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Cover: Lesser Golden Plover photographed at Baileys Harbor, WI, October 15, 1986 by Roy Lukes.

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Detecting Northern Saw-Whet Owls *(Aegolius acadicus)*

By Ann B. Swengel

ABSTRACT

Six signs of the presence of the Northern Saw-whet Owl *(Aegolius acadicus)* are discussed and the typical habitat of this elusive owl species is reviewed. Different methods of detecting Saw-whet Owls are explained, with a discussion of the advantages, disadvantages, and limitations of each method.

INTRODUCTION

The Northern Saw-whet Owl is a diminutive species of forest owl that generally eludes detection by standard techniques of birdwatching. Since this species is strictly nocturnal, roosts in dense cover, and is loathe to flush from its day perch, few records of this species are obtained without searches specifically targetting this species. Unfortunately, this paucity of records perpetuates the Saw-whet's reputation for being both rare and mysterious, when in fact there is little basis to support or refute these beliefs.

My husband Scott Swengel and I have been studying the Northern Saw-whet Owl and, to a lesser degree, the Eastern Screech-Owl *(Otus asio)* in four study areas in Sauk County, Wisconsin since January, 1986. The haphazard and infrequent documentation of Saw-whet Owls in Sauk County in no way prepared us for the numerous records we have obtained through our research. Thus, I believe that with greater awareness of the habitat and behavior of the Saw-whet Owl and with efforts designed specifically to detect this species, it is possible for birdwatchers to document the presence or absence of Saw-whet Owls more thoroughly and thereby considerably increase our understanding of the Saw-whet's population size, ecology, and movements.

SIX WARNING SIGNALS OF THE SAW-WHET OWL

The Saw-whet Owl may be very elusive, but it cannot completely erase the evidence of its presence. There are six warning signals which may alert the observer that this species is in the area. They are:

1. repetitious too-too-too call;
2. mobbing by chickadees;
3. streams of whitewash in a tree;
4. small, dense pellets;
5. back half of a dead mouse;
6. mound of junco feathers.

First, the Saw-whet Owl calls in the evening and nighttime hours of late winter and spring. It repeats a single, short, high-pitched note, sometimes for a very long time. This is diagnostic of the species. No other eastern bird is likely to call at this time or sound similar. In fact, we have found only one confounding species -- in small numbers, the Spring Peeper *(Hyla crucifer)*, a frog, may sound similar. In the West, the observer must listen more carefully. The Northern Pygmy-Owl *(Glaucidium gnoma)* has a very similar call, but the note may be lower in pitch and the frequency is slower.

Sometimes chickadees and their associates, such as nuthatches, find the owl first. Should they encounter a Saw-whet Owl as they circulate on their feeding rounds, these small birds may harass the hapless owl by loudly swarming around it for some time. In our experience, the Black-capped Chickadee *(Parus atricapillus)* calls with a monotonic insistent "dee-dee-dee-dee-dee" and the Red-breasted Nuthatch *(Sitta canadensis)* with a loud nasal "annn-annn-annn-annn-annn". The Saw-whet Owl generally rides out this storm motionless. If possible, investigate

all such obvious instances of commotion; an owl, probably a Saw-whet, may be at the center of it.

A third signal is the presence of vertical streams of fecal whitewash in and below a tree. Although this alone is not conclusive evidence of a Saw-whet Owl, this species is a likely culprit if the following characteristics are present. The wash should be all white, with a thick and pasty appearance. Although it may scatter some in its descent, the wash should indicate a plumb line from the point of origin, the roost. Be sure to look carefully for the owl, since it may be very well concealed even with wash pointing right up at it. Finally, the wash should occur in suitable habitat, which is discussed later. Confusing look-alikes include white funguses and pine sap, as well as whitewash from other birds.

Another sign often present near a roost is the pellet. Hawks and owls both produce these masses of regurgitated bones, fur, and other indigestibles of their food. Pellets of the Saw-whet Owl are dense and small; a sample of the ones we collected has averaged 3.05 cm (1.8 - 5.1 cm, N=344 unbroken pellets) x 1.54 cm (0.9 - 2.0 cm, N=386). The fur covering is compacted like felt. Its contents have a set of diagnostic characteristics as well. The skull of the prey item, if present, is arranged lengthwise in the pellet and determines the width of the pellet. Sometimes the lower jaws are still aligned correctly to the skull. Also, the skull is invariably crushed in the back to some degree, and Saw-whet pellets generally have a high density of bones within them. Typical prey items are, of course, small -- generally *Peromyscus* mice, *Microtus* voles, and *Blarina* shrews in our area -- and rarely is a whole set of bones for that prey item present because Saw-whet Owls generally eat their prey in two meals. This signal combined with appropriate fecal whitewash is very good evidence of a Saw-whet Owl.

Pellet finding is also confounded by many look-alikes, such as pine cones, hickory nutshells, other species' pellets, and many unpleasant, unmentionable items. By comparison, Barred Owl *(Strix varia)* pellets are both much longer and wider and, although they hold together well, the fur is much more digested, to the consistency of dust. Barred Owls eat mostly small rodents, like the Saw-whet Owl. Great Horned Owls *(Bubo virginiensis)* also produce large masses of pellet material but in much looser form so that it often splatters widely on the ground. Their pellets contain a wide variety of prey items, including such large animals as rabbits *(Sylvilagus floridanus)* and Ruffed Grouse *(Bonasa umbellus)*. Eastern Screech-Owl pellets are only a little larger, but are less compact and the skulls are intact. A good knowledge of the other raptors in the vicinity also aids in identifying the origin of a pellet.

Saw-whet Owls prefer to eat the head end of the prey first (Collins 1963), generally including the forelegs. For various reasons, they sometimes do not eat the back half and, if found in appropriate habitat, this is a clue, although not conclusive, that indicates a Saw-whet may be present.

The sixth signal is even less diagnostic -- a large mound of feathers from an obviously defunct Dark-eyed Junco *(Junco hyemalis)* on the forest floor. Saw-whet Owls, with their small stomach capacity, strip off many of the feathers before eating a bird, commonly a junco. Although these last two signs do not prove a Saw-whet Owl is present, they certainly indicate this possibility and warrant further investigation.

HABITAT

In our study area, we have found Saw-whet Owls in a variety of habitats. These forest types include:

1. predominately coniferous forests, which in our area occur on slopes and in gorges;
2. mixed coniferous-deciduous forest;
3. predominately deciduous upland forest;
4. brushy thicket;
5. pine plantations, including stands of young Red Pine *(Pinus resinosa)*, old Red Pine, and several species of spruce;
6. pine islands and groves;
7. Jack Pine *(Pinus banksiana)* barrens.

Some of these locations may have contained only wintering or transient Saw-whet Owls, particularly the more southern habitat types. Other studies have found wintering Saw-whet Owls in alder thickets in western Minnesota (McCabe 1973) and in deciduous riparian thickets in Iowa (Scott 1938, Peasley 1944, and Stephens 1944).

Large owls such as Barred and Great Horned Owls appear not to repel Saw-whet Owls strongly despite the fact that larger owls occasionally prey on smaller owls. Through pellet collection, sightings, and vocalizations of the various owls, we have noted a fair amount of overlap in land use between the Saw-whet and larger owls. Since Eastern Screech-Owls prefer southern-type forest edges in our area, they and the Saw-whet Owls are generally segregated from each other because of different habitat choices. We have, however, also noted interspecific call answering to taped calls among all these species, indicating perhaps a degree of competition and antagonism among them. Eastern Screech-Owls and Saw-whet Owls are mutually responsive to each other's taped calls, and Barred and Great Horned Owls have responded to tapes of both Eastern Screech-Owls and Saw-whet Owls. Furthermore, we have noted several instances when Saw-whet Owls have continued to call after a Great Horned Owl vocalized. Similarly we have heard Saw-whets sing after Barred Owls have just called in the vicinity.

Consistent with our experience, Saw-whet Owls have been found in a variety of habitats across the country. Boula (1982) studied them in Oregon in low thickets of sapling Grand Fir *(Abies grandis)* and Western Larch *(Larix occidentalis)* in old-growth Ponderosa Pine *(Pinus ponderosa)* and Grand Fir forests, noting that the Saw-whet Owls preferred old-growth forests with structural diversity to managed stands of uniform-size trees. In Washington State, Grove (1985) studied Saw-whet Owls which preferred Ponderosa Pines for roosting. Like us, he found that the Saw-whet Owl tolerates the proximity of moderate to heavy human activity so long as the owls remain undetected and undisturbed. In the southwest United States, Johnson, Haight, and Simpson (1979) reported that the Saw-whet Owl inhabits Ponderosa Pine and mixed coniferous forests throughout the year, sometimes wintering in Pinyon-Juniper woodlands. Similarly, Miller (1937) reported a Saw-whet Owl in late spring in a dense stand of Douglas Fir *(Pseudotsuga menziesii)* in the Chiricahua Mountains of southeastern Arizona. Hayward and Garton (1984) have studied this species in Douglas Fir and Lodgepole Pine *(Pinus contorta)* forests in the vast wilderness forests of central Idaho. In the eastern United States, Saw-whet Owls have wintered in the Tamarack *(Larix laricina)* bogs and young Red Pine plantings in southern Michigan (Mumford and Zusi 1958), and in young pine plantations in southwest Ohio (Randle and Austing 1952). This species has also been heard calling from April to June in the coniferous forests atop North Carolina's Appalachian Mountains (Stupka 1946 and Simpson 1972).

In summary, Saw-whet Owls are a widespread and widely adapted species of forest owl. They show a marked preference for conifers, if only because these trees afford better cover, at least in winter. Since they are cavity-nesters, preferring a flicker-sized hole, the breeding range must also include adequate nesting sites.

DETECTION METHODS

In the course of other activities, a birdwatcher may certainly chance upon a Saw-whet Owl, but usually this owl is detected through means designed specifically for this species.

The first method is searching during the day for the Saw-whet Owls, their roosts and pellets in suitable habitat. Theoretically, if the owl spends very much time on a perch, there will be fecal whitewash splashed on the area underneath, and 1-2 times per day, the owl regurgitates a pellet. In fact, we have seen owls with no apparent wash beneath them and we have found isolated pellets with no wash -- or owl! -- apparent in the immediate vicinity. These are indications that this method is not as easy as it sounds. If the trees are relatively short and dense, the Saw-whet Owls will likely be closer to the ground, and therefore easier for a person to find. However, the forest itself will likely be more difficult to traverse. Conversely, a more mature forest or plantation is easier to walk through, but it will be more difficult to find the owls, as they are higher in the trees where the best cover is. Furthermore, in such older forests, the fecal wash and pellets are more difficult to see, since fewer of both filter down below eye level and they also scatter more widely.

Another method of detecting Saw-whet Owls is to listen for their vocalizations (Vanderschaegen 1981 and personal experience). First, it is useful to determine when Saw-whet Owls are likely to call in that area, generally when late winter and spring occur locally and, of course, mostly between sunset and sunrise. We have only censused during the evening hours. Listen quietly and carefully -- the owls' calls can be muffled by the forest and blend in with a chorus of Spring Peeper frogs. Again, theoretically, nestlings and fledglings should make food-begging calls that keen observers can discern. We have not been able to hear this and I suspect that the increased human and natural noises on late spring and summer evenings effectively drown out the juvenile owls except at close range.

Auditory censusing either with tape playback (personal esperience) or imitated call (Simpson 1972) can also be effective during the species' vocal season. In theory, territorial owls will defend their ground by responding in kind to the "foreign" calls from the tape or imitation. Since the Saw-whet Owl may behave similarly to other species that have been censused in this manner, some precautions are necessary. Calling too often to an individual may cause accommodation, i.e. the owl will stop responding to the call. Overcalling may also disrupt breeding or even drive the owl off the territory. The owl may approach the tape if played long enough, but we have not attempted this since it could be disruptive for the owls. Also, we want to know where the owl usually roosts, not where we can lure it to. Responsiveness may vary not only season to season, but apparently year to year as well. In 1986 during the peak calling period we experienced a 90-100% response rate; the following year we have had very little response from the owls known to be present from sightings and pellets.

Under requirement of special permit, scientists also use a fourth method, live trapping, to detect Saw-whet Owls. They then either band the owl and/or affix a battery-powered radio to the owl in order to study the owl's movements. We have not used this method and I will not consider it further in this discussion since it is not an option for most birdwatchers.

ADVANTAGES, DISADVANTAGES, AND LIMITATIONS OF THE DETECTION METHODS

Circumstances and objectives affect the choice of detection method. For example, the correct time of year is critical for accomplishing censusing based on

vocalizations effectively. If it is the calling season, these methods can be much more efficient for locating the owls than daytime searching; the reverse, however, is true outside of the calling season.

Although daytime searching is the best method to use in the summer, it is especially time-intensive and low-yield at that time of year. The warm rains melt away the fecal whitewash quickly and help decompose the pellets, a process also accelerated by beetles, worms, and other hungry creatures. In fact, Wilson (1938) found that pellets survived 3-5 months in the winter, no doubt preserved in a frozen state, but decomposed in 4-6 weeks in the spring. It is quite probable that they are erased even more quickly in the summer, when there is also more undergrowth to obscure them.

The least intrusive method -- least disturbing for the owl -- must be listening for voluntary vocalizations, unless of course the observer attempts to approach the owl closely. Disturbance from auditory censusing with tape or call imitation can be minimized by limiting use of the stimulus call only to elicit response and not to lure the owl nearer, and by not returning repeatedly to the same area for censusing. Disturbance during daytime searches may be unavoidable since an owl may be visible only at close range. Once seen, of course, the observer must decide whether to disturb further by approaching closer or to depart. Remember that the effect of the disturbance may not be immediately evident -- we have noted a cumulative effect of increasing wariness from repeated sightings, even though the owl did not seem upset the first few times. Disturbance of nests should, of course, be avoided as much as possible.

All of the methods suffer to some degree from inconclusiveness of negative results. If no vocalizations are heard, it is not clear whether the owl elected not to call or was not present. A daytime search that fails to yield a sighting, a roost, or a pellet, especially in the warmer months, also does not prove the absence of the species since this is a difficult method that is often only marginally productive.

