsin bird. See **By the Wayside** for documentation of this and other rare gulls.
- Bonaparte's Gull:** Milwaukee Co., through 6 Jan., maximum 160 on the Milwaukee CBC (m. obs.).
- Ring-billed Gull:** 3543 on 16 CBC, a record number. TTP along Lake Michigan, Racine to Brown counties (m. obs.), also TTP in Fond du Lac Co. (Jeff Baughman).
- Herring Gull:** TTP along Lake Michigan, Racine to Door counties (m. obs.), Marinette Co. (Lindberg), and Fond du Lac (Jeff Baughman) and Winnebago (Ziebell) Counties.
- Thayer's Gull:** The first state record was in Milwaukee Co. in March 1974 and the second in Douglas Co. a year later. At least three were in Milwaukee Co., 15 Dec. - 8 Jan. (m. obs.), continuing the trend of recent winters.
- Iceland Gull:** Single birds in Milwaukee Co., 6 and 12 Jan. (m. obs.).
- Glaucous Gull:** On 7 CBC, a total of 14 birds, 8 more than ever before. After the CBC: Milwaukee Co., 10 Dec. - 17 Jan., 1 (m. obs.), and Douglas Co., 8 Dec. - 12 Jan., maximum 2 (Johnson).
- Great Black-backed Gull:** 21 Dec., an immature in Milwaukee Co. (Idzikowski), and 6 Jan., an adult in Harrington Beach State Park, Ozaukee Co. (Jeff Baughman).
- Black-legged Kittiwake:** One on the Madison CBC, an adult on 21 Dec. and an immature on 28 Dec. in Milwaukee Co. (Idzikowski), and one on 29 Dec. in Ozaukee Co. (Idzikowski).
- Mourning Dove:** Northward to the following counties: Door, TTP (Lukes'), Marinette, TTP (Lindberg), Price, through 18 Jan. (Hardy), Ashland, through 20 Dec., 1 (Roy), and Douglas, TTP (Johnson). One in Trempealeau Co., 18 Feb. (Hunter), most likely a migrant.
- Barn Owl:** One on the Blanchardville CBC, and one banded in Iowa in 1984 was found dead in Waupaca Co., 12 Jan. (Peterson).
- Eastern Screech Owl:** Barron Co., TTP (Goff), St. Croix Co., TTP (Evrard and Bacon), and one on the Medford (Taylor Co.) CBC. otherwise confined to southern Wisconsin. Some idea of the results that might be obtained from a concerted effort to find screech owls is the total of 75 on the Madison CBC; whistled imitations and taped recordings, especially in the early hours, were the "bait".
- Snowy Owl:** Four on four CBC: Appleton, Oshkosh, Woodland Dunes SW, and Clyde. Later records from eight other counties; TTP only in Wood Co. (Luepkes).

- Great Gray Owl:** One banded in Polk Co., 23 Dec., by Follen (*The Country Today*, 9 Jan. 1985). Another banded in Taylor Co., 19 Feb., by Luepke and Follen; it had been in this area for about a month previous and was still there on 21 Dec. in Taylor Co., 19 Feb., by Luepke and Follen; it had been in this area for about a month previous and was still there on 21 Feb. (Polk).
- Long-eared Owl:** On 7 CBC in southern Wisconsin. Also three transients in Milwaukee Co., 5 Dec. - 24 Feb. (Idzikowski), and one in Marathon Co., 4 Feb. (Luepkes).
- Short-eared Owl:** On 7 CBC in southern and eastern Wisconsin. January and February records for five counties (Kenosha, Columbia, Fond du Lac, Monroe, Marathon), with some of these birds, at least in February, apparently migrants.
- Saw-whet Owl:** One on the Gilman (Taylor Co.) CBC, one calling in Taylor Co. on 21 Feb. (Polk), and one on 6 Jan. and another on 15 Jan. in Sauk Co. (Lange).
- Belted Kingfisher:** TTP in Trempealeau (Hunter) and Eau Claire (Polk) Counties, with January and February records for four additional counties (Jefferson, Sauk, Monroe, Shawano).
- Red-headed Woodpecker:** In relatively low numbers on the CBC; the highest numbers were on the Black River Falls, Trempealeau, and Willard counts. Verch reported above normal numbers for the Ashland area. Presumably there was a poor acorn crop in those places where this species was absent or in low numbers.
- Red-bellied Woodpecker:** Northward to and TTP in the Ashland area (Verch), Burnett Co. (Kooiker), Barron Co. (Goff), Marathon Co. (Luepkes), Marinette Co. (Lindberg), and Door Co. (Lukes'). Above normal numbers in Door Co. and the Ashland area.
- Yellow-bellied Sapsucker:** A total of 5 birds on the Beetown, Madison, Newburg, and Milwaukee CBC.
- Black-backed Woodpecker:** Douglas (Johnson), Burnett (Fuller), Oneida (Reardon), and Forest (Peterson) Counties.
- Northern Flicker:** TTP from Washington Co. to Sauk, Fond du Lac, and Washington Counties, and Door, Brown, and Marinette Counties. Northernmost records: Marathon Co., BOP - 2 Feb., maximum 2 (Luepkes), and Bayfield Co., 29 Jan., 1 (Swengel).
- Eastern Phoebe:** One on the Ephraim CBC (the only other CBC record was one on a Manitowoc Co. count two years ago).
- Barn Swallow:** One on 15 Dec. on the Madison CBC, at the sewage plant, south side of Madison, the first swallow found on a Wisconsin CBC; initially discovered by Thiessen, 9 Dec.
- Horned Lark:** TTP in Milwaukee, Rock, Dane, Green Lake, Winnebago, Door, Monroe, and Barron Counties. Maximum counts typically in February, mostly from the 8th - 19th (m. obs.).
- Gray Jay:** Across the northern tier of counties, south to Sawyer, Price, Oneida, and Taylor Counties (m. obs.).
- Blue Jay:** Idzikowski reported this species as being scarce during the harshest part of the period in Milwaukee Co.
- Common Raven:** Across northern Wisconsin, Douglas to Door Counties, south to Chippewa and Eau Claire Counties (Polk) and Monroe Co. (Epstein) in the west, and Shawano Co. (Peterson) in the east.
- Boreal Chickadee:** Brule CBC, also the following counties: Vilas (Reardon), Oneida (m. obs.), and Forest (Peterson).
- Tufted Titmouse:** North to Chippewa Falls, Adams Co., Green Lake Co., Jefferson Co., and Oconomowoc (m. obs.).
- Red-breasted Nuthatch:** Widespread but generally below normal numbers.
- White-breasted Nuthatch:** In Bayfield Co. on an outing in Dec. and another in Jan., Swengel found only one, but on 23 Feb. he found several, possibly migrants; this species is definitely more common here in summer.
- Brown Creeper:** Generally in normal numbers. TTP in the Ashland area (Verch) and the following counties: Barron (Goff), Chippewa and Eau Claire (Polk), Door (Lukes'), Fond du Lac (Jeff Baughman), Sauk (Lange), Dane (Ashman), Washington (Jeff Baughman), and Milwaukee (Idzikowski).