The objectives of the observer also affect the choice of method since the different methods yield different results. A nesting study requires diurnal observations, although vocal data can also be helpful. Diet and roost data are also generally studied from pellet analysis and roost measurements, a diurnal pursuit. Censusing may be most efficiently determined from vocal records, but only if the owls are calling; otherwise, censusing necessitates daytime searches also.

IMPORTANCE OF DOCUMENTING SAW-WHET OWLS

In addition to the pleasure of seeing Saw-whet Owls, birdwatchers' records provide sorely needed additional data on this species. The range of this owl has not been completely determined, nor its status as migrant or resident in many locations. Furthermore, the population density in different habitats and different times of the year is virtually unknown. Thus, it is of great benefit for birdwatchers to remain alert for the signs that this species is present in an area. The Saw-whet Owl will always be an elusive species, but it can be much better understood.

LITERATURE CITED

Boula, Kathryn M. 1982. Food habits and roost sites of Northern Saw-whet Owls in northeastern Oregon. **Murrelet** 63:92-93.

Collins, Charles T. 1963. Notes on the feeding behavior, metabolism, and weight of the Saw-whet Owl. **Condor** 65:528-530.

Grove, Robert A. 1985. Northern Saw-whet Owl winter food and roosting habits in north-central Washington. **Murrelet** 66:21-24.

Hayward, Gregory D. and Edward O. Garton. 1984. Roost habitat selection by three small forest owls. **Wilson Bulletin** 96:690-692.

Johnson, R. Roy, Lois T. Haight, and James M. Simpson. 1979. Owl populations and species status in the southwestern United States. in P.P. Schaeffer and S.M. Ehlers, eds. **Proceedings of the Symposium on owls of the west: Their Ecology and Conservation.** National Audubon Society Western Education Center, Tiburon, California.

McCabe, Tim L. 1973. Overwintering Saw-whet Owls in Clay County. **Loon** 45:114-117.

Miller, Alden H. 1937. Notes on the Saw-whet Owl. **Condor** 39:130-131.

Mumford, Russell E. and Richard L. Zusi. 1958. Notes on movements, territory, and habitat of wintering Saw-whet Owls. **Wilson Bulletin** 70:188-191.

Peasley, Mrs. Harold R. 1944. The Saw-whet Owl in Polk County, Iowa. **Iowa Bird Life** 14:42-45.

Randle, Worth and Ronald Austing. 1952. Ecological notes on Long-eared and Saw-whet Owls in southwestern Ohio. **Ecology** 33:422-426.

Scott, Thomas G. 1938. Some Saw-whet Owls in central Iowa. **Wilson Bulletin** 50:239-242.

Simpson, Marcus B. Jr. 1972. The Saw-whet Owl population of North Carolina's southern Great Balsam Mountains. **Chat** 36:39-47.

Stephens, T.C. 1944. The Saw-whet Owl in Woodbury County, Iowa. **Iowa Bird Life.** 14:45-47.

Stupka, Arthur. 1946. Occurrence of the Saw-whet Owl in the Great Smoky Mountains during the breeding season. **Migrant** 17:60-62.

Vanderschaegen, Phil. 1981. Where are the Saw-whet Owls? **Passenger Pigeon** 43:48-49.

Wilson, Kenneth A. 1938. Owl studies at Ann Arbor, Michigan. **Auk** 55:187-197.

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Saw-whet Owl photo by C.A. Kemper.

The Habits of the Northern Saw-whet Owl *(Aegolius acadicus)*

by Ann B. Swengel

ABSTRACT

The roosting habits, typical behavior, patterns of movement, and vocalizations of the Northern Saw-whet Owl *(Aegolius acadicus)* are reviewed and discussed.

ROOSTS

Like other owls, the Saw-whet Owl uses night roosts for perches from which to hunt and patrol its home range and day roosts for protective cover while it sleeps.

Hunting perches tend, it is believed, to be low to the ground, an efficient location from which to detect rodents on the forest floor. We have noted several roosts within one meter of the ground which must be such perches. One venerable Eastern Red Cedar *(Juniperus virginiana)* surrounded by dry prairie in a Jack Pine *(Pinus banksiana)* barren must be a night roosting tree. Although we regularly collect pellets there, we have never seen the owl there. Over the course of the winter, large build-ups of fecal whitewash have accumulated at several perches in this tree where there are both good cover and easy access to the grassland.

The most prominent feature of the day roosts is the excellent cover that they afford the owl. Often the sleeping owl is visible from only a few vantages. Following the vertical line of whitewash upward is not always easy or sufficient to sight the owl. I have more than once determined that a roost was currently unoccupied only to have my husband Scott announce later that indeed an owl was present.

We have found that the different sizes and growth habits of the pine trees affect the locations of the day roosts (figure 1). Not surprisingly, tree height and roost height correlate strongly; the taller the tree, the higher the roost. Of course, a high roost can't be in a short tree, and roosts probably tend to be higher in taller trees for several reasons. First of all, by random selection some roosts would be high, although I doubt that Saw-whet Owls ever select roosts randomly! Secondly, greater height increases protection from terrestrial predators while not compromising cover from avian predators. Thirdly, tall trees in forests tend to be sparsely foliated and thinly branched near the ground, so that the best cover is higher up.

Table 1 shows the characteristics of the roost trees and roost sites we have located in our study area. In the taller, opener species, Red Pine *(Pinus resinosa)* and Jack Pine, the roosts are located farther from the trunk since this is where the needles are. Often the roosts are in dense junctions of branches from several trees. The night roosts in Eastern Red Cedars are near the outer edge of the tree to allow easy flight out for hunting, but tend to be just below the widest part of the crown, so that they receive umbrella-like cover. In dense, narrow-crowned White Spruces *(Picea glauca)*, the most cover is found lower to the ground and nearer to the trunk, inside the canopy of dense branchlets and needles.

Over the decades, various authors (e.g. Bent 1938 and Austing 1958) have stated that Saw-whet Owls prefer roosts low to the ground. Although this may in fact be the case, it could easily result from the fact that Saw-whet Owls are eminently easier to find the lower they are. With the aid of mobbing chickadees or good luck, we have seen Saw-whet Owls well up (over 6 m) in Red Pines with no evidence of the roost -- wash or pellets -- visible at or below eye level. In fact, the 42 roosts we have measured in this tree species have averaged 6.33 m high.

Radiotelemetry work by Hayward and Garton (1984) confirms that Saw-whet Owls habitually select roosts higher than the norm often reported. The mean roost height

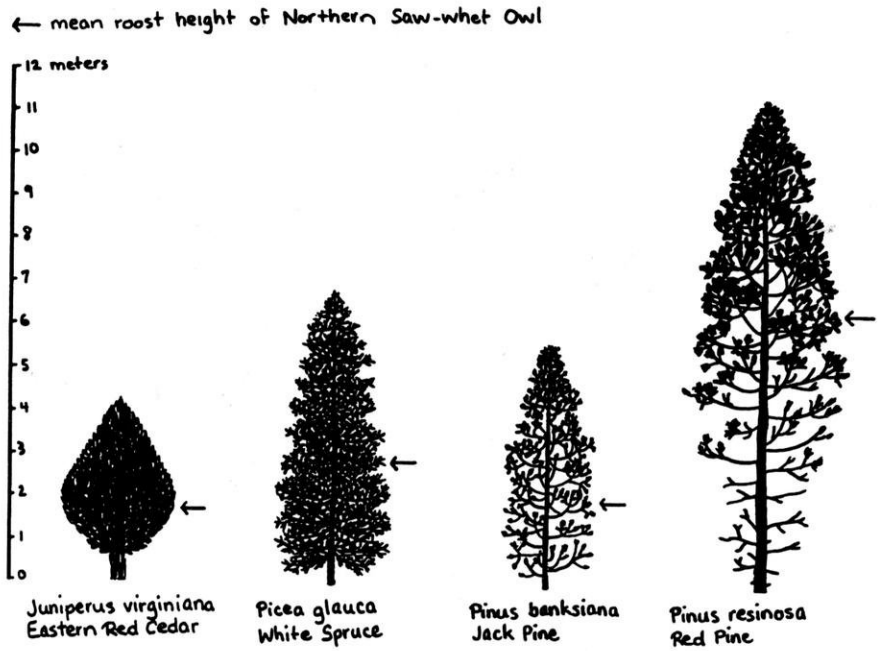

Figure 1. Typical roost trees and average roost heights of the Northern Saw-whet Owl in Sauk County, Wisconsin.

in this study was 4.2 m (N=15), with a maximum roost height of 7.3 m. It took the researchers up to 45 minutes to find the owl after they had identified the roost tree, indicating how difficult it can be to locate Saw-whet Owls on high roosts. Thus, it is quite likely that Saw-whets roost high more often than is detected.

BEHAVIOR

The Saw-whet Owl is strictly nocturnal -- i.e. it is active, in general, only at night. It is at night that the activities of hunting, courtship, feeding young, and patrolling the home range are performed. It is not surprising, therefore, that Saw-whet Owls possess extremely keen vision and hearing. Although most vocalizations also occur at this time, we have heard one Saw-whet call during the day, just before noon on a sunny, windy day after we had searched for pellets in the vicinity.

In contrast, the Saw-whet Owl is very quiet and still during the day. At a day roost affording considerable cover, this species usually sits tight and quiet if at all possible. It strongly avoids flushing from the perch in order to avoid the attention of predators, something many observers have experienced since they can often approach the owl quite closely (e.g. Bent 1938, Austing 1958, and Mumford and Zusi 1958). This is a survival strategy -- not tameness or curiosity on the part of the owl -- since there is greater risk of detection and predation if the owl moves than if it remains hidden. This explains the immobile forbearance of the Saw-whet Owl when small birds mob it.

Certainly in our experience the Saw-whet Owl is not tame, and it may modify this strategy of motionlessness when it is found repeatedly on day roosts. In one particular area where we often searched for pellets, the owl gradually became more

agitated each time we discovered it, although we never handled it and always departed the area rapidly. The owl has appeared to adjust its roost site selection in response to this disturbance. First it sought roosts with even more cover; then it selected higher roosts in taller trees. Now it remains calmer when we sight it because it is well above our reach.

The Saw-whet Owl may have a prey item, or part of it, in its grip while it is on the day roost. Presumably, this is either the back half of a mouse the Saw-whet has already partially eaten or simply an additional prey item caught the night before. Because of the dense cover surrounding the owl on its day roost, it may be very difficult to see the prey, however.

Not surprisingly, the Saw-whet Owl is a creature of habit. Not only do the owls select a home range in which to live, but they choose certain areas within this range in which to concentrate their activities. We have been able to detect some of these favorite places because pellets and fecal whitewash tend to concentrate there. Because of this phenomenon, certain locations are part of our regular round of pellet searches since they so dependably produce pellets. However, although Saw-whet Owls appear to prefer certain locations, they do move about widely throughout their home range. This adds to the difficulty of finding the owl!

PATTERNS OF MOVEMENTS

The fall and, to a lesser extent, the spring migrations of the Saw-whet Owl have been documented by various researchers and banding stations (figure 2). A marked peak of movement has been noted at four fall banding stations: Hawk Ridge, Minnesota (Evans 1975); Cedar Grove, Wisconsin (Mueller and Berger 1967); Prince Edward Point, Ontario (Weir 1983); and Cape May, New Jersey (Clark 1974 and 1976). Scattered stragglers have also been found at these locations throughout the banding season. The total number of owls caught varies from year to year, but the period of movement and time of peak numbers remain remarkably consistent over the years. Thus, the Saw-whet Owl exhibits a pattern of movement in the fall that follows the standard expectations for migration behavior. In both the Great Lakes and Northeastern regions, the chronology of the more northern and southern stations fit together logically.

Theoretically, the Saw-whet Owl should show a corresponding northward migration in the spring, but for this season less information is available. At Toronto, Ontario, Catling (1971) has reported a spring movement of this species that also follows the standard pattern of migration behavior. The results from the Whitefish Point Bird Observatory in Michigan do not fit this pattern as well (Thomas W. Carpenter, pers. comm.). Saw-whet Owls have been captured there from early April to early June, but there isn't a marked period of concentrated movement and the days of higher numbers of captured owls vary from year to year. Carpenter does, however, postulate that the peak period of movement in normal years is probably in mid- to late April. This time sequence corresponds logically with Catling's results.

The range maps of four field guides of wide use and geographic scope (Farrand, Jr. 1983; National Geographic Society 1983; Peterson 1980; and Robbins, Bruun, and Zim 1983) present a consistent picture as well. Each indicates a northern zone, including the entire states of Wisconsin, Michigan, New York, and New England, in which the Saw-whet Owl is resident, and a southern zone, generally excluding the Deep South, in which the Saw-whet Owl winters.

This suggests the distinct possibility that the Saw-whet Owl is only partially migratory, for which there are several possible scenarios. Certain individuals may withdraw south for the winter, resulting in a sparser density of this species throughout the zone of residence. Or, the Saw-whet Owls in the far north may

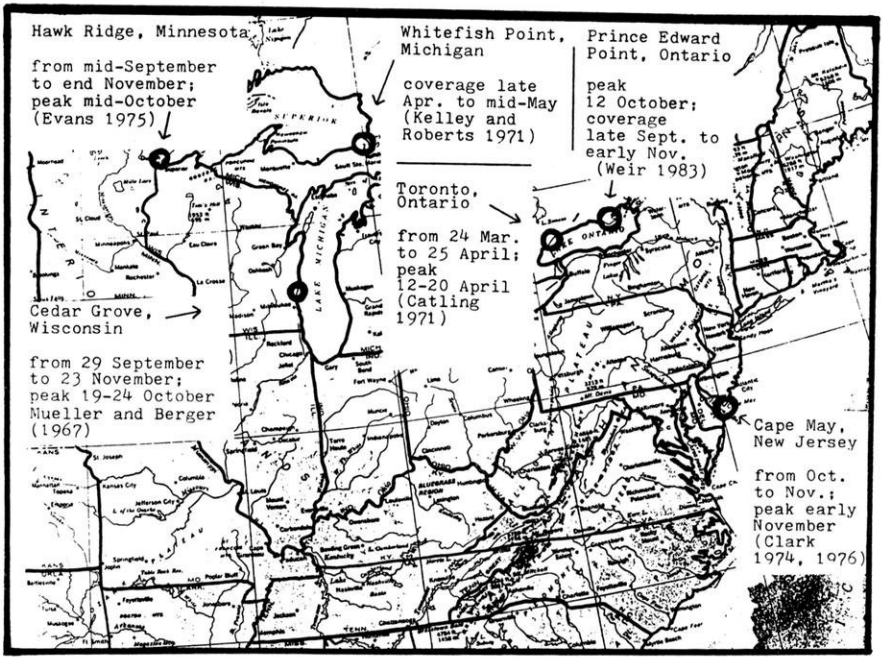

Figure 2. Map of northeastern United States, showing location and timing of the Northern Saw-whet Owl migration.

migrate over and past the resident owls. It is possible that a northernmost summer-only zone also exists but has not been documented yet because of sparse human population in that area.

There are more differences in the western range maps among the three field guides that cover this area. This may be a product of history -- ornithological research is younger and less extensive in that part of the country. The books do all include the entire states of Washington and Idaho in the zone of residence and this zone also runs further north up the British Columbian coast and further south down the Rocky Mountains.

In Wisconsin, records of nests, eggs, and juveniles of the Saw-whet Owl exist in about equal proportions from throughout the state over the last forty years (Follen 1981 and 1982). I define the southern part of the state as those places south of or in the counties of Buffalo, Trempeleau, Jackson, Wood, Portage, Waupaca, Outagamie, Brown, and Kewaunee.

A review of the last several years' issues of the **Passenger Pigeon** also reveal that winter (December-February) and summer (June-July) records exist from throughout the state. However, most of the winter records are from the south and most of the far fewer summer records are from the north. This may correspond to actual population numbers, but may also result from several other factors. The human population of the state is greater in the south, and these people -- even birdwatchers! -- are probably less inclined to venture into the northern parts of the state as much in the winter as in the summer. Thus, there are fewer observers in the north, especially in the winter. The nature of this species' calling behavior probably also

affects these figures. In the south, Saw-whet Owls can begin calling in February, and some of the winter records are of calling owls. In the north, the calling season may extend into June, resulting in vocal records during the summer.

These records allocate similarly relative to the tension zone between northern and southern forest habitats (Curtis 1959). Northern Wisconsin in this case is north of the counties of Polk, Dunn, Eau Claire, Jackson, Wood, Portage, and Waupaca; north and east of Outagamie County; and east of Calumet, Fond du Lac, and Washington Counties. Southern Wisconsin lies south of Polk, Barron, Eau Claire, Clark, Wood, Portage, and Waupaca Counties; and west of Winnebago, Fond du Lac, Washington, and Milwaukee Counties. Records in the counties of Polk, Eau Claire, Wood, Portage, Waupaca, Outagamie, Winnebago, Calumet, Fond du Lac, Washington, and Milwaukee are attributed to the tension zone.

Half of the breeding records occur south of the tension zone, with 2/3 of the remaining records in the north and 1/3 in the tension zone. An equal number of winter records occurs in the north and south, with several in the tension zone. All of the fewer summer records happened to fall to the north in this small sample, but of course some of the above-mentioned breeding records are from the south as well as several unpublished summer records that we know of (K. Lange, pers. comm.)

It is also possible that the trees themselves influence these records. In the north, among the many native conifers are three widespread species with shorter and narrower crowns, Black Spruce *(Picea mariana)*, White Spruce *(Picea glauca)*, and Balsam Fir *(Abies balsamea)*. In these species, Saw-whet Owls would roost closer to the ground and would therefore be relatively easier to find in the absence of vocalizations. In the south, however, the only native pine species, Red Pine, White Pine *(Pinus strobus)*, and Jack Pine, which are also widely grown in plantations, can become quite tall. Saw-whet Owls select higher roosts in them, where the owls are very difficult, if not impossible, to find. In our study area, most of our Saw-whet Owls have been found inhabiting areas where tall conifers are growing.

In our experience, if the Saw-whet Owls are calling, they are much more easily detected vocally than visually. Hence, most of our records are from the calling season, late winter through spring. However, we did sight one Saw-whet Owl in July, 1986 and collected pellets from that area throughout the summer. In many of the locations, Saw-whets were calling for several weeks or more, which suggests they were not transient. They may have only been wintering, but we cannot know for certain about all of them. Since about half of these areas are inaccessible for one reason or another, it is impossible to determine whether the owls are present outside of the calling season. Also, since Saw-whet Owls on high roosts are so difficult to find, it is not realistic to expect to see them very often, although of course we try.

VOCALIZATIONS

The territorial song is by far the most commonly heard vocalization of the Saw-whet Owl. It consists of a single, short, high-pitched note which is repeated at consistent intervals, often for a great period of time. Volume can vary, but we have found that after careful listening, it is generally apparent that the owl has not moved appreciably. It had probably been projecting its call in several directions, and this probably accounts for the ventrilocal effect reported by some authors (e.g. Bent 1938 and Eckert and Karalus 1974). If the vocalization lasts sufficiently long for us to pinpoint its direction, we do not find this "ventriloquism" confounding. Sometimes the owl accelerates the rate of the notes in this song and at other times slows the pace of delivery. This vocalization is well known and is represented

on such bird song recordings as "Voices of New World Nightbirds" (ARA Records, Inc.; available from the Laboratory of Ornithology, Cornell University, Ithaca, New York) and "A Field Guide to Bird Songs of Eastern and Central North America" (Cornell Laboratory of Ornithology, Ithaca, New York).

We have also identified four additional vocalizations of the Saw-whet Owl: a harsh, short shriek (probably an alarm call); an ascending, single-noted wail ("saw-whet call"); a single, long whistle similar in pitch and tone to the song note; and a lower-pitched, isolated, descending call. The "saw-whet" call as well as another vocalization we have never heard are also on "A Field Guide to Bird Songs of Western North America" (Cornell Laboratory of Ornithology, Ithaca, New York, first edition).

	Tree Height (m)		Roost Height (m)		Distance from trunk (cm)	
Tree Species	N	mean	N	mean	N	mean
Eastern Red Cedar (*Juniperus virginiana*)	8	4.31	12	1.58	16	110.0
Jack Pine (*Pinus banksiana*)	29	5.81	41	1.99	44	58.8
White Spruce (*Picea glauca*)	90	6.92	79	2.86	76	26.4
Norway Spruce (*Picea abies*)	10	12.2	8	3.94	7	36.6
Red Pine (*Pinus resinosa*)	73	11.4	42	6.33	52	44.3

Table 1: Typical roost trees and roost sites of the Northern Saw-whet Owl in Sauk County, Wisconsin.

LITERATURE CITED

Austing, G. Ronald. 1958. The unsuspicious Saw-whet Owl. **Audubon** 60(6): 272-275.

Bent, Arthur C. 1938. **Life Histories of North American Birds of Prey,** Vol. 2, Smithsonian Institution Bulletin 170, U.S. Government Printing Office, Washington, D.C.

Catling, Paul M. 1971. Spring migration of Saw-whet Owls at Toronto, Ontario, **Bird-Banding** 42:110-114.

Clark, William S. 1974. Cape May Point Raptor Banding Station - 1973 results. **Estern Bird Banding Association News** 37:51-64.

Clark, William S. 1976. Cape May Point Raptor Banding Station - 1974 results. **North American Bird Bander** 1:5-13.

Curtis, John T. 1959. The Vegetation of Wisconsin. The University of Wisconsin Press, Madison.

Eckert, Allan W. and Karl E. Karalus. 1974. **The Owls of North America North of Mexico.** Doubleday and Company, Inc., Garden City, New Jersey.

Evans, David L. 1975. Fall owl migration at Duluth, Minnesota. **Loon** 47:56-58.

Farrand, John Jr. 1983. **The Audubon Society Master Guide to Birding,** Volume 2. Alfred A. Knopf, Inc., New York, New York.

Follen, Don G., Sr. 1981. Wisconsin breeding and breeding period records of Saw-whet Owls. **Passenger Pigeon** 43:113-116.

Follen, Don G. Sr. 1982. Additional breeding and breeding period records of Saw-whet Owls in Wisconsin. **Passenger Pigeon** 44:71.

Hayward, Gregory D. and Edward O. Garton. 1984. Roost habitat selection by three small forest owls. **Wilson Bulletin** 96:690-692.

Mueller, Helmut C. and Daniel D. Berger. 1967. Observations on migrating Saw-whet Owls. **Bird-Banding** 38:120-125.

Mumford, Russell E. and Richard L. Zusi. 1958. Notes on movements, territory, and habitat of wintering Saw-whet Owls. **Wilson Bulletin** 70:188-191.

National Geographic Society. 1983. **Field Guide to the Birds of North America.** National Geographic Society, Washington, D.C.

Peterson, Roger Tory. 1980. **A Field Guide to the Birds of Eastern and Central North America.** Houghton Mifflin Company, Boston.

Robbins, Chandler S., Bertel Bruun, and Herbert S. Zim. 1983. **Birds of North America: A guide to field identification.** Golden Press, New York.

Weir, Ron. 1983. Northern Saw-whet Owl studies. **Ontario Bird Banding** 16 (3):8-9.

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A Case of Ascariasis in a Red-tailed Hawk

By Carroll Rudy

For many years, I have been interested in finding out why wild birds die of natural causes, and I have been doing post mortem examinations of any dead birds that I find. The catch is that very few birds are ever found that die of anything other than accidents or gunshot since sick birds are quicky killed and eaten by predators, or else they die where people do not find them.

On June 13, 1987, Sandy Wickman, assistant naturalist at Ledge View Nature Center, near Chilton in Calumet County, Wisconsin, called me saying that she had a Red-tailed Hawk that had died of natural causes, and she asked me if I would be interested in doing a post mortem. I certainly was, since it would be the first wild hawk I'd ever had a chance to study. Sandy said that the bird had been captured alive in New Holstein earlier in the day, and that she had been summoned by the finders who demanded that she take it to the rehabilitation center in Milwaukee, but she immediately realized that the bird was so ill it could not recover and that it was already nearly dead. She was right. The bird which had been found near a pool of water beside a road in the baking sun of a 90 degree day, was suffering from severe green diarrhea and was regurgitating green liquid as well. It was emaciated, and so weak it could not stand, but fell forward with neck and feet extended. In addition to its illness, it was suffering from severe stress, not only from the heat, but from its capture and handling by humans, and it quickly expired.

Examining the body, I found it to be that of a perfectly plumaged male Red-tailed Hawk at two years of age. The only visible sign of illness was the soiled undertail coverts that resulted from the diarrhea. There were no fault bars on the feathers so apparently the bird had been in good health until its last molt nearly a year ago. When I picked up the body to examine it further, I found it to be extremely light and emaciated.

I experienced some difficulty making an incision because it was so dehydrated that the skin, muscles and bones were all stuck together as if the body had been placed in a dehydrator or had been freeze dried. I was amazed that any creature could become that dehydrated before dying for lack of body fluids. We could not even remove the skin for taxidery purposes because it was dried to and inseparable from the underlying tissue. No blood flowed from the tissues and the arteries were white and empty of blood. Obviously there was not enough blood remaining in the bird to maintain circulation.

Most of the bird's internal organs were of normal consistency and coloration except that they were all somewhat shrunken from the severe dehydration, especially the intestines, which contained no food or water. These abnormalities were noted: The heart ventricles contained no blood, and the aorta and pulmonary arteries were perfectly white and empty. The auricles and veins contained clotted blood, but no fluid ran out even though the bird had been dead less than two hours. In contrast to the other shrunken organs, the gall bladder was very turgid as if the bile duct had been blocked and the contents were viscid, stringy, almost black and putrid. The spleen was shrunken, greyish and bloodless.

I opened the digestive organs from end to end, and found that the esophagus contained regurgitated bile. The stomach contained numerous large ascaris worms -- still alive and many smaller ones in all states of development. Likewise the entire length of the intestines contained ascaris parasites of all sizes, and the cloaca contained the largest adult worms of all. The entire intestinal wall was pinpointed with tiny lesions and bloody lacerations, while the large intestine and cloaca were

congested and inflamed with tortuous blood vessels on the outside surface. The cloaca was filled with watery white urine.

I could find no information on ascariasis in raptors, but am familiar with the disease in pigeons and chickens, and the hawk's symptoms were the familiar classic ones -- green diarrhea, regurgitation, anemia, weakness, emaciation, prostration, dehydration and death. I could find no information on transmission in raptors, but in Gallinaceus and Columbidiform birds, the route of infection is a straightforward fecal-oral one.

The finder's expectation that the bird could have been saved by a rehabilitator were unjustified since the state of dehydration had reached the state of vascular collapse because the intestinal mucosa were damaged to the point where fluid was no longer being absorbed.

SUMMARY

Ascaris worms are large roundworm parasites commonly found in many species of birds and mammals. Each species of ascaris can infect only specific species of animals, so those found in a raptor would present no danger to humans or livestock. Apparently the species found in the Red-tail may have a different life cycle than that of the pigeon, because the hawk's liver and lungs appeared undamaged, whereas the pigeons I have observed that died with ascariasis always had white-mottling of the liver tissue damaged by the worms and had so much lung damage that they ultimately expired from pneumonia. These parasites can move around, and can crawl into the bile duct and plug it up, as appeared to have happened to this bird. Ascaris worms damage the intestinal mucosa, causing bleeding and anemia in the host, and ultimately destroy the intestinal funciton of absorbing food and water so that these are expelled, causing severe diarrhea. In this case, the resulting dehydration was accelerated by extremely hot weather and the bird was probably found beside a pool due to its great thirst. Normally hawks seldom drink.