Winter Wren: Fond du Lac, Stockbridge, Woodland Dunes SW, Madison, and Milwaukee CBC.

Marsh (Long-billed) Wren: One on the Madison CBC.

Golden-crowned Kinglet: Remained into Jan. in Milwaukee (Mueller), Manitowoc (Sontag), Dane (Ashman), and Jefferson (Hale) Counties, with a few in Taylor (Luepkes) and Forest (Peterson; Reardon) Counties in Feb.

Ruby-crowned Kinglet: BOP in the Ashland area (Verch) and one on the Shawano CBC.

Eastern Bluebird: 8 Dec., Columbia Co. (Freese), and 16 Dec., Dunn Co., 3 (Polk).

Townsend's Solitaire: Again in Devil's Lake State Park, Sauk Co., for the 4th winter in the last six. Noted from BOP - 20 Feb., maximum 3, perhaps 4 (Swengel). Flycatching on warmer days and eating red cedar berries; singing in Nov. and Dec., with an abbreviated song on 10 Jan. (Lange). Also one in Columbia Co. at the Rocky Run Fisheries Area on a south-facing hillside in oaks and cedars, 1 Dec. (Wood), and one in a yard in Bayfield, Bayfield co., 11-14 Jan., eating buckthorn berries (Verch).

Hermitt Thrush: One on the Milwaukee CBC, one in Dane Co., 4 Jan. (Freese), and one in Sauk Co., 4 Jan. (Lange).

American Robin: Scattered throughout Wisconsin: TTP in the southeastern corner of the state (m. obs.), Dane Co. (Thiessen), Sauk Co. (Lange), Green Lake Co. (T.R. Schultz), Brown Co. (Cleary and Brother Columban), Door Co. (Lukes'), Eau Claire Co. (Polk), Iron Co. (Butterbrodt), and the Ashland area (Verch). Migrants in six southern counties by the end of February; four in Bayfield Co., 22-24 Feb. (Swengel), migrants?

Varied Thrush: Reported from seven counties: Barron, one at Goff's feeder, 2 Dec. - EOP; Price, one at feeders, 1 Jan. - 22 Feb. (Hardy); Taylor, one on the Gilman CBC, 17 Dec.; Portage, one in Lake Emily Park near Amherst Jct., 23 Dec. - 9 Feb. (when this bird was banded, it was noticed that the left hind toe was frozen and the nail was missing - Gustin); Waushara, 9 Dec. - 3 Feb. (m. obs.); Brown, 12 Jan. - EOP (Cleary and Brother Columban); Sauk, one at a feeder in the Baraboo Hills from approximately 18 Jan. - end of Feb. (m. obs.).

Gray Catbird: One on the Milwaukee CBC.

Northern Mockingbird: One on the Madison CBC, and (Lukes') one in door Co., BOP - 12 Jan.

Brown Thrasher: Six on six CBC: Gilman (Taylor Co.), Antigo, Appleton, Beetown, Madison, and Newburg. One or two may have overwintered along the Wisconsin River in Fairfield Township, Sauk Co.; noted there at least through 18 Feb. (Lange).

Bohemian Waxwing: Widespread but mainly in northern Wisconsin; southernmost birds on the Sauk City, Green Lake, and Fremont CBC. Large flocks (over 100) in Ashland Co. (150-250 in February: Jeff Baughman; Roy) and Bayfield Co. (maximum 210; Roy).

Cedar Waxwing: A record number, 2760, on the CBC, mostly in southern Wisconsin, then scarce until migrants began appearing toward the end of the period.

Northern Shrike: Widespread but generally in below normal numbers. Reported in 35 counties. A few migrants by the end of the period, e.g. 27 Feb. in Jefferson Co. (Hale).

European Starling: A few overwintered in Bayfield Co., with migrants being noted there on 23 Feb. (Swengel).

Cape May Warbler: Wisconsin's first reported winter Cape May was a daily visitor to Thomas Hunter's suet feeder in Trempealeau, Trempealeau Co., until a cold spell on 23 Dec.; this species previously had been known in Wisconsin through late Nov.

Yellow-rumped Warbler: One on the Oshkosh CBC and one on the Hales Corners CBC. Bielefeldt in Waukesha Co. has found this species several times in Dec. in the period, 1960-1983, in at least 5 local tamarack swamps, and this winter, on 15 Jan., he found two in a shrubby tamarack swamp and a third bird in another swamp. Also one, a male, in a tamarack swamp in Columbia Co., 16 Jan. (Swengel).

Common Yellowthroat: Two on the Madison CBC.

Northern Cardinal: Northernmost reports (TTP) from the following counties: Polk (Hudick), Barron (Goff), Iron (a pair at Butterbrodt's feeder; see the introductory remarks of this report), Marathon (Luepkes), Marinette (Lindberg), and Door (Lukes').

Rufous-sided Towhee: One at a feeder in Chippewa Co., 18-21 Dec. (via Polk), and the Merrill, Mt. Horeb, Cooksville, and Oconomowoc CBC.

American Tree Sparrow: TTP in the Ashland area (Verch) is noteworthy.

- Field Sparrow:** Richland Center, Sauk City, Mt. Horeb, Madison, and Lake Geneva CBC.
- Vesper Sparrow:** One on the Madison CBC and one on the Newburg (Ozaukee Co.) CBC.
- Fox Sparrow:** On 7 CBC in southern and eastern Wisconsin. One in Milwaukee Co. through 29 Jan. (Woodmansee), also one in Hartland, Waukesha Co., 25 Jan. (Smith).
- Song Sparrow:** TTP in Milwaukee (Idzikowski) and Kenosha (Bishop) Counties. February reports for the Ashland area and Rock, Sauk and Price Counties probably included migrants.
- Swamp Sparrow:** On 12 CBC in southern Wisconsin.
- White-throated Sparrow:** TTP in the Ashland area (Verch), Barron Co., one at a feeder with Tree Sparrows and Dark-eyed Juncos (Goff), and Trempealeau Co., maximum 3 on 22 Dec. (Hunter). January reports for Oneida Co., two on the 3rd (Tessen), Outagamie Co., through the 31st, two (Tessen), and Milwaukee County through the 24th (Frank).
- White-crowned Sparrow:** Milwaukee, Stevens Point, Wausau, and Spencer (Marathon Co.) CBC. Noted in Marathon Co. through 18 Jan. (Luepkes). Two TTP at a feeder in Madison, Dane Co. (Wirth), and one TTP in Kenosha Co. (DeBoer).
- Harris' Sparrow:** One at a feeder in Chippewa Co., 17 Feb. - EOP (Polk).
- Dark-eyed Junco:** Found in the following counties where the Tree Sparrow was not reported: Douglas, TTP (Johnson), Burnett, TTP (Hoeffer; Kooiker), Iron, BOP (Butterbrodt), Vilas, EOP (Jim Baughman), Oneida, 9 Dec. (Reardon), LaCrosse, TTP (Leshner).
- Lapland Longspur:** Found in 18 counties in the southern 2/3 of the state. Flocks of 100 and more in Rock Co., 24 Dec. (Cederstrom), on the Baraboo CBC, in Wood Co., 28 Jan. (Luepkes), and Marathon Co., 24 Jan. (Luepkes).
- Snow Bunting:** Found in 28 counties throughout Wisconsin. Flocks of 100 and more (up to 600) in the following counties: Manitowoc (Sontag), Brown (Cleary and Brother Columban), Door (Lukes'), Shawano (Peterson), Winnebago (Ziebell), Fond du Lac (Ziebell), Columbia (Ashman; Lange), Dane (Ashman), Juneau (Jeff Baughman), Monroe (Epstein), LaCrosse (Leshner), Marathon (Luepkes), Chippewa (Polk), and St. Croix (Evrard and Bacon).
- Red-winged Blackbird:** TTP in the following counties: Washington, Ozaukee, Dodge and Fond du Lac (Jeff Baughman), and Marathon (Luepkes). One, apparently a migrant, in Monroe Co., 21 Feb. (Epstein), then a big influx (maximum 500) in Fond du Lac Co., 27 Feb. (Ziebell), with migrants noted in five other southern counties on 28 Feb.
- Eastern Meadowlark:** Ozaukee Co., 6 Jan. (Jeff Baughman and T.R. Schultz).
- Western Meadowlark:** Dodge Co., 15 Dec. (Jeff Baughman).
- Rusty Blackbird:** Stevens Point, Oshkosh, Madison, and Horicon CBC. 23 Feb., one in Bayfield Co. (Swengel).
- Brewer's Blackbird:** Trempealeau, Willard (Clark Co.), Shawano, Plymouth, and Madison CBC. Jim Baughman reported this species in Vilas Co., 10 Dec. - 4 Jan., and Clark Schultz found one at a feeder in Winnebago Co., 25 Dec.
- Common Grackle:** TTP in the following counties: Bayfield and Ashland (Roy), Marathon (Luepkes), Winnebago (Ziebell), Fond du Lac, Dodge, Washington and Ozaukee (Jeff Baughman), and Dane (Thiessen). Migrants on 26-28 Feb. in the following counties: Rock (Mahlum), Milwaukee (Bontly; Frank), Jefferson (Hale), Sheboygan (Brassers), Fond du Lac (Ziebell), and Shawano (Peterson).
- Brown-headed Cowbird:** TTP in Dane Co. (Thiessen), Fond du Lac Co. (Jeff Baughman), and Marathon Co., maximum 3 on 4 Dec. (Luepkes). Migrants by the end of the period, e.g. in Rock Co. (Mahlum).
- Pine Grosbeak:** Fairly common only in northern Wisconsin. The only large flock (more than 35) was one of approximately 200 in Bayfield Co., 22 Feb. (Swengel). Southernmost records: Green Lake Co., 20 Dec. - 1 Jan. (T.R. Schultz) and Sauk Co., 6-10 Jan., 1 (Lange; Swengel).
- Purple Finch:** Population estimates varied, but most contributors reported normal numbers. The only reports of large flocks were from Peterson for Shawano Co., 1 Feb., and Graham for Oneida Co., 17 Feb.
- Red Crossbill:** Generally numerous in northern Wisconsin and scattered through the southern part of the state. Locally common, e.g. Price Co. (Hardy) and Sauk Co. (Lange). Flocks of 40 or more in Douglas Co., 1 Jan. (Johnson), Bayfield Co., 4 Dec. (Swengel), Forest Co., 3 Jan. (Tessen), and Menomonee Co., 3 Jan. (Tessen).

White-winged Crossbill: Confined to the northern 1/3 of the state, except for a few birds in Dane Co., 1 Dec. (Thiessen), the Sauk City and Milwaukee CBC, and Milwaukee Co. through 2 Feb. (Woodmansee). All large flocks (40-200) were found in Feb., except for a group of 50 in Douglas Co. on 29 Dec. (Johnson).

Common Redpoll: Fairly common in northern Wisconsin. The only reports for the southern 2/3 of the state were from Trempealeau Co., 22 Dec. (Wilda), Sauk Co., 27 Jan., 1 (Jim Harris via Swengel), Fond du Lac Co., 22 Dec. (Jeff Baughman), and Milwaukee Co., 6-16 Dec. (Idzikowski).

Hoary Redpoll: One on the Ashland CBC, and (Swengel) at least five in a flock of Common Redpolls in Bayfield Co., 29 Jan.