In the earlier stages, the disease can be easily diagnosed by its symptoms and by the presence of ascaris eggs in the feces; then it could possibly be cured with vermicide medication. Wild birds however, cannot be caught until they have reached an advanced state of illness.

LITERATURE CITED

Anderson, Roy C., Karstad, Lars, and Trainer, Daniel O., **Infection and Parasitic Diseases of Wild Birds,** edited by John W. Davis et.al., Iowa State Unifersity Press, Ames, Iowa, 1971.

Chandler, Asa C., **Introduction to Parasitology,** John Wiley & Sons Inc. New York, 1955.

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Sibling Rivalary in Common Loon Chicks

By Paul I.V. Strong and Lorraine Hunsicker

The Common Loon *(Gavia immer)* typically lays two eggs (McIntyre 1975), but most pairs fail to raise two chicks to fledging (Titus and VanDruff 1981). Chick loss is commonly attributed to abandonment by the adults after human disturbance, severe storms, and predation by raptorial birds, snapping turtles *(Chelydra serpentina)*, or large predatory fish (McIntyre 1975, Yonge 1981). Until recently, sibling rivalry has not been recognized as a potential source of mortality for loon chicks.

Loons hatch their eggs asynchronously, and chicks establish a dominance hierarchy through physical aggression while they are very young (Davis 1972). Chick loss does not typically result from physical injuries. Rather, death of subordinate chicks is thought to be related to nutritional stress. Dulin (pers. comm.) reported that subordinate chicks in Common Loon broods in Michigan typically received fewer and lower quality food items from the parents than the dominant chicks. Davis (1972) reported similar observations for Arctic *(G. arctica)* and Red-throated Loons *(G. stellata)* in Canada. We observed an incident in which one Common Loon chick seriously injured its sibling apparently resulting in death of the chick.

We had been observing a pair of loons on Virgin Lake, Woodboro Township, in Oneida County, Wisconsin during the summer of 1986. The nesting pair hatched two eggs July 12-13, and both chicks were seen with the adults at 5 days of age. After an absence of six days, we returned to the lake on July 24 and noticed that only one of the chicks was still with the adults. The other was on the opposite side of the lake approximately 1600 m away.

The lone chick vocalized frequently, giving the begging call (McIntyre 1975). Twice on the 24th we observed one of the adults swim across the lake to the lone chick. The adult dove and fed the chick for a few minutes each time.

On July 25th, the chick being attended by the adults swam across the lake followed by one adult. It aggressively attacked the lone chick with its beak and wings driving it into an inlet. Several hours later this incident was repeated, and the lone chick received visible injuries around the left eye and top of the head. The injured chick came out of the inlet once more and vocalized and was chased by the other chick. This time the lone chick escaped into the inlet before it was caught. During these confrontations the adult watched calmly from nearby.

The lone chick vocalized from the inlet for several hours with the vocalizations becoming weaker until they ceased at 1700 hours. At approximately 1900 hours, the dominant chick returned with the adult to the nursery area across the lake. We searched the inlet area for the other chick, but were unable to find it. The subordinate chick was not seen on the lake after that day.

Although the dominant chick did not kill its sibling, we believe that the physical aggression led to the subordinate chick's death. Sibling rivalry and siblicide occur in a number of avian species, particularly when food is lilmited (Lack 1954, Mock 1984). We did not have any data on food availability in Virgin Lake.

Siblicide is probably uncommon in loon broods, but sibling rivalry should not be overlooked as a potential contributor to the death of loon chicks. Changes in food availability for loon chicks caused by lake acidification and manipulation of fish stocks by humans may increase the importance of sibling rivalry in Common Loons.

LITERATURE CITED

Davis, R.A. 1972. A comparative study of the use of habitat by Arctic Loons and Red-throated Loons, Ph.D. Diss. Univ. Western Ontario. 288 pp.

Lack, D. 1954. The natural regulation of animal numbers. Oxford Univ. Press. 343 pp.

McIntyre, J.W. 1975. Biology and behavior of the Common Loon *(Gavia immer)* with reference to its adaptability in a man-altered environment. Ph.D. Diss, Univ. Minnesota. 230 pp.

Mock, D.W. 1984. Infanticide, siblicide, and avian nesting mortality. Pp. 3-30 in Infanticide: comparative and evoltionary perspectives. (G. Hausfater and S.B. Hardy, Eds.). New York, Aldine.

Titus, J.R., and L.W. Van Druff. 1981. Response of the Common Loon to recreational pressure in the Boundary Waters Canoe Area, northeastern Minnesota. Wildl. Monogr. 79.

Yonge, K.S. 1981. The breeding cycle and annual production of the Common Loon *(Gavia immer)* in the boreal forest region. M.S. Thesis, Univ. Manitoba. 141 pp.

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Bald Eagle preys on American Crow

By Charles A. Long, Claudine Long and John E. Long

American (or Common) Crows *(Corvus brachyrhynchos)* and Bald Eagles *(Haliaeetus leucocephalus)* commonly are found occupying the same habitats, but we know of no evidence that Bald Eagles prey on the crow. Bent (1937) mentions crow remains, which might have been carrion, found at eagle nests, but he does not list crows as prey (Bent, 1946). Crow and raven *(Corvus, Corax)* remains occasionally found at Bald Eagle nests (Murie, 1940; Todd et al. 1982 [11 crows, 1.3%]; Kozie, 1986) seem numerous enough to indicate that eagles catch and eat them.

On 17 October 1986, 7:30 a.m., on a cool, cloudy day on McDill Pond, a 2-mile long lake in Stevens Point, Wisconsin, we observed an adult Bald Eagle swiftly fly in toward shoreline birch trees and swerve left striking a flying crow. The crow fell into the lake. The eagle circled about close to the water making 2 attempts while flying to snatch the struggling crow from the water, and on the third attempt pulled it out onto a partially submerged stump (about .5 m above the water). Holding the crow in its talons the eagle tore most of the feathers off and leisurely ate its meal leaving nothing but countless feathers floating on the water. Two other crows silently flew over the scene. It was an awesome sight for us unseen by the eagle consuming its prey in clear view, only 40-50 m. away.

We thank Ms. Karin Kozie for her advice concerning this observation.

LITERATURE CITED

Bent, A.C. 1937. Life histories of North American Birds of Prey. Part 1, U.S. Nat. Mus. Bull. 167, republished by Dover Publ., 1961.

Bent, A.C. 1946. Life histories of North American Jays, Crows, and Titmice. U.S. Nat. Mus. Bull. 191, republished by Dover Publ., 1964.

Kozie, K.D. 1986. Breeding and feeding ecology of Bald Eagles in the Apostle Island National Lakeshore. M.S. Thesis, Univ. Wisconsin-Stevens Point, 61 p.

Murie, O.J. 1940. Food habits of the Northern Bald Eagles in the Aleution Islands, Alaska. Condor. 42:198-202.

Todd, C.S. et al. 1982. Food habits of Bald Eagles in Maine. J. Wildlife Management, 46:636-645.

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Black-Shouldered Kite
1987 WSO Convention Highlight

By Don G. Follen, Sr.

On May 15, 1987 Dennis Seevers informed me that he had seen what he thought was a kite of some kind in Section 34, Range 5E of Sherry Township.

On Saturday, May 16, with field guides in hand (Peterson, Robbins et. al.) Steve Rennhack and I talked with Dennis and rapidly picked out the White-tailed Kite in the field guide (now Black-shouldered Kite, *[Elanus leucurus]).* There was no doubt in my mind that he had indeed observed either an aberrant male Northern Harrier *(Circus cyaneus)* or a Black-shouldered Kite.

Immediately upon arriving Steve yelled, "There it is! There is a white bird in the top of that dead tree!". Arriving at the location at 1100 hours, we observed a bird about the size of a Northern Harrier perched on an aspen snag. We were less than 50 meters from the Kite and with binoculars and scopes we closely observed the bird. The bird was varying shades of white with prominent black shoulder patches which, when the bird was in flight, were prominent on the forward edge of the wing. While the only one I had ever previously observed was in California in 1969 there was no doubt as to the identity of this bird, the second record in Wisconsin.

We watched the bird from 1100 until 1115 and went to the nearest farm house where I called Phil Luepke of Marshfield and he said he would get to the WSO convention and find someone to come with him to verify our "find". During the interim of the time that passed, vehicle traffic caused the kite to flush from its perch. It would make a sortie out over the savanna habitat approximately 50 meters and return directly to the tip of the dead tree.

Within 800 meters of the kite was an active Red-tailed Hawk *(Buteo jamiacensis)* nest with two young. Adult Northern Harriers were hunting and we saw evidence (up to four adult birds, food transfers, carrying food to the same spot) of two pairs of nests about 600 meters apart.

The kite flew upwards and an adult Red-tail was in it's flight path, about 200 meters north of the kite. Five or six times the kite dove and on two occasions it appeared to come into contact with the Red-tail. The Red-tail rapidly gained altitude and flew to the northwest. At this time (1230 hours), an adult male Cooper's Hawk *(Accipiter cooperii)* crossed from south to north at about 100 meters elevation and the kite attacked it and drove it into the woods north of the savana. Then a Broad-winged hawk *(Buteo platypterus)* began to circle upwards from the wooded area to the north and as if part of a staged play the kite was in full pursuit within mere seconds. The Broad-wing tried to gain altitude with the kite in constant attack, but the hawk dove back into the wooded area and the kite made a dive and was lost from view. These observations took place in less than four minutes. During this time (1229-1233 hrs.), two of the adult N. Harriers were about 400 meters east of the kite near their suspected nests. Not once did the kite make any attempt to harass or attack any of the Harriers. None of the Harriers came close to the kite.

We looked for the kite for about an hour and were just about to give up when Ed Locey and I went back around the original location and there sat the kite in the same tree. Eventually Phil and Ken Luepke and Keith Merkel all got to verify the identification of the kite.

We all left about 1445 for various reasons including informing the convention attendance at the paper sessions.

Keith and I returned again at 1615. The bird was now in another small dead aspen about 70 meters from the first kite. At 1635 the bird flew a short distance and hovered. Then its wings lifted into a high "V" and the bird dropped quickly to the ground. It flew up with a *Microtus sp.?* at 1638 and transfered it from beak to left foot. It ate this entire vole in two/three large bites and was quickly aloft again. At 1640 it again dropped into the grass and came up with a small rodent.

The habitat that this kite was observed in is similar to that of the site of Wisconsin's first record for this species (Hamerstrom 1964). These two locations are but 30 Km apart. The habitat is long fallow fields that have regrown to long grasses, sedges and black willow *(Salix nigra)* bushes intermittenly. Several of the WSO observers commented on how the area looked so much like areas in Texas where they had observed this species.

LITERATURE CITED

Hamerstrom, Frances. 1965. A White-tailed Kite in Wisconsin. Passenger Pigeon, 27:3-8.

Peterson, R.T. 1980, A Field Guide to the Birds.

Robbins, C.S., et. al. 1966. Birds of North America.

ACKNOWLEDGEMENTS

To: Dennis Seavers for knowing something was "different", Ken and Phil Luepke and Keith Merkel for verifying our observation; Steve Rennhack for his assistance and help through the years and all of the WSO for sharing the joy of discovery.

Respectfully submitted: June 30, 1987.

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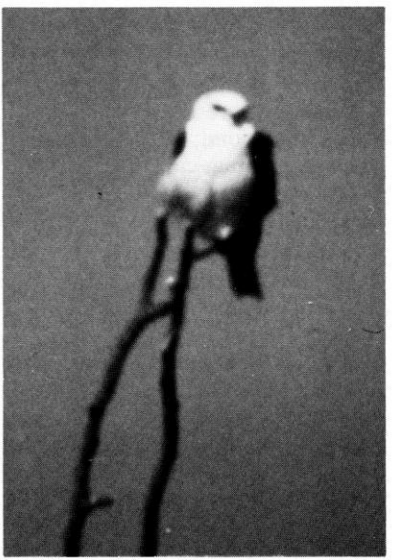

Birds of the Petenwell Wildlife Area

By David A. Ross

The Petenwell Wildlife Area (PWA) is a 750-acre wildlife sanctuary owned and managed by the Wisconsin River Power Company (WRPCo.). Located in the Tension Zone (Curtis 1959), the PWA is a diverse area containing cattail marshes, aspen and oak woods, prairie type grass lands, small ponds, and streams (Ross and Anderson 1983, Ross 1985). Presently, WRPCo. conducts controlled burns, aspen and alder strip-cuts, and mowing to enhance habitat quality on the area. During 1982 and 1983, a wildlife inventory was conducted for WRPCo. by the University of Wisconsin-Stevens Point to provide baseline information that would be useful in formulating management objectives. This inventory plus more recent observations by the author provide the basis for the following description of bird life in the PWA. Nomenclature follows Am. Ornith. Union (1982). A list of all birds observed on the PWA is included in this report (Table 1).

Spring and fall are the best times to visit the PWA, as migrants are abundant at these times. Waterfowl, sandhill cranes, shorebirds, and bald eagles concentate in the PWA during spring and fall, fall, late summer, and winter, respectively. As many as 1000 Canada geese and 122 Sandhill Cranes have concentrated on a single 106-acre pond during the fall. In recent years, up to 11 Bald Eagles have been observed on the PWA. Other notable winter visitors have included the Snowy Owl, Goshawk, Northern Shrike, Tundra Swan, and Snow Bunting.

A short list of the most interesting bird sightings include Yellow-crowned Night Heron, Baird's Sandpiper, Red-shouldered Hawk, Osprey, Common Tern, Black Tern (immature), and Caspian Tern. Bluebirds are a common breeder on the PWA and nest boxes have been erected for their use. In 1986, about 70% of those boxes erected were used by Tree Swallows! Osprey platforms, Kestrel, and duck boxes have also been erected. Both Wood Ducks and Hooded Mergansers have nested in the PWA and we hope to enhance the nesting of both species by placing the boxes only in the most suitable locations and habitat.

An observation/photography blind has been constructed and is available to interested persons on a reservation-only basis. The blind is located at the edge of a field and a large pond; a 1/2 mile hike is required to reach the blind. To reserve a morning or evening, call WRPCo. at (715) 422-3789. The blind holds up to three persons comfortably.

Table 1. Bird species observed on the Petenwell Wildlife Area, 1982-1986.

Common Loon
Pied-billed Grebe
Double-crested Cormorant
Tundra Swan[d]
Snow Goose ("blue" phase)
Canada Goose[a]
American Black Duck[a]
Gadwall[a]
Mallard[a]
Common Pintail[d]
American Widgeon
Wood Duck[a]
Northern Shoveler
Blue-winged Teal[a]
Green-winged Teal
Muscovy[b]
Yellow-bellied Sapsucker
Downy Woodpecker
Hairy Woodpecker
Scissor-tailed Flycatcher[c]
Eastern Kingbird[a]
Great Crested Flycatcher
Eastern Phoebe[a]
Eastern Pewee[a]
Least Flycatcher[a]
Horned Lark[a]
Cliff Swallow[a]
Barn Swallow[a]
Tree Swallow[a]
Bank Swallow[a]
Chimney Swift
American Crow[a]

Canvasback
Ring-necked Duck
Scaup
Common Goldeneye
Bufflehead
Common Merganser
Hooded Merganser[a]
American Coot
Ring-billed Gull
Caspian Tern
Common Tern
Forster's Tern[c]
Black Tern
Great Blue Heron[a]
Yellow-crowned Night Heron
Green-backed Heron
American Bittern
Sandhill Crane[a]
Virginia Rail[a]
Sora[a]
Killdeer[a]
American Woodcock[a]
Common Snipe[a]
Lesser Yellowlegs
Solitary Sandpiper
Spotted Sandpiper
Baird's Sandpiper
Ruffed Grouse[a]
Common Bobwhite
Sharp-shinned Hawk
Cooper's Hawk
Northern Goshawk[d]
Northern Harrier
Red-tailed Hawk
Rough-legged Hawk[d]
Red-shouldered Hawk
Broad-winged Hawk
Bald Eagle[a]
Osprey
Turkey Vulture
American Kestrel
Great Horned Owl[a]
Barred Owl[a]
Snowy Owl[d]
Mourning Dove[a]
Rock Dove[b]
Yellow-billed Cuckoo[a]
Black-billed Cuckoo
Common Night Hawk
Whip-poor-will[a]
Red-headed Woodpecker[a]
Pileated Woodpecker
Common Flicker[a]
Red-bellied Woodpecker[a]
Northern Raven[d]
Bluejay[a]
Black-capped Chickadee
Tufted Titmouse
White-breasted Nuthatch
Brown Creeper
House Wren[a]
Ruby-crowned Kinglet
Brown Thrasher[a]
Gray Catbird[a]
Northern Mockingbird
Eastern Bluebird[a]
American Robin[a]
Hermit Thrush
Veery
Wood Thrush[a]
Northern Shrike[d]
Cedar Waxwing[a]
Red-eyed Vireo[a]
Warbling Vireo[a]
Yellow-rumped Warbler
Chestnut-sided Warbler
American Redstart
Yellow Warbler[a]
Common Yellowthroat[a]
Ovenbird[a]
Red-winged Blackbird[a]
Brown-headed Cowbird[a]
Brewer's Blackbird
Common Grackle[a]
Western Meadowlark[a]
European Starling[a]
Northern Oriole[a]
Scarlet Tanager
House Sparrow[b]
Northern Junco
Snow Bunting[a]
Northern cardinal
Common Redpoll[d]
Purple Finch[d]
Evening Grosbeak[d]
American Goldfinch
Pine Siskin[d]
Rose-breasted Grosbeak[a]
Rufous-sided Towhee
White-throated Sparrow[d]
White-crowned Sparrow
Chipping Sparrow[a]
Field Sparrow[a]
American Tree Sparrow[d]
Fox Sparrow[d]
Song Sparrow[a]
Vesper Sparrow[a]
Savannah Sparrow[a]

[a] Has bred on or near the PWA.
[b] Introduced.
[c] Observed defending territory nearby, but no nests located.
[d] Winter visitor.
[e] See **Passenger Pigeon** 47(2):82-83

LITERATURE CITED

Am. Ornith. Union. 1982. Thirty-fourth supplement to the American Ornithologists Union, checklist of North American birds. AUK 99:1-16.

Curtis, J.T. 1959. The vegetation of Wisconsin. Univ. Wisc. Press., Madison 657 pp.

Ross, D.A. 1985. Habitat use and movements of a Blanding's turtle *Emydoidea blandingi* population in central Wisconsin. M.S. Thesis. Univ. Wisc. - Stevens Point. 55 pp.

Ross, D.A. and R.K. Anderson. 1983. A wildlife inventory of and some management recommendations for the Petenwell Wildlife Area. A final report to Wisconsin River Power Co. Univ. Wisc.-Stevens Point. 80 pp.

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How Did This Wren Die?

By Carroll Rudy

On June 3rd, 1987, my husband Martin found an adult House Wren dead in our driveway, apparently dead of natural causes. I did a post mortem on the body and found that the bird was a male in very good health at the time of death. It had been killed by puncture wounds: one in the back of the head behind the right ear pierced the skin and produced a deep indentation in the skull, and another puncture wound behind the right scapula near the backbone had pierced the lungs which had filled with blood had probably quickly killed the bird. A third puncture wound had penetrated the sacrum and kidney, producing internal bleeding. Any of the wounds would probably have killed the wren ultimately, but the lung puncture killed it first.

All three puncture wounds had been made by a very sharp thin object about the size and shape of a House Wren's bill. Their position was inconsistant with wounds made by the talons of a hawk or teeth of a mammal and the bird was not marked or bruised in any other way so it had not been squeezed or struck. The holes in the skin were no larger than pinholes to pencil lead size. There were several male wrens quarreling over territory in our yard at the time, and numerous scuffles could be observed: as many as two per hour. One male wren would attack another male wren, drive him to the ground and physically jump on him. Could this wren have been killed in such a scuffle by another male wren? The wounds were compatable with such an explanation, and wrens are known to kill birds much larger than themselves in competition for bird houses. I have also found dead wrens in my yard in summers past, but did not autopsy the bodies because they had been dead too long.

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FIELD NOTES

THE FALL SEASON

August 1 to November 30, 1986 **By Mark Peterson**

The Fall of 1986 will be remembered, not for the unusual birds seen, but for the record amounts of rain that fell, especially in August and September. Most of the unusual birds that were seen did not stay very long. The number of species and the peak number of individual species was down from last year's totals.

August will be remembered for the record rainfall that occurred, especially in the southeastern part of the state. On August 6 a downpour occurred in the Milwaukee area with the highest rainfall ever recorded in a 24 hour period at 6.84". 6" were recorded at Mitchell International Airport between noon and 2 p.m. Flash flooding was reported from Oak Creek through South Milwaukee and West Milwaukee to Wauwatosa. Many flooded basements were reported in this area. Nice weather, with no clue to what was occurring to the southeast, was the case from the west-central through the northeast parts of the state. A high temperature of 92 occurred on the 16th in Eau Claire, while the low as 32 at Shell Lake on the 28th.

September was again a rainy month. Between the 9th and 11th, 13.27" of rain fell on Chilton in a 48 hour period, with 7.94" at Holy Hill. Up to 7" fell on Ozaukee, Waukesha, and Milwaukee Counties during the same period. During the period from the 22nd to the 28th, 1-2" fell in the north, 2-4" in the central, 3'5" in the south, with 5-7" in the southeastern counties that border Illinois. A high of 90 was reported on the 25th at Cassville and Beloit, with a low of 27 at Harrison on the 16th. Freezing temperatures in the northwest with frost in all but the extreme east occurred on the 7th. Notable waves of migrants occurred on the 4th, 22-23, and 27-28, with the largest of these on 22-23.

October was drier, but still wet. A high of 80 was reported at Cassville on the 20th, with a low of 20 at Lake Thompson on the 10th. 1-4" of snow fell across the northern 1/3 of the state on the 14th with 4" at Phillips.

November had about 1/2 of the normal precipitation, but it was colder than normal. Winds gusted up to 60 mph on the 8th with some trees reported down. The 15th through the 23rd was a snowy period with 1-2" in the northern areas on the 15th, 4-5" in the southwest and 1-2" elsewhere on the 17th, 3-6" on the 19th and 20th throughout the state, and 1/2" to 2" in the north on the 23rd. Several days

of record cold were reported between the 10th and 16th, with a low of -10 on the 13th at Lake Thompson, Phillips, and Pine Lake. A high of 60 was reported in several locations from the 6th to the 8th.

During the period 76 observers found 275 species which is down from the 281 species found the previous fall. Rarities found during the period included: Eared Grebe, Western Grebe, American White Pelicans, Yellow-crowned Night Heron, Plegadis Ibis, Cinnamon Teal, Harlequin Duck, The Three Scoters, Swainson's Hawk, Golden Eagles, Gyrfalcon, Spruce Grouse, Black-necked Stilts, Willets, Whimbrel, Western Sandpipers, Purple Sandpiper, Buff-breasted Sandpipers, Red-necked Phalaropes, Parasitic Jaeger, Little Gulls, Glaucous Gulls, Mew Gull, Black-backed Woodpeckers, Varied Thrush, Yellow-throated Warbler, Hooded Warblers, Sharp-tailed Sparrow, and House Finches.

THE SEASONAL SUMMARY

Red-throated Loon: Reported by Baughman in Ozaukee County on October 30 and by Johnson in Douglas County on November 5.

Common Loon: Found at the beginning of the period south to Door, Marinette, Langlade, and Chippewa Counties. Verch found 17 in Ashland/Bayfield Counties on October 28, and Ashman found 16 in Dane County onNovember 23. Reported at the end of the period in Dane, Jackson, and Jefferson Counties.

Pied-billed Grebe: Found throughout the state at the beginning of the period. Hale found 31 in Jefferson County on October 6. Reported at the end of the period in Dane and Walworth Counties.

Horned Gredbe: First reported by Mueller in Ozaudee County on September 20. Verch found 45 in Ashland/Bayfield Counties on October 21. Reported at the end of the period in Dane and Walworth Counties.

Red-neck Grebe: Ziebell reported 4 in Winnebago County on August 1, and the species remained there until September 26. Reported by Swengel in Bayfield County on October 6-7; by Johnson in Dougles County on October 11; and by Swengel in Ozaukee County on November 17.

Eared Grebe: Reported by Frank in Milwaukee County on September 18, by Mueller in Milwaukee County on October 12, and by Tessen in Milwaukee County on October 19.

Western Grebe: Reported by Swengel in Dodge County on August 5.

American White Pelican: Lesher found 5 in La Crosse on August 28, Baughman and Tessen found 3 in Dodge County on September 6, Thiessen found 2 in Grant County on September 27, Cowart found one in Milwaukee County on October 8, Frank found one in Milwaukee County on October 9, Hanbury found one in Milwaukee County on October 10, and Johnson found 8 in Douglas County on October 11.

Double-crested Cormorant: Reported at the beginning of the period south to Manitowoc, Dodge, Jackson and Trempeleau Counties. Tessen reported hundreds in Brown County at the beginning of the period. Last reported by Hale in Jefferson County on November 24.

American Bittern: Found at the beginning of the period south to Manitowoc, Dodge, Jackson and Trempeleau Counties. Tessen reported hundreds in Brown County at the beginning of the period. Last reported by Hale in Jefferson County on November 24.

Least Bittern: Reported at the beginning of the period in Columbia, Marinette, Rock and Winnebago Counties. Tessen found 5 in Brown County on August 7. Last reported by Swengel in Dodge County on Spetember 2.

Great Blue Heron: Found throughout the state at the beginning of the period. The Luepkes found 10 in Marathon County on August 16. Reported at the end of the period in Dane, Rock, and Walworth Counties.

Great Egret: Reported at the beginning of the period in Burnett, Dodge, Polk, Trempeleau, and Winnebago Counties. Ziebell found 60 in Winnebago County on August 1. Last reported by Lesher in La Crosse County on November 15.

Cattle Egret: Reported by Tessen in Brown County on August 7, by thiessen in Dane County on August 10, and by T. Risch in Jackson County on August 12 and August 27.

Green-backed Heron: Found throughout the state at the beginning of the period. The Luepkes found 8 in Marathon County on August 15. Last reported by Sutton in Dane County on November.

Black-crowned Night Heron: Reported at the beginning of the period in Brown, Dane, Door, Manitowoc, Marinette, Sheboygan, and Winnebago Counties. Lindberg found 50 in Marinette County on September 13. Last reported by Mueller in Brown County on November 23.

Yellow-crowned Night Heron: Found by Cowart in Milwaukee County on September 4, by Frank in Milwaukee County on September 8, and by Tessen in Milwaukee County on October 5.

Plegadis Ibis: Legler found one in Columbia County at Goose Pond on September 30. See By the Wayside.

Tundra Swan: First reproted by Verch in Ashland/Bayfield Counties on October 7. Lesher found 3000 in La Crosse County on November 30. Found at the end of the period in Jefferson and La Crosse Counties.

Mute Swan: Reported during the period in Ashland, Bayfield, Fond du Lac, Sheboygan, and Washington Counties. Verch found 24 in Ashland/Bayfield Counties on October 21, and Swengel found 23 in Bayfield County on November 11.

Snow Goose: First reported by Tessen in Brown County on August 7. Goff found 50 in Barron County on October 4. Last reported by the Lukes in Door County on November 24.

Canada Goose: Found throughout the state at the beginning of the period. Ziebell reported 5000 in Winnebago County on October 4. Reported at the end of the period north to Burnett and Marinette Counties.

Wood Duck: Reported throughout the state at the beginning of the period. Ziebell found 30 in Winnebago County on August 1, and Merz found 30 in Crawford county on October 7. Reported at the end of the period in Door and Sauk Counties.

Green-winged Teal: Found at the beginning of the period in Barron, Burnett, Chippewa, Langlade, Marathon, Marinette, and Winnebago Counties. The Luepkes found 20 in Marathon County on August 27, and Ashman found 20 in Columbia County on October 23. Last reported by Baughman in Dodge County at the end of the period.