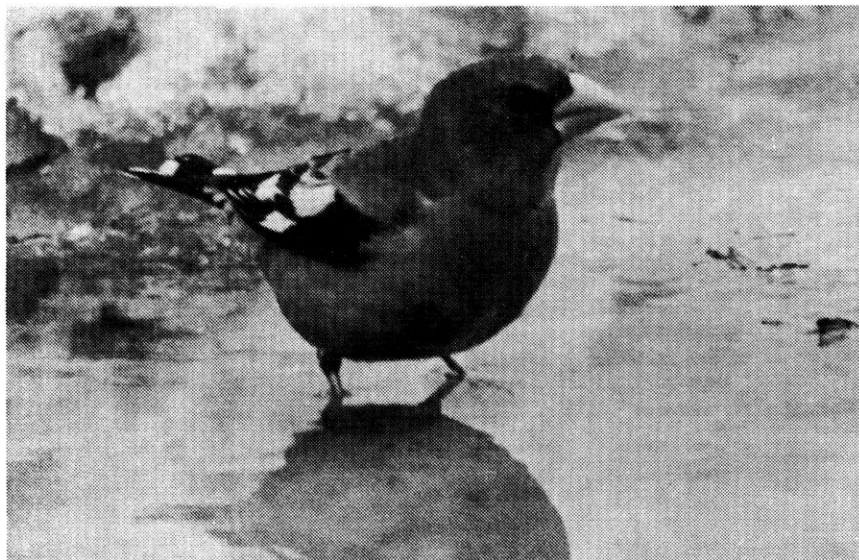
Pine Siskin: Fairly common in northern Wisconsin, with scattered reports for the southern part of the state. Flock size was generally small (30 or less), except for a group of 43 in Douglas Co., 30 Jan. (Johnson), one of 48 in Bayfield Co. (Roy), and one of 200-300 in Oneida Co., 15 Feb. (Jeff Baughman).

American Goldfinch: A record number, 11,562, on the CBC. Hardy in Price Co. suggested that the heavy crop of yellow birch seed and the available weed seeds may have supported this species until it shifted to feeders.

Evening Grosbeak: Fairly common in northern Wisconsin; the only report for southern Wisconsin was Jeff Baughman's for Fond du Lac Co., 22 Dec. The Luepkes found the largest flock, 135, in Marathon Co. on 17 Dec.; flock size otherwise was 50 or less, usually about 20.

CONTRIBUTORS

Philip Ashman, Bruce Bacon, Jeffrey L. Baughman, Jim Baughman, John Bielefeldt, Homer C. Bishop, Marilyn Bontly, David and Margaret Brasser, Mary E. Butterbrodt, David Cederstrom, Edwin D. Cleary and Brother Columban, Gerald DeBoer, Eric Epstein, Jim Evrard, Don G. Follen, Sr., James Frank, Frank Freese, Pepper Fuller, Alta Goff, Ernie Graham, Thomas R. Gustin, Karen Etter Hale, Maybelle Hardy, Judy Haseleu, James Hoefler, Horicon National Wildlife Refuge personnel, Joseph P. Hudick, Thomas Hunter, John Idzikowski, Robbye Johnson, Paul Kooiker, Hans and Eleanor Kuhn, Kenneth I. Lange, Fred Leshner, Harold Lindberg, Ken and Jan Luepke, Roy and Charlotte Lukes, Gyda Mahlum, Mark and Sue Martin, Pat Parsons, Mark Peterson, Janine Polk, Bill Reardon, Albert Roy, Norma and Earl Schmidt, Clark Schultz, Thomas R. Schultz, Dennis R. Schwartz, Raymond Smith, Charles Sontag, Michael Spreeman, Scott Swengel, Daryl Tessen, Steve Thiessen, Dick Verch, Gilbert Walters, Melvin Wierzbicki, Curt Wilda, Stan Wirth, Winnie Woodmansee, Norma Zehner, Tom Ziebell.



—Photo by Roy Lukes

By the Wayside...



Thayer's Gull In Milwaukee

December 29, 1984 — South Shore Yacht Club — 2 Birds

December 31, 1984 — South Shore Yacht Club — 2 Birds

January 1, 1985 — Coast Guard Impoundment — 1 Bird

January 6, 1985 — South Shore Yacht Club — 2 Birds

(Editor's Note: The photos mentioned in the text are not reproduced here.)

At the above locations over the given time periods three winter adult Thayer's gulls were observed (through close field observation and study of over 200 photographs taken of these birds). The birds were observed and continuously compared with large groups of Herring and Ring-billed Gulls. The birds were viewed at distances of 10-250 feet in many different positions (standing, sitting, flying, and swimming).

The only differences among the three individuals was the amount of mottling about the head and breast. Thus allowing determination of more than one or two Thayer's. The remaining field markings were consistent from bird to bird. (Photo's 3 & 4 - darkest and lightest birds. #16 - med. and lightest birds.)

Head and Breast

1. Heavily streaked with brown about the head and breast. The amount of mottling (light & dark areas) was highly variable from bird to bird but was present down the nape to mantle and formed a bib at or just below the water level in swimming birds. This overall mottling gave the bird a somewhat hooded effect. (Photo's - darkest bird #2, 7-10 medium bird #17-21 lightest bird #3,4,22).
2. Light feather areas were from the base of the bill to the malar area and up the forehead to the crown. (Photo's #19,20) This feature was quite variable with the lightest bird having these areas extend through the crown and malar areas to the nape. (Photo's #3,4).
3. The mottling of the head seemed to aggregate about the eye (became more intense). This together with a dark iris gave the birds a nice "black-eye" or "shiner" appearance. This feature proved to be an easy way to pick out the birds while swimming or standing among the other gulls (Photo's #2,7-10,16-20).

4. The head appeared to be higher peaked than any Herring Gull present. It seemed to peak at a line perpendicular to the rear edge of the eye. (this feature was checked in the three latter observations after research showed this could be true) (Photo's #9, 16-18) All the Herring Gulls checked showed the head peaked much farther back of the eye giving them a flat headed look. (Photo #16 the two birds at the lower left of the slide.)

Eye

From about 25-30 feet, with a Spacemaster Zoom @ 45X, the birds had a brown iris and purplish orbital ring. (Photo's #7-9) The eye at other distances and powers appeared black where the similarly aged Herring always appeared light (yellow). (Photo's #10,22,28).