American Black Duck: Reported at the beginning of the period in Ashland, Barron, Bayfield, Door, Manitowoc, Marinette, Milwaukee, and Winnebago Counties. Ashman found 60 in Columbia County on November 4. Found at the end of the period north to Door, Ashland, and Bayfield Counties.

Mallard: Found throughout the state at the beginning of the period. Ashman reported 2000 in Columbia County on October 29. Reported at the end of the period north to Door, Ashland, Bayfield, and Burnett Counties.

Northern Pintail: Reported at the beginning of the period in Door, Marinette, and Winnebago Counties. Johnson found 38 in Douglas county on September 14. Found at the end of the period in Dodge and Fond du Lac Counties.

Blue-winged Teal: Found throughout the state at the beginning of the period. Ziebell found 140 in Winnebago county on August 1. Last reported by Sontag in Manitowoc County on November 16.

Cinnamon Teal: Williams reported that a male was bagged by a hunter on October 4 near Sun Prairie in Dane County.

Northern Shoveler: Found at the beginning of the period in Barron, Chippewa and Dane Counties. Ashman found 35 in Dane County on October 7. Last reported by Ashman in Dane County on November 29.

Gadwall: Reported at the beginning of the period in Dodge and Marinette Counties. Ashman found 61 in Dane County on November 16. Reported at the end of the period by Ashman in Dane County.

American Wigeon: Found at the beginning of the period in Dodge and Dunn Counties. Verch found 47 in Ashland/Bayfield Counties on September 23. Reported at the end of the period in Chippewa and Dane Counties.

Canvasback: First reported by Ziebell in Winnebago County on September 6. Hunter found 100 in Trempeleau County on November 6. Found at the end of the period in Ashland, Bayfield, Jefferson, and Walworth Counties.

Redhead: Found at the beginning of the period in Dane, Dodge, and Winnebago Counties. Verch found 170 in Ashland/Bayfield Counties on November 4. Reported at the end of the period in Dodge and Jefferson Counties.

Ring-necked Duck: Reported at the beginning of the period in Barron, Burnett, Manitowoc,and Taylor Counties. Hunter found 100 in Trempeleau County on November 6. Found at the end of the period in Jefferson and Sauk Counties.

Greater Scaup: First reported by Johnson in Douglas County on August 16. Tessen found several thousand in Ozaukee County on November 1. Found at the end of the period in Milwaukee, Sheboygan and Winnebago Counties.

Lesser Scaup: Reported at the beginning of the period in Manitowoc and Milwaukee Counties. Verch found 1516 in Ashland/Bayfield Counties on October 21. Found at the end of the period in Ashland, Bayfield, Chippewa, Dane, Milwaukee, Sauk, Walworth and Winnebago Counties.

Harlequin Duck: The Brassers found a female in Sheboygan on November 8 and November 9.

Oldsquaw: First reported by Polk in Chippewa County on October 17. Sontag found 6 in Manitowoc County on November 29. Reported at the end of the period in Manitowoc County by Sontag.

Black Scoter: Cowart found 27 in Ozaukee County on August 27. Last reported by Swengel in Ozaukee County on November 17. Also found in Ashland, Bayfield, Manitowoc, Milwaukee, Sauk and Sheboygan Counties.

Surf Scoter: First reported by Cowart in Ozaukee County on September 12. Cowart found 34 in Ozaukee County on October 20. Last reported by Baughman in Ozaukee County on November 22. Also reported in Ashland, Bayfield, Door, Milwaukee, Sauk and Sheboygan Counties.

White-winged Scoter: First reported by Baughman in Ozaukee County on October 5. Bontly found 132 in Milwaukee County on November 29. Also found in Ashland, Bayfield, Door, Douglas, Manitowoc and Racine Counties.

Common Goldeneye: Reported at the beginning of the period in Iron County by Butterbrodt. Sontag found 120 in Manitowoc County on November 13. Found throughout the state at the end of the period.

Bufflehead: First reported by Tessen in Oneida County on August 19. Woodmansee found 54 in Milwaukee County on November 16. Found at the end of the period north to Manitowoc, Winnebago, Ashland and Bayfield Counties.

Hooded Merganser: Found at the beginning of the period in Barron and Milwaukee Counties. Ashman found 50 in Dane County on November 23. Reported at the end of the period in Dane, Door, Jefferson and La Crosse Counties.

Common Merganser: Reported at the beginning of the period in Iron and Marinette Counties. Hale found 129 in Jefferson County on November 24. Found at the end of the period in Ashland, Bayfield, Dane, Jefferson, La Crosse, Manitowoc, Sauk, Sheboygan and Winnebago Counties.

Red-breasted Merganser: Found at the beginning of the period in Ashland, Bayfield, and Door Counties. Tessen found 400 in Ozaukee County on October 13. Reported at the end of the period in Dane, Door and Manitowoc Counties.

Ruddy Duck: Found at the beginning of the period in Chippewa, Columbia, Dodge, Dunn, Fond du Lac, and Winnebago Counties. Cowart found 325 in Milwaukee County on November 8. Reported at the end of the period in Dane, Jefferson, Manitowoc, Milwaukee, Sauk, Sheboygan and Winnebago Counties.

Turkey Vulture: Reported at the beginning of the period north to Door, Marinette, Langlade, Iron, Ashland and Bayfield Counties. Hoefler found 15 in Burnett County on Spetember 23. Last reported by Berger in Sheboygan County on November 8.

Osprey: Found at the beginning of the period south to Manitowoc, Outagamie, Shawano, Marathon and Burnett Counties. Berger found 14 in Sheboygan County on September 5. Last reported on November 9 in Ozaukee County by Baughman and in Sheboygan County by Berger.

Bald Eagle: Found at the beginning of the period south to Marinette, Langlade, and Crqawford Counties. Goers found 37 on Shawano Lake on November 15. Reported at the end of the period south to Winnebago, Dane, Sauk and Crawford Counties.

Northern Harrier: Reported at the beginning of the period south to Door, Marinette, Langlade, Marathon, and Monroe Counties. Cowart found 29 in Ozaukee County on November 9. Found at the end of the period in Burnett and Jackson Counties.

Sharp-shinned Hawk: Found in scattered areas throughout the state at the beginning of the period. Berger found 262 in Sheboygan County on September 27. Reported at the end of the period in Door, Jackson, La Crosse, Langlade, Monroe and Walworth Counties.

Cooper's Hawk: Reported at the beginning of the period in scattered areas throughout the state. Cowart found 15 in Ozaukee County on September 27. Found at the end of the period in Crawford, Dane, and Sauk Counties.

Northern Goshawk: Found at the beginning of the period in Door, Iron and Marinette Counties. Reported at the end of the period in Chippewa, Door, Dunn, Eau Claire, Iron, Langlade and Sheboygan Counties.

Red-shouldered Hawk: Reported at the begining of the period in Burnett, Chippewa, Dunn, Eau Claire, Fond du Lac, Jackson, Marinette, Outagamie and Polk Counties. Last reported by Berger in Sheboygan County on November 25.

Broad-winged Hawk: Found at the beginning of the period south to Fond du Lac, Sauk and Monroe Counties. Smith found 205 in Waukesha County on September 23. Last reported by T. Risch in Jackson County on November 6. One that was injured was found in Shawano County by a hunter on November 23.

Swainson's Hawk: Berger saw one in Sheboygan County on September 12.

Red-tailed Hawk: Found throughout the state at the beginning of the period. Cowart found 61 in Ozaukee County on November 9. Found at the end of the period north to Burnett, Taylor, Marathon, Outagamie and Sheboygan Counties.

Rough-legged Hawk: First reported by Roy in Bayfield County on September 2. Verch found 13 in Ashland/Bayfield Counties on October 19. Found throughout the state at the end of the period.

Golden Eagle: Reported by Berger in Sheboygan County on October 3 and November 12, by Swengel in Ashland county on November 11, and one was found dead in Shawano County on November 6.

American Kestrel: Found throughout the state at the beginning of the period. Berger found 53 in Sheboygan County on September 5. Reported at the end of the period north to Manitowoc, Brown, Marathon and Burnett Counties.

Merlin: Reported at the beginning of the period in Chippewa and Jackson Counties. Berger found 99 in Sheboygan County on October 5. Last reported by Woodmansee in Milwaukee County on November 20.

Peregrine Falcon: Reported at the beginning of the period in Sauk County by Swengel. Cowart found 9 in Ozaukee County on October 5. Last reported by Johnson in Douglas County on October 22. Also reported in Burnett, Dane, Dodge, Door, Milwaukee, Racine, Sheboygan and Taylor Counties.

Gyrfalcon: Donald saw one in Ozaukee County on October 13.

Gray Partridge: Found during the period in Columbia, Marinette, Ozaukee and Walworth Counties. Baughman found 16 in Ozaukee County on October 12.

Ring-necked Pheasant: Reported during the period north to Door, Marinette, Price and Douglas Counties. Hunter found 5 in Trempeleau County on September 24.

Spruce Grouse: DeBoer found 2 in Oneida County on September 4 and 3 in Oneida County on November 1.

Ruffed Grouse: Found during the period south to Outagamie, Sauk and Crawford Counties. The Luepkes found 26 in Marathon County on October 18.

Greater Prairie Chicken: Reported throughout the period in Burnett County by Hoefler.

Sharp-tailed Grouse: Reported throughout the period in Burnett County by Hoefler. Found by the Sheas in Burnett County on Spetember 26.

Wild Turkey: Reported during the period in Crawford, Dodge, Jackson, Marinette, and Sauk Counties.

Northern Bobwhite: Found during the period in Columbia, Crawford, Dunn, Eau Claire, Green, Ozaukee and Rock Counties. Merz found 20 in Crawford county on September 19.

Virginia Rail: Reported at the beginning of the period in Ashland, Bayfield, Burnett, Dane, Marinette and Outagamie Counties. Swengel found 8 in Dodge County on September 2. Last reported by Hoefler in Burnett County on September 7.

Sora: Found at the beginning of the period south to Manitowoc and Trempeleau Counties. Swengel found 35 in Dodge County on September 2. Last reported by Ashman in Dane County on Spetember 29. One Oct. 4, Eau Claire Co. (Kemper).

Common Moorhen: Reported at the beginning of the period in Columbia, Marinette, Walworth and Winnebago Counties. Last reported by Lindberg in Marinette County on October 6.

American Coot: Found at the beginning of the period in Barron, Jackson, Marinette, Walworth, Waukesha and Winnebago Counties. Hale found over 2000 in Jefferson County on October 29. Reported at the end of the period in Dane, Jefferson, Sauk, Walworth and Winnebago Counties.

Sandhill Crane: Reported in scattered areas throughout the state at the beginning of the period. The Luepkes found 115 in Marathon County on October 4. Last reported by Sutton in Dane County on November 26.

Black-bellied Plover: First reported by Sutton in Dane County on August 2. Sontag found 3 in Manitowoc County on September 18. Last reported by Johnson in Douglas County in October 28.

Lesser Golden Plover: First reported by Polk in Eau Claire County on August 8. The Luepkes found 29 in Marathon County on September 20. Last reported by Polk in Eau Claire County on November 7.

Semipalmated Plover: Found at the beginning of the period in Dane, Douglas, Eau Claire, Iron and Manitowoc Counties. Sontag found 6 in Manitowoc County on September 4 and Johnson found 6 in Douglas County on September 6. Last reported on October 15 in Dane County by Sutton and in Waukesha County by Woodmansee.

Killdeer: Found throughout the state at the beginning of the period. Cowart found 381 in Ozaukee County on November 9. Last reported by Sontag in Manitowoc County on November 16.

Black-necked Stilt: Haugen found 2 in Horicon National Wildlife Refuge on August 11 and August 18, Swengel found one there on September 2, and Tessen found one there on September 6. Accepted by Records Committee. See By the Wayside.

Greater Yellowlegs: Found at the beginning of the period in Burnett, Chippewa, Dodge, Dunn, Eau Claire, Jackson, Jefferson, Shawano, Walworth and Winnebago Counties. Ziebell found 12 in Winnebago County on September 28. Last reported on November 7 in Burnett County by Sutton and in Eua Claire County by Polk.

Lesser Yellowlegs: Found in scattered areas throughout the state at the beginning of the period. The Luepkes found 150 in Marathon County on August 27. Last reported by Tessen in Manitowoc County on October 19.

Solitary Sandpiper: Reported at the beginning of the period in Barron, Columbia, Chippewa, Dane, Dunn, Eau Claire, Jefferson, Shawano, Walworth and Winnebago Counties. The Luepkes found 10 in Marathon County on August 27. Last reported by Sutton in Dane County on October 15.

Willet: Sontag found 7 in Manitowoc County on August 6 and Tessen found one in Manitowoc County on August 22.

Spotted Sandpiper: Found throughout the state at the beginning of the period. Sontag found 14 in Manitowoc County on August 29. Last reported by Sontag in Manitowoc County on October 24.

Upland Sandpiper: Reported at the beginning of the period in Iron, Langlade and Marinette Counties. Last reported in Langlade County by Pickering on September 22.

Whimbrel: Sontag found one in Manitowoc County on August 4.

Ruddy Turnstone: Found at the beginning of the period inManitowoc and Sheboygan Counties. Johnson found 10 in Douglas County on September 3. Last reported by Verch in Ashland/Bayfield Counties on November 5.

Red Knot: First reported by Koopman and Swengel in Manitowoc County on August 5. Swengel found 14 in Manitowoc County on August 5. Last reported by Ashman in Columbia County on September 21.

Sanderling: Found at the beginning of the period Manitowoc and Sheboygan Counties. Sontag found 20 in Manitowoc County on August 5. Last reported on October 18 in Manitowoc County by Sontag and in Waukesha County by Woodmansee.

Semipalmated Sandpiper: Reported at the beginning of the period in scattered areas throughout the state. Sontag found 83 in Manitowoc County on August 30. Last reported be Polk in Eau Claire County on October 24

Western Sandpiper: Swengel found 2 in Manitowoc County on August 5.