Bill

1. When compared to a winter adult Herring (next to it) the Thayer's bill was about of equal length.
2. The color showed a two toned effect, showing a yellow tip and grayish-yellow the remainder of the length. The gony had a red spot as did the Herring Gull of the same age. (Photo's #7-9,17-19).
3. The culmen was stright from the base of the bill to the curve at the tip. The Thayer's did not show the large ended "bulbed" tip the Herring gulls did (Photo's #17-19).

Legs

Color was pink, about the same as in the Herring Gull, but at times it appeared a deeper pink (depending on the light conditions). (Photo's #12,15,25).

Mantle

Color was slate-gray and noticeably darker than a similarly aged Herring Gull. (Although we, Tom Schultz and I, found in photographs the mantle color was highly effected by light to a point where the mantles were nearly identical) (Photo's #3,10,12,22,28).

Wing

A - Standing and Swimming

1. The tertials and scapular crescents showed more white than did any winter adult Herring Gull present. This along with the darker mantle gave the Thayer's a more contrasting dorsal look.
2. In the folded wing and the upper surface of the outer 4 primaries looked very much like the Herring Gull (black), but the white tips of these feathers were about .25X larger (Photo #28).
3. When facing away the under surface appeared white to light gray.

B. - Flying

1. Under Surface of the wing was very light gray to white, except in the outer 6 primaries which showed dark spots. These spots varied in size and position from feather to feather, but were confined to the outer portions of these feathers. (Photo'e #22,24-27).

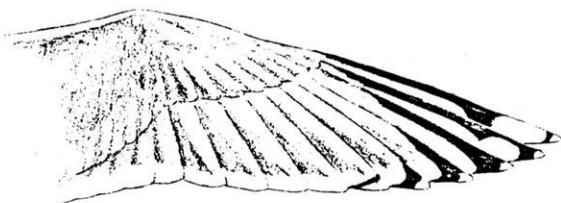
Primaries #9 & 10

- A. Showed 2 dark spots, one on each side of the larger white mirror spot. The inner spot being larger than the outer in the #10 and reversed in #9. (Photo's #26-27).
- B. The mirror spots on the Thayer's were much larger than in any winter adult Herring Gull. (Photo's #3,22).

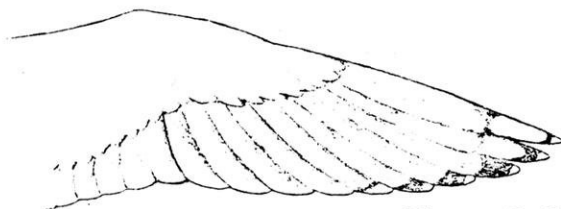
Thayer's Gulls - Wingtip Patterns (Adult)

3 birds seen in Milwaukee — Dec. 30th & 31st, 1984, Jan. 6, 1985

Upper Surface



Lower Surface (when lighted from below)



Thomas R. Schultz
Route 2, Box 23
Green Lake, WI 54941

Primaries #8-5

- A. Showed single dark spots near the tips of these feathers. The size of these decreased from #8 to #5 primary, with #5 showing only a dark subterminal mark. (Photo's #24-27).
2. Upper Surface of the wing showed much more contrast than did any Herring Gull. This was evident by the amount of white in the wing tip and the width of the trailing edge of the secondaries (giving the wing area a "flashy" appearance.)

The black area to the wing tip was restricted again to the outer 6 primaries and again varied in size and position from feather to feather. (Photo's #3,11-13,22,24) This dark area formed a triangular wedge with a white bar running through it to the mirror spots of the last two primaries. (Photo's #12,13). This white bar was continuous from the trailing edge of the secondaries through the wing tip (bar ran from wing tip to wing tip). (Photo's #3,5,11-13,15).

The white trailing edge of the secondaries seemed to be slightly wider than the Herring Gull, thus adding to the wings "flashier" effect in flight. (Photo's #3,12).

Previous Experience

Tom Schultz and I, have had an unusually lucky fall and winter with observing Thayer's gulls. On a trip to Superior we saw three additional gulls which we identified as Thayer's.

This documentation was written from extensive field notes and study of slides. The final draft was completed 3/20/85.

Jeffrey L. Baughman
Box 343
Kewaskum, WI 53040

Kumlien's Iceland Gull in Milwaukee

On January 6, 1985 an adult winter-plumaged Kumlien's Iceland Gull was closely studied and photographed at the South Shore Yacht Club in Milwaukee. It was seen in the presence of two adult winter Thayer's gulls, as well as Herring Gulls of all ages, and it often could be observed at distances of less than 30-40 feet as it swam about, and occasionally took flight. Comparisons with the Thayer's Gulls were easy to make, for the birds were often seen in close proximity on the water. About three hours were spent in these studies.

My description of the bird is as follows:

Size: Approximately equal in size to, or perhaps slightly smaller than the Thayer's gulls.

Mantle Color: Definitely paler gray than the Thayer's Gulls, and approximately the same color as the adult Herring Gulls.

Head and Neck: White, with fairly dark, dusky-gray mottling on the head, neck and upper breast, which terminated in a border on the lower edge, similar to Thayer's Gulls, but was more "ragged" into the white breast. The mottling was more uniform about the head and neck, not showing the white areas behind the cheeks, or the prominent white face area around the bill and up the forehead. The mottling was slightly less "softened" on the edge of each mark than on the Thayer's Gulls, so that the individual markings, or vertical streakings on the breast and neck were slightly more discernible.

Head Shape: Rounded crown, with a similar-shaped profile to the Thayer's Gull, although the back of the head seemed perhaps slightly more "puffy" and less compact.

Bill: Smaller than any Herring Gull bill I could see, and also slightly, but noticeably smaller than the bills of the Thayer's gulls, both in length and depth. It appeared more similar in shape and size to a Ring-billed Gull's bill. It did not have the two-toned color effect of the Thayer's Gulls' bills, but was yellow throughout the length. Each side had a red spot on the lower mandible at the gonys angle.

Eyes: Dark in appearance, but didn't stand out as obviously as the Thayer's Gulls' eyes. The irides were not dark brown, (when seen through a scope), but rather an amber or amber-tan with small darker fleckings scattered throughout. The black pupil stood out more obviously than in the Thayer's Gull's eye. The eyes also appeared smaller than the eyes of the Thayer's, due partly it seemed, to the lack of dusky coloration on the feathers immediately encircling the eyes. Instead, this bird seemed to have small, pale crescents above and below each eye.

Legs: Pinkish, although not well seen. This bird was only seen swimming and flying.

Wings: The dark upper wingtip markings were somewhat similar to those of the Thayer's Gulls, but were slightly paler and less extensive. When seen swimming alongside a Thayer's Gull, the primaries were not nearly as black, but rather a dark slate gray.

The white tips were slightly larger, and more of the pale gray of the inner primaries was seen in the folded wing, since the dark markings extended only to the fifth (and not the sixth) primary. This fifth primary had only one small dark bar, very similar to the sixth primary of the Thayer's Gulls. The first (outer) primary had a moderately long white tip (perhaps two inches)

with the mirror extending right to the tip. There was no small black bar near the tip of this feather as was present in the Thayer's gulls. Otherwise, the dark primary markings were similar to the Thayer's Gulls', with the markings primarily confined to the outer web of each feather. The Iceland Gull also showed the large white spot on the inner web of each of these first five primaries, which, like the Thayer's Gulls', ran across the wingtip in a band. They appeared slightly larger than those of the Thayer's Gulls.

The underwing of this bird was almost completely pale, with only a small, pale gray bar on the outer primary, just inwards from the large white mirror. The rest of the primaries appeared to have no markings at all below, (or if present were very pale) making the entire underwing appear whitish.

This bird was also seen at this time by Jeff Baughman, Patti Moos, Wendy Schultz, and Don and Claire Whitney.

Thomas R. Schultz
Rt. 2, Box 23
Green Lake, WI 54941

Extra Note: I realize that darker Kumlien's Iceland Gulls and paler Thayer's Gulls may be very difficult or impossible to separate in the field, (and in fact, the two may be someday combined into one species) but I believe that for this bird the evidence points more toward Iceland Gull, due to the tiny bill and other characteristics. Some of the comparisons I have made involve characteristics not covered well in the literature, (differences in winter mottling and bill color, for example) but it is hoped that some of these can be examined more carefully on birds seen in the future (or study skins) to add to the knowledge base for field separation of these birds.

Winter Gulls in Milwaukee County

I. Great Black-backed Gull

21 December, 1984 was a day typical of a pattern of weather that had been with us for the last week - unseasonably warm temperatures bringing lake effect rains and strong northeasterly gales to Milwaukee as lows rapidly moved across the state. Late December at the Milwaukee Lakefront can be quite good as the last of autumn's gulls and waterfowl are pushed south with cold fronts carrying cold air unlike any of the fall season. On this day such a front was rapidly approaching from the northwest but the low associated with the system still lingered on the 21st at the midday hour as I pulled up to the Juneau park Lagoon. If the old saying that states that bad weather is good for bird-finding has any merit today was sure to be one of my best days as a steady rain made conditions quite uncomfortable in conjunction with a strong northeast wind. For one interested in gulls this sort of weather is great as thousands of birds may be driven inland to wait out the rough lake during autumn and winter gales. Today was certainly the case as I eventually estimated some 6000 birds on the great lawn of the Juneau Park fill area just east of the lagoon waiting for the gale to ease up; before it did, however I was to have a chance to get to know some of these birds.

As I sloshed through the first few feet of what was once grass I glassed the groups of birds in the lagoon and nearby (150 yards) only to find a majority of Ring-billed Gulls, well over 95% adults as is typical of late fall concentrations in Milwaukee, a lesser number of Herring Gulls of many ages and at

least 80 Bonaparte's Gulls farther out on the fill. The distinctive change of wind direction to the southeast and the near cessation of the rain encouraged me to trek out into the swamp of the lawn on the fill site itself into the midsts of the numerous flocks of gulls. A thinner cloud cover improved visibility; there was no fog or mist by this time. Even without the aid of binoculars I could see the great size of a Great Black-backed Gull (Basic I) in with the first group of Herring Gulls I approached on the fill. This bird was over twice the size of many of the smaller and even the average sized Herring Gulls provided for direct comparison. The bird stood nearly 1.5 times taller than the H.G.s nearby and the very thick (dorso-ventrally) and nearly black bill stood out in a virtual accent to the overall size of this bird. The all dark bill contrasted with the two-tone bill of the nearby Basic II Herring Gulls as did the nape and hind neck which was lighter than the back than in the corresponding H.G.s. When the bird flew to the Lagoon were I later photographed it I noted that the rump contrasted with the dark, scaly back in that it was quite whitish with only some nearly unnoticeable brownish-gray streaking and spotting; this whitish color extended onto the rectrices which seemed grayer as they proceeded distally to the dark terminal tail band. The tail itself was quite long in proportion to that of nearby H.G.s; at rest it extended nearly as far as the folded wing tips but gave the bird a longish appearance along with its bulk when it flew. The primaries appeared dark throughout, possibly darker than those of Basic I H.G.s. The legs were dull pinkish, not really different than H.G.s except for being longer and thicker. When this bird flew the large, chunky body together with the long tail were apparent for a great distance as was the light head and rump contrasting with the dark primaries and back. The large dark bill stood out like a banner as this bird was seen by several other observers as it would fly in and out of the lagoon area - this was an often noted character. The rhythm of the wingbeats was slower than in a flying Herring Gull. This bird seemed to be rather a loner and was seen by itself in the harbor several times in the days to come.