Least Sandpiper: Found at the beginning of the period in Chippewa, Dane, Dodge, Douglas, Dunn, Eau Claire, Manitowoc and Marinette Counties. Lesher found 20 in La Crosse County on September 1. Last reported by Thiessen in Dane County on October 19.

White-rumped Sandpiper: Found at the beginning of the period in Eau Claire County by Polk. Johnson found 4 in Douglas County on October 18. Last reported by Polk in Eau Claire County on October 26.

Baird's Sandpiper: Reported at the beginning of the period in Chippewa, Columbia, Dodge, Douglas, Dunn and Eau Claire Counties. Polk found 15 in Eau Claire County on August 30. Last reported by Johnson in Douglas County on October 12.

Pectoral Sandpiper: Found at the beginning of the period in Chippewa, Dane, Dodge, Douglas, Dunn, Eua Claire, and Winnebago Counties. The Luepkes found 75 in Marathon County on August 19. Last reported by Cederstrom in Dane County on October 29.

Purple Sandpiper: Johnson found one on Wisconsin Point to October 15. See By the Wayside.

Dunlin: First reported by Sontag in Manitowoc County on August 6. Johnson found 12 in Douglas County on October 15. Last reported by Sontag in Manitowoc County on November 20.

Stilt Sandpiper: Found at the beginning of the period in Chippewa, Dunn, Eau Claire and Manitowoc Counties. Swengel found 5 in Dane County on August 6. Last reported by Ashman in Columbia County on September 21.

Buff-breasted Sandpiper: Tessen saw 11 in Shawano County on August 12 and Lesher saw one in La Crosse County on August 28.

Short-billed Dowitcher: Reported at the beginning of the period in Chippewa, Dunn, Eau Claire and Manitowoc Counties. Sontag found 4 in Manitowoc County on August 29. Last reported by Sontag in Manitowoc County of September 13.

Long-billed Dowitcher: First reported on August 9 in Dane County by Sutton and in Manitowoc County by Koopman. Frank found 44 in Dodge County on October 9. Last reported by Woodmansee on October 18 in Waukesha County.

Common Snipe: Found at the beginning of the period south to Winnebago, Marathon and Eau Claire Counties. N. Risch found 60 in Taylor County on September 5. Last reported by Diehl in Washington County on November 13.

American Woodcock: Found at the beginning of the period south to Door, Marinette, Marathon and Jackson Counties. The Luepkes found 3 in Marathon County on October 2. Last reported by Diehl in Milwaukee County on November 12.

Wilson's Phalarope: First reported on August 6 in Dane County by Swengel and in La Crosse County by Lesher. Lesher found 3 in La Crosse County on August 28. Last reported by Swengel in Dodge County on September 2.

Red-necked Phalarope: First reported by Thiessen in Sheboygan County on August 24. Cowart found 8 in Ozaukee County on September 16. Also reported in Dane, Dodge, Eau Claire and Marathon Counties.

Parasitic Jaeger: Johnson saw one on Wisconsin Point on September 20. See By the Wayside.

Franklin's Gull: First reported by Swengel in Manitowoc County on August 5. Last reported by Ashman in Columbia County on November 4. Also reported in Dane, Fond du Lac, and La Crosse Counties.

Little Gull: Reported at the beginning of the period by Sontag in Manitowoc County. Sontag found 11 in Manitowoc County on August 9. Last reported by Swengel in Milwaukee County on November 17. Also reported in Kewaunee County.

Bonaparte's Gull: Found at the beginning of the period in Douglas, Manitowoc and Milwaukee Counties. Sontag found 49 in Manitowoc County on August 12. Reported at the end of the period in Jefferson, Manitowoc and Milwaukee Counties.

Ring-billed Gull: Found at the beginning of the period south to Walworth, Dane and Jackson Counties. Woodmansee found 1000 in Milwaukee County on September 16 and Sontag found 1000 in Manitowoc County on September 28. Reported at the end of the period in scattered areas throughout the state.

Herring Gull: Reported at the beginning of the period south to Waukesha, Dane and Trempeleau Counties. Sontag found 1500 in Manitowoc County on October 1. Found in scattered areas throughout the state at the end of the period.

Glaucous Gull: Found by Sontag in Manitowoc County on September 13, by Merz in Crawford County on October 5, and by Johnson in Douglas County from October 28 to the end of the period. Johnson found 4 in Douglas County on November 22.

Mew Gull: Seen by Baughman and Sontag in Manitowoc County on October 30. Accepted by the Records Committee. See By the Wayside.

Caspian Tern: Found at the beginning of the period in Brown, Door, Manitowoc, Marinette and Milwaukee Counties. Sontag found 46 in Manitowoc County on August 9. Last reported by Cederstrom in Milwaukee County on October 15.

Common Tern: Reported at the beginning of the period in Ashland, Bayfield, Douglas, Manitowoc, Marinette, Milwaukee and Winneabago Counties. Sontag found 70 in Manitowoc County on August 11. Last reported by the Sheas in Manitowoc County on October 13.

Forster's Tern: Found at the beginning of the period in Manitowoc, Marinette, Milwaukee and Winnebago Counties. Ziebell found 36 in Winnebago County on August 3. Last reported by Cowart in Milwaukee County on October 24.

Black Tern: Reported at the beginning of the period south to Milwaukee, Walworth and Dane Counties. Lesher found 134 in La Crosse County on August 15. Last reported by Swengel in Dodge County on September 2.

Rock Dove: Found throughout the state during the period. Woodmansee found 560 in Milwaukee County on August 27.

Mourning Dove: Reported throughtout the state during the period. Woodmansee found 150 in Milwaukee County on August 30.

Black-billed Cuckoo: Found at the beginning of the period in Barron, Marathon, Price, Rock and Walworth Counties. Last reported by Cederstrom in Milwaukee County on September 12.

Yellow-billed Cuckoo: Found at the beginning of the period in Ashland, Bayfield and Iron Counties. Last reported by Verch in Ashland/Bayfield Counties on September 15.

Eastern Screech Owl: Reported during the period in Barron, Brown, Dane, Jackson, Jefferson, Menominee, Milwaukee, Ozaukee, Walworth, Waukesha and Winnebaqgo Counties.

Great Horned Owl: Found throughout the state during the period. The Luepkes found 4 in Marathon County on September27.

Snowy Owl: Reported from November 2 to the end of the period in Ashland/Bayfield Counties by Verch, from November 12 to November 15 in Shawano County by Peterson, from November 22 to the end of the period in Douglas County by Johnson, on November 25 in Marathon County by the Luepkes, and on November 27 in Dane County by Ashman.

Barred Owl: Found during the period south to Door, Outagamie, Sauk and Crawford Counties. T. Risch found 4 in Jackson County on September 23.

Long-eared Owl: Reported from October 2 to November 13 in Sheboygan County by Berger, on November 20 by N. Risch, and on November 20 in Dane County by Ashman.

Short-eared Owl: Reported from September 27 to the end of the period in Marathon County by the Luepkes, on October 5 in MIlwaukee County by Diehl, and on November 30 in Winnebago County by Ziebell.

Northern Saw-whet Owl: Found at the beginning of the period i n Ashland/Bayfield Counties by Verch. Berger reported 20 in Sheboygan County on October 29. Diehl reported an injured individual in Milwaukee County on November 27. Also found in Brown, burnett, Dane, Jackson, Langlade, Polk and Sauk Counties.

Common Nighthawk: Found throughout the state at the beginning of the period. Cowart saw 150,000 to 200,000 over Ozaukee County on September 4. Last reported by Sutton in Dane County on October 19.

Whip-poor-will: Reported at the beginning of the period in Burnett, Jackson, Marinette, Polk and Price Counties. Last reported by Swengel in Trempeleau County on September 15.

Chimney Swift: Found throughout the state at the beginning of the period. Hardy found 350 in Price County on August 14. Last reported by Tessen in Outagamie County on October 18.

Ruby-throated Hummingbird: Reported south to Walworth, Rock and Crawford Counties at the beginning of the period. Tessen found over 20 in Menominee County on August 13. Last reported by Mahlum in Rock County on October 20.

Belted Kingfisher: Found throughout the state at the beginning of the period. The Luepkes found 8 in Marathon County on August 16. Reported at the end of the period in Crawford, Dane, Jefferson, Milwaukee and Trempeleau Counties.

Red-headed Woodpecker: Found throughout the state at the beginning of the period. Reported at the end of the period in Jackson, Monroe and Sauk Counties.

Red-bellied Woodpecker: Found during the period north to Door, Marinette, Langlade, Price and Burnett Counties.

Yellow-bellied Sapsucker: Reported at the beginning of the period south to Marinette, Shawano and Eau Claire Counties. Hudlick found 8 in Polk County on October 3. Last reported by Cederstrom in Milwaukee County on October 15.

Downy Woodpecker: Found throughout the state during the period. Ashman found 6 in Dane County on November 15.

Hairy Woodpecker: Reported throughout the state during the period. Ashman found 3 in Dane County on October 6.

Black-backed Woodpecker: Reported from the beginning of the period to September 30 in Douglas County by Johnson, on August 19 in Forest county by Tessen, on September 28 in Douglas County by the Sheas, on October 15 in Forest County by Reardon, and in Door County on October 30 by Jack Rudolph via the Lukes.

Northern Flicker: Found throughout the state at the beginning of the period. Hardy found 200 in Price County on October 25. Reported at the end of the period in Chippewa, Dane, Dunn, Eau Claire, Sauk, Taylor, Walworth and Winnebago Counties.

Pileated Woodpecker: Reported during the period south to Outagamie, Dane Sauk and Crawford Counties.

Olive-sided Flycatcher: First reported on August 9 in Forest County by Reardon and in Milwaukee County by Frank. Last reported on September 23 in Manitowoc County by Sontag.

Eastern Wood-Pewee: Found throughout the state at the beginning of the period. The Luepkes found 5 in Marathon County on August 29. Last reported by Ashman in Dane County on October 6.

Yellow-bellied Flycatcher: Found at the beginning of the period in Chippewa, Douglas, Dunn and Eau Claire Counties. Last reported by Hanbury in Milwaukee County on September 28.

Acadian Flycatcher: Reported at the beginning of the period in Dodge, Fond du Lac, and Walworth Counties. Last reported by Parsons in Walworth County on August 31.

Alder Flycatcher: Found at the beginning of the period in Ashland, Bayfield, Chippewa, Douglas, Dunn, Eau Claire, Iron and Shawano Counties. Tessen found 9 in Forest county on August 12. Last reported by Polk in Eau Claire County on September 4.

Willow Flycatcher: Reported at the beginning of the period in Dodge, Green, Jefferson, Rock and Winnebago Counties. Last reported by Cederstrom in Milwaukee County on September 12.

Least Flycatcher: Found at the beginning of the period south to Winnebago and Jackson Counties. Last reported on September 28 in Barron County by Goff.

Empidonax Sp. Flycatcher: Last reported by Ashman in Dane County on September 29.

Eastern Phoebe: Found at the beginning of the period south to Sheboygan and Crawford Countiees. Ashman found 3 in Dane County on September 24. Last reported by Ashman in Dane County on October 21.

Great-Crested Flycatcher: Found throughout the state at the beginning of the period. Woodmansee found 5 in Milwaukee County on September 30.

Eastern Kingbird: Found throughout the state at the beginning of the period. The Luepkes found 22 in Marathon County on Agust 17. Last reported by Baughman in Fond du Lac County on September 28.

Horned Lark: Reported at the beginning of the period north to Door, Langlade, Marathon, Chippewa, Barron and Polk Counties. The Luepkes found 30 in Marathon County on August 16. Found at the end of the period north to Door, Langlade, and Barron Counties.

Purple Martin: Found at the beginning of the period throughout the state. Lindberg found 400 in Marinette County on August 30. Last reported by Baughman in Dodge County on October 4.

Tree Swallow: Reported throughout the state at the beginning of the period. Hudick found 3000 in Polk County on September 21. Last reported by Ashman in Dane County on October 29.

Northern Rough-winged Swallow: Found at the beginning of the period south to Winnebago and Trempeleau Counties. Sontag found 15 in Manitowoc County on September 2. Last reported by Pickering in Langlade County on September 17.

Bank Swallow: Reported in scattered areas throughout the state at the beginning of the period. Ziebell found 900 in Winnebago County on August 3. Last reported by Pickering in Langlade County on September 22.

Cliff Swallow: Found at the beginning of the period south to Manitowoc, Winnebago and Jackson Counties. The Luepkes found 300 in Marathon County on August 16. Last reported by Pickering in Langlade County on September 27.

Barn Swallow: Found throughout the state at the beginning of the period. Ziebell found 80 in Winnebago County on August 12. Last reported by Sontag in Manitowoc County on October 14.

Gray Jay: Found during the period in Burnett, Douglas, Forest, Iron, Oneida, Price, Sawyer and Vilas Counties. De Boer found 9 in Oneida County on September 4.

Blue Jay: Found throughout the state during the period. Merz found 225 in Crawford County on September 20.

American Crow: Reported throughout the state druing the period. The Sheas found 200 in Door County on October 15 and Woodmansee found 200 in Milwaukee County on November 27.

Common Raven: Found during the period south to Sheboygan, Adams and Jackson County. N. Risch found 27 in Taylor County on November 8.

Black-capped Chickadee: Found throughout the state during the period. Ashman found 22 in Dane County on October 6.

Boreal Chickadee: Reported by Tessen in Forest County on August 12, by Tessen in Oneida County on August 19, by the Sheas in Oneida County on October 17, by Reardon in Forest County on October 26, by Peterson in Shawano County on October 27, and by Baughman in Oneida County at the end of the period.

Tufted Titmouse: Reported during the period in Crawford, Chippewa, Dunn, Eau Claire and Rock Counties.

Red-breasted Nuthatch: Found at the beginning of the period south to Door, Dane and Jackson Counties. Smith found 12 in Waukesha County on November 16. Found throughout the state at the end of the period.