II. Black-legged Kittiwake

After leisurely observing a Gr. Black-backed Gull in a large flock of Herring Gulls resting on the lawn of the Juneau fill site I noticed that the light rain was ceasing and the wind had died and was beginning to shift to the south-southeast as a cold front approached; it was also evident that the thousands of gulls waiting out the storm were getting quite skittish and restless as the clouds thinned and the Lake looked more attractive. I turned my attention to a flock of adult Ring-billed and Bonaparte's Gulls; as I approached the flock to within 50 yards I realized that I was too close for conditions and the closest part of the group took to the air and headed out to the Lake or out to a huge flock still on the fill some 200 yards away. I glassed (10X40) the departing birds first looking over the Bonis (10 or 15) when a group of 20 or so Ring-bills took to the air. A slightly smaller bird attracted my attention immediately as it had a more buoyant flight than the Ring-bills in its company and the wingtips were a very dark black, devoid of windows; not only were the wingtips very dark but the shape of the black triangle was different with respect to the wing shape than in adult Ring-bills. The inner edge of the triangle was perpendicular to the leading edge of the wing, accentuating the "dipped in ink" effect; there was little contrast between the dorsal and ventral surfaces of the wingtips as well. The feet were folded to

the bird as it flew except for a blackish hint of a trailing, protruding foot; an attempt to discern any markings on the nape resulted in the noting of only a slightly darker shadow forming a curved cigar behind the head not nearly as dark as I suspected it should be, but well within the range of variation for this species at this age shown in the various field guides. At no time were the dusky head markings shown in some guides noted. All of this occurred within 5 seconds before I caught myself to note the tail was entirely white but appeared cut off in direct comparison to the flying Ring-bills which were obviously rounded. As the bird turned slightly one could see that the inner rectrices were slightly shorter giving the bird only a suggestion of a forked tail, not at all what the field guides show (as is apparently consistently the case?) The real clincher for me was that virtually at the time I thought that it would be nice if the bird turned its head - it did! The head appeared slightly smaller than that of the Ring-bills with a shorter and thinner bill that was clearly unmarked, dull yellow. The time of effective identification observation was no more than 15 seconds as the bird was flying. For another 20 seconds I could easily find this bird in with the flying Ring-bills by the jizz of the flight and the black of the wingtips. As the birds flew into several lighting conditions as it banked and turned I observed that the mantle color was not really different from that of the adult Ring-bills. The bird flew over a slight rise near a large flock of mixed gulls and probably back to the comfort of the big lake as it could not be located in this flock later that day.

III. Common Black-headed Gull

After having just observed a Gr. Black-backed Gull and an adult Black-legged Kittiwake while on the great lawn of Juneau Park near the Milwaukee lakefront I turned back to my car in order to drive to a large flock of gulls some 200 yards east on the lawn into which I suspected that the Kittiwake had flown; I immediately upset a small flock of 14 Bonis and 8 Ring-billed Gulls, all adults. The Bonis broke off to the southeast towards the lake while I quickly glassed them; the Ring-bills together with 3 Bonis flew straight ahead of me some 100 yards to the flocks on the ice of the lagoon. As I glassed this flock from the rear the small size of the Bonis was obvious, but one bird with a boni pattern on the wingtip dorsum (white triangle contrasting with a pale gray mantle) was just **slightly** smaller than the Ring-bills! It took another few seconds for the birds to make their final approach to the flock in the lagoon; when they did this bird banked three times and hovered once briefly to show the darkish brown venter of the outer primaries (I had a feeling that at least the 5 outer primaries were involved in this contrast to the white wing linings). The 2 white outer primaries shown in the literature were not easily noted at this distance, only the darkened effect of the outer wing venter. I quickly moved closer to the lagoon after the bird had landed on the ice and soon spotted it by its size. In direct comparison to adult Bonis on the ice I could see the larger reddish bill and the large legs and feet which were a deeper red which appeared duller than the bill color, probably due to shadow. What bothered me was the fact that the bill did not give the "ski-nosed" impression that I have seen on three other birds. This apparently was due to the fact that the bill was just slightly smaller than in these other birds. The Bonis soon flew away leaving the bird only with adult Ring-bills when I was able to get only one photo of fair quality. At no time was the brownish mark behind the eye very distinctive as illustrated in the field guides. It was more noticeable when the bird stretched and was obviously longer up and down than any spot behind the

eye of a Boni. This bird remained until 13:30 after which it located again, but was seen by Mary Donald before its departure. At this time I relocated the bird and realized that I had failed to note the color of the mantle; after some searching I found some Bonis some 25 feet away and made an indirect comparison noting in this less than ideal light that the shade of gray of the Black-headed seemed lighter than in the Bonis or even in the Ring-bills which afforded a direct comparison.

John Idzikowski
418 E. Plainfield Ave.
Milwaukee, WI 53207

*Save the
Wetlands
for the
Cranes*

**Mary and
Charlie Nelson**



Book Review

A Birdwatcher's Miscellany. Edited by Rob Hume. Forward by Bill Oddie, Blandford Press Poole, Dorset, UK. Distributed in the U.S. by Sterling Publishing Co., Inc. 2 Park Ave., New York, NY 10016. Price: not given. 192 pp.

Buried under piles of correspondence, unpaid bills, half finished projects, and other clutter, I discovered a copy of this book sent to me for review. I had put it aside months ago as it did not look very interesting at the time. I have encountered some very mediocre bird watching anthologies before. And, with the humungous number of magazines, journals, television programs, radio programs, daily newspapers clamoring for attention, it is very easy to overlook or put aside lots of worthwhile things. My hat is off to those erudite, methodical, energetic souls who manage to get everything done, and never seem to have their desks cluttered.

This book is really a very delightful, if not erudite book. It can be read with pleasure and satisfaction by both birdwatchers and non-birdwatchers. If any book can explain to my wife my obsession with birds — I doubt it — perhaps this one can. I'm going to suggest she read it. And I hope she doesn't return the favor by offering me one of her romantic novels.

A lot of ornithological literature is so unembellished and so dull, dull, dull. I've often wondered if there is a special post-graduate course in universities which teach the student how to lose the reader. The first semester is probably devoted to incomprehensible mathematical equations and statistical irrelevance; the second semester to unintelligible syntax and how to put off the layman by being boring.

The author says it well, "The extracts quoted in this book are offered as an attempt to convey some of the kinds of pleasurable experiences which birdwatching offers. The object has not simply to go for the purple prose.... I have been prompted to select things, which, above all are a good read. The whole object of the book is to supply just that... It is possible to write well and attractively whilst giving accurate and valuable information... scientifically correct and important material can, indeed, be written in an exciting and imaginative manner."

The fact that this is a British book means many of the birds encountered are unfamiliar to Wisconsin birders. This does not detract — actually it enhances its interest. All in all I found this an excellent little book, to be recommended enthusiastically.

Among the many authors quoted are Derck Godwin, Len Howard, Edmund Selores, John Walpole-Bond, James Fisher, Ronald Lockesy, Seton Gordon, Bryan Nelson, Richard Meinertzhagen, Guy Mountfort, David Bannerman, and Sir Peter Scott.

Dr. Charles Kemper

Letters to the Editor

Dear Dr. Kemper:

I think that many WSO members will be interested in this book. Since it is not available in regular book stores, a note in **The Passenger Pigeon** might help bring it to their attention.

Birds for Real by Rich Stallcup

Since its publication in 1966, "Birds of North America" by Robbins (the other one), Bruun and Zim has been a standard field guide for birders, challenging the long held monopoly enjoyed by the works of Roger Tory Peterson. But right from the start, many serious birders pointed out that among its many merits, the book had some serious flaws, particularly in the illustrations by Arthur Singer.

When a revision was announced, it was hoped that corrections would be made but when the new edition appeared in 1983 a number of new species had been added and some slight changes made in the text and range maps, but the original artwork remained, uncorrected.

As an aid to birders who have had troubles matching the birds that they were seeing with those shown in the book, Rich Stallcup, a professional bird tour leader and one of America's top field ornithologists has produced a small book pointing out what he felt were serious errors in "Birds of North America" and indicating appropriate corrections.

EXAMPLE: Western Grebe - Note that there are two easily indetified forms which may be good species. The one pictured is *A. O. occidentalis* which has a greenish yellow bill with dark ridges and a dusky tip; the eye in the dark parts of the face; dark sides and a doubled vocalization, a croaked "arrah arrah". *A. O. clarkii* has a large, all yellow-orange bill; the eye is in the light part of the face; the sides are whiter, higher on the birds; and the vocalization is a single croaked "arrah" (rising). This single note is longer than either single element of *occidentalis* call.

In addition to pointing out and correcting errors, Stallcup provides many useful tips on identification. "Birds for Real" can be obtained directly from the author at:

Birds for Real
Box 36
Inverness, California 94937

The cost including postage is \$7.00 (checks payable to Rich Stallcup).

Sincerely,
Frank Freese

ANNOUNCEMENT OF W.S.O. GRANTS

Funds are short for environmental problems and education in these days. Many graduate students need help. But so do other people with good ideas; they also need money for independent projects.

Ornithology has never been limited to professionals. Let's keep it that way! W.S.O. wants to encourage both -- so offers two kinds of grants.

GRANTS AVAILABLE

The Steenbock Award (not for graduate programs)

A \$200 award is offered annually in May. Even beginners (of any age) may apply. Graduate students and professionals in ornithology, etc., may not apply except for "personal projects" that have not been authorized by their supervisors. Nobody needs to recommend you (The Committee will follow up if need be.)

The W.S.O. Scholarship

A \$200 to \$400 scholarship will be awarded in May. **Anyone may apply.** The scholarship might be awarded to further an officially recognized project. Give names and addresses of two references if applying for an officially recognized project, such as a graduate or D.N.R. program.

The Rules

To apply, give your name, address, phone number, and occupation. Type, on a single sheet, what you want to do and how you want to do it.

Write by April 1, 1986 to:
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Chmm. Scholarship Comm.
Route 1, Box 448
Plainfield, WI 54996

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3352 Knollwood, West Bend, WI 53095 (Office 414—277-2179)
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5613 Comanche Way, Madison, WI 53704 (608—249-5684)

Education: Bill Volkert,

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W.S.O. Lands: Gordon F. Cox

1004 N. Willard Ave., Janesville, WI 53545 (608—752-6870)

Legal Counsel: Robert W. Lutz,*

50 E. Main St., Chilton, WI 53014 (414—849-2040)

Convention Chairman: Jay Dykstra,

Dept. Biology, 247 Gardner Hall, UW-Platteville
Platteville, WI 53818 (Office 608—342-1793)

Field Trips: Edward W. Peartree,*

36516 Lisbon Rd., Oconomowoc, WI 53066 (414—567-4086)

Publicity: Noel J. Cutright

3352 Knollwood, West Bend, WI 53095 (Office 414—277-2179)
(Home 414—675-2443)

Research: Stanley A. Temple,*

Dept. of Wildlife Ecology, (Office 608—263-6827)
Univ. of Wisconsin-Madison, WI 53706 (Home 608—795-4226)

Scholarships and Grants: Frances Hamerstrom,*

Rt. 1, Box 448, Plainfield, WI 54966 (715—335-4100)

Supply Department Manager: Chuck Gilmore,*

246 North High St., Randolph, WI 53956 (414—326-3221)
Handles orders for books, etc. Catalog available
10% discounts to WSO members for ornithological supplies.

Editor: Charles A. Kemper M.D.,*

P.O. Box 699, 733 Maple St., Chippewa Falls, WI 54729 (715—723-3815)

Assistant Editor: Linda L. Safir,

18925 Lothmoor Dr. Lower, Brookfield, WI 53005 (414—782-0805)

Associate Editor: Daryl Tessen,*

2 Pioneer Park Pl., Elgin, IL 60120 (312—695-2464)

Field Note Compilers:

(spring) Bill Volkert,

Route 3, Box 35, Campbellsport, WI 53014 (414—533-8939)

(summer) Tom Soulen,

1725 Eldridge Ave., St. Paul, MN 55113 (612—631-2069)

(autumn) Mark Peterson,

Box 53, Caroline, WI 54928 (715—754-2661)

(winter) Ken Lange,

Devil's Lake State Park, Baraboo, WI 53913

(Home 608—356-3658) (Office 608-356-8301)

The Badger Birder Editor: Mary Donald,*

6918 N. Belmont La., Milwaukee, WI 53217 (414—352-8940)

File Keeper: Ray Anderson,

College of Natural Resources, Univ. of Wisconsin-Stevens Point, WI 54481

Historian: Linda Thomas, Star Rt. Box 102

Sayner, WI 54560 (715—542-3372)

Records Committee Chairman: Fred Leshner*

509 Winona St., LaCrosse, WI 54601 (608—783-1149)

HOTLINE: 414—352-3857

*Member Board of Directors