White-breasted Nuthatch: Reported throughout the state during the period. Ziebell found 8 in Wininebago County on October 25.

Brown Creeper: Found at the beginning of the period in Ashland, Bayfield, Burnett, Door, Douglas, Langlade, and Polk Counties. Ashman found 5 in Dane County on October 1. Reported throughout the state at the end of the period.

House Wren: Reported throughout the state at the begiinning of the period. Woodmansee found 10 in Milwaukee County on August 19. Last reported by Anderson in Outagamie County on October 7.

Winter Wren: Found at the beginning of the period in Ashland, Bayfield, Door, Douglas, Iron, Langlade, Marinette, Price, and Shawano Counties. Ashman found 8 in Dane County on October 6. Last reported by Wierzbicki in Brown County on November 22.

Sedge Wren: Found at the beginning of the period south to Jefferson and Sauk Counties. Ziebell found 20 in Winnebago County on August 1. Last reported by Frank in Milwaukee County on October 2.

Marsh Wren: Reported at the beginning of the period in Barron, Chippewa, Douoglas, Dunn, Eau Claire, Iron, Marinette, Sheboygan, and Winnebago Counties. Ziebell found 24 in Winnebago County on August 1. Last reported by the Sheas in Kewaunee County on October 13.

Golden-crowned Kinglet: Found at the beginning of the period in Douglas, Iron, and Langlade Counties. Anderson found 100's in Outagamie County on October 9. Reported at the end of the period in Dane, Door, Marinette, Milwaukee, Sauk, Taylor, and Winnebago Counties.

Ruby-crowned Kinglet: Found at the beginning of the period in Iron County by Butterbrodt. Hardy found 50 in Price County on September 25 and Ashman found 50 in Dane County on September 29. Last reported by Parsons in Walworth County on November 15.

Blue-gray Gnatcatcher: Reproted at the beginning of the period in Monroe, Outagamie, Rock, and Sauk Counties. Peterson found 6 in Rock County on August 20. Last reported by Lange in Sauk County on September 7.

Eastern Bluebird: Found at the beginning of the period south to Sheboygan, Walworth, Rock, and Crawford Counties. Richter found 24 in Monroe County on October 8, Hudick found 24 in Polk County on October 8, and Hunter found 24 in Trempeleau County on October 18. Last reported by Hoefler in Burnett County on November 4.

Veery: Found at the beginning of the period in Ashland, Bayfield, Chippewa, Douglas, Dunn, Eau Claire, Forest, Iron, and Langlade Counties. The Engbergs found 5 in Oneida County on September 7. Last reported on September 16 in Milwaukee County by Bontly.

Gray-cheeked Thrush: First reported by Pickering in Langlade County on August 18. Cederstrom found 12 in Milwaukee County on September 12. Last reported by Woodmansee in Milwaukee County on October 6.

Swainson's Thrush: First reported by Woodmansee in Milwaukee County on August 3. Cederstrom found 62 in Milwaukee County on September 12. Last reported by Pickering in Langlade County on October 21.

Hermit Thrush: Found at the beginning of the period south to Sheboygan, Shawano, and Eau Claire Counties. Ashman found 16 in Dane County on October 6. Last reported by the Sheas in Green County on November 23.

Wood Thrush: Found at the beginning of the period in Ashland, Bayfield, Chippewa, Douglas, Dunn, Eau Claire, Iron, Marinette, Monroe, and Walworth Counties. Last reported by Pickering in Langlade County on September 22.

American Robin: Found throughout the state at the beginning of the period. The Luepkes found 250 in Marathon County on October 4. Reported at the end of the period in Ashland, Barron, Bayfield, Dane, Door, Shawano, and Walworth Counties.

Varied Thrush: Hardy reported one at the feeder of Milton Gustin in Park Falls during the week of Thanksgiving.

Gray Catbird: Reported throughout the state at the beginning of the period. Ashman found 16 in Dane County on September 23. Last reported by Lange in Sauk County on November 1.

Brown Thrasher: Found throughout the state at the beginning of the period. Ashman found 5 in Dane County on September 23. Last reported by Bontly in Milwaukee County on November 25.

Water Pipit: First reported by Johnson in Douglas County on September 11. Last reported by N. Risch in Taylor County on October 28.

Bohemian Waxwing: First reported by Verch in Ashland/Bayfield Counties on September 19. Roy found 20 in Bayfield County on November 18. Found at the end of the period in Ashland, Bayfield, Langlade, and Vilas Counties.

Cedar Waxwing: Found throughout the state at the beginning of the period. Cowart found 700 in Ozaukee County on September 4. Reported at the end of the period north to Marinette, Langlade, Chippewa, and Barron Counties.

Northern Shrike: First reported by Reardon in Vilas County on October 14. Found throughout the state at the end of the period.

European Starling: Found throughout the state during the period. Woodmansee found 2000 in Milwaukee County on August 30 and The Luepkes found 2000 in Marathon County on September 5.

Solitary Vireo: Found at the beginning of the period in Barron, Douglas, Langlade, and Sauk Counties. Reported by Polk in Eau Claire County on October 4, by Kemper, Oct. 17.

Yellow-throated Vireo: Reported at the beginning of the period in Outagamie, Monroe, Rock, Shawano, ans Walworth Counties. Last reported on September 23 in Sauk County by Lange and in Walworth County by Parsons.

Warbling Vireo: Found at the beginning of the period north to Marinette, Marathon, and Douglas Counties. Tessen found 5 in Dodge County on September 6. Last reported by Goff in Barron County on September 28.

Philadelphia Vireo: First reported by Bontly in Milwaukee County on August 17. Last reported by Cowart in Ozaukee County on October 5.

Red-eyed Vireo: Found throughout the state at the beginning of the period. Woodmansee found 9 in Milwaukee County on September 2. Last reported by Lange in Suak County on October 14.

Golden-winged Warbler: Reported at the beginning of the period in Barron, Door, Douglas, Iron, and Shawano Counties. Last reported on September 23 in Dane County by Ashman and in Monroe County by Richter.

Tennessee Warbler: First reported by Johnson in Douglas County on August 2. Ashman found 15 in Dane County on September 17. Last reported by the Sheas in Oneida County on October 17.

Orange-crowned Warbler: First reported by Johnson in Douglas County on August 9. Last reported by Polk in Eau Claire County on October 8, Kemper, Chippewa Co. on Oct. 14.

Nashville Warbler: Found at the beginning of the period in Ashland, Bayfield, Chippewa, Door, Douglas, Dunn, Eau Claire, Iron, Price, and Rock Counties. Ashman found 4 in Dane County on September 17. Last reported by Sontag in Manitowoc County on October 22.

Northern Parula Warbler: Reported at the beginning of the period in Door and Douglas Counties. Ashman found 3 in Dane County on September 17. Reported by Sontag in Manitowoc County on September 25; Last Sept. 27, Chippewa County, Kemper.

Yellow Warbler: Found throughout the state at the beginning of the period. Last reported by Harmer in Jackson County on September 23 and Kemper, Eau Claire Co., Sept. 29.

Chestnut-sided Warbler: Reported at the beginning of the period in Ashland, Bayfield, Chippewa, Door, Douglas, Dunn, Eau Claire, Iron, Price, and Shawano Counties. Ashman found 5 in Dane County on September 23. Reported by Bontly in Milwaukee County on September 28. One straggler, Eau Claire Co., Oct. 23 (Kemper).

Magnolia Warbler: Found at the beginning of the peirod in Fond du Lac and Iron Counties. Ashman found 18 in Dane County on September 23. Reported by Parsons in Walworth County on October 11. One very late in Eau Claire, Oct. 23 (Kemper).

Cape May Warbler: First reported on August 8 in Milwaukee County by Bontly and in Shawano County by Peterson. Johnston found 5 in Jefferson County on August 31. Last reported by Hardy in Price County on October 7.

Black-throated Blue Warbler: Found at the beginning of the period in Langlade and Shawano Counties. Last reported by Ashman in Dane County on September 29.

Yellow-rumped Warbler: Reported at the beginning of the period in Ashland, Bayfield, Door, Douglas, Iron, Marinette, Taylor, and Waukesha Counties. Ashman found 90 in Dane County on October 3. Last reported by Cowart in Milwaukee County on November 11.

Black-throated Green Warbler: Found at the beginning of the period in Ashland, Bayfield, Door, Douglas, Iron, and Shawano Counties. Woodmansee found 7 in Milwaukee County on August 28. Last reported by Sontag in Manitowoc County on October 26.

Blackburnian Warbler: Found at the beginning of the period in Douglas, Iron, and Marinette Counties. Woodmansee found 4 in Milwaukee County on August 29. Last reported by Ashman in Dane County on October 6.

Yellow-throated Warbler: Tessen heard one singing along the Sugar River in Rock County on August 2.

Pine Warbler: Reported at the beginning of the period in Chippewa, Door, Douglas, Dunn, and Eau Claire Counties. Last reported on September 20 in Dane County by Thiessen and in Ozaukee County by Baughman.

Palm Warbler: Reported at the beginning of the period in Ashland/Bayfield Counties by Verch. Verch found 18 in Ashland/Bayfield Counties on October 3. Last reported by Ashman in Dane County on October 17.

Bay-breasted Warbler: First reported by Johnson in Douglas County on August 2. Ashman found 6 in Dane County on September 23. Last reported by Ashman in Dane County on October 6.

Blackpoll Warbler: First reported by Pickering in Langlade County on August 9. The Brassers found 12 in Sheboygan County on September 13 and Sontag found 12 in Manitowoc County on September 22. Reported by Sontag in Manitowoc County on September 30. Last Oct. 4, Eau Claire Co. (Kemper).

Cerulean Warbler: Tessen found one in Rock County on August 2.

Black and White Warbler: Found at the beginning of the period in Ashland, Bayfield, Chippewa, Door, Douglas, Dunn, Eau Claire, Iron, Price, and Shawano Counties. Sontag found 5 in Manitowoc County on September 2. Last reported by Tessen in Milwaukee County on October 5.

American Redstart: Found at the beginning of the period south to Manitowoc, Rock, and Eau Claire Counties. Cederstrom found 60 in Milwaukee County on September 5. Last reported by Sontag in Manitowoc County on October 16.

Prothonotary Warbler: Tessen found one in Rock County on August 2 and Peterson found one in Rock County on August 20.

Ovenbird: Reported at the beginning of the period south to Outagamie and Crawford Counties. Last reported by Ashman in Dane County on October 1 and Chippewa Co., Oct. 4 (Kemper).

Northern Waterthrush: Found at the beginning of the period in Door and Iron Counties. Last reported by Tessen in Ozaukee County on November 1.

Louisiana Waterthrush: Reported by Sontag in Manitowoc County on September 4.

Connecticut Warbler: Found at the beginning of the period in Douglas and Price Counties. Reported by Cederstrom in Waukesha County on October 3 and by Kemper, Eau Claire Co, Oct. 4.

Mourning Warbler: Found at the beginning of the period in Burnett, Chippewa, Douglas, Dunn, Eau Claire, Iron, Polk, and Shawano Counties. Last reported by Cederstrom in Milwaukee County on October 3.

Common Yellowthroat: Found throughout the state at the beginning of the period. Ziebell found 4 in Winnebago County on August 1, Woodmansee found 4 in Milwaukee County on August 9, and Ashman found 4 in Dane County on September 29. Last reported by Bontly in Milwaukee County on October 20.

Hooded Warbler: Woodmansee found one in Milwaukee County on August 29 and Beth Frank found one in Milwaukee County on September 23.

Wilson's Warbler: First reported by Tessen in Menominee County on August 12. Last reported by Thiessen in Dane County on October 2.

Canada Warbler: Found at the beginning of the period in Door, Douglas, and Sauk Counties. Last reported by the Lukes in Door County on September 27.

Scarlet Tanager: Reported at the beginning of the period south to Outagamie, Sauk, and Monroe Counties. Last reported by Cederstrom in Waukesha County on October 3.

Northern Cardinal: Found during the period north to Door, Marinette, Langlade, Price, Barron, and Polk Counties. Ashman found 15 in Dane County on September 27.

Rose-breasted Grosbeak: Found at the beginning of the period south to Winnebago, Sauk, and Crawford Counties. The Luepkes found 11 in Marathon County on August 29. Last reported by Ashman in Dane County on November 16.

Indigo Bunting: Found throughout the state at the beginning of the period. Ziebell found 10 in Winnebago County on August 3. Last reported by Cederstrom in Milwaukee County on October 15.

Dickcissel: Reported by Tessen in Rock County on August 2 and by Baughman in Fond du Lac County on September 6.

Rufous-sided Towhee: Found at the beginning of the period north to Marinette, Shawano, and Chippewa Counties. Ashman found 3 in Dane County on October 7. Last reported on October 25 in Sheboygan County by the Brassers and Mueller.

American Tree Sparrow: First reported by Swengel in Sauk County on September 29. The Luepkes found 80 in Marathon County on November 15. Found throughout the state at the end of the period.

Chipping Sparrow: Found throughout the state at the beginning of the period. Johnston found 15 in Walworth County on August 28. Last reported by Sutton in Dane County on November 21.

Clay-colored Sparrow: Reported at the beginning of the period south to Door, Shawano, and Eau Claire Counties. Last reported by Goff in Barron County on October 2.

Field Sparrow: Found at the beginning of the period north to Langlade, Chippewa, and Burnett Counties. Reported at the end of the period in Walworth County by Parsons.

Vesper Sparrow: Reported at the beginning of the period north to Door, Marinette, Langlade, Iron, and Burnett Counties. Last reported by Merz in Crawford County on October 27.

Savannah Sparrow: Found at the beginning of the period south to Brown, Winnebago, Sauk, and Monroe Counties. The Luepkes found 185 in Marathon County on August 16. Last reported by Tessen in Manitowoc County on October 19.

Grasshopper Sparrow: Reported at the beginning of the period in Chippewa, Dunn, Eau Claire, Sauk, and Shawano Counties. Peterson found 6 in Shawano County on August 2. Last reported by Hunter in Trempeleau County on August 11.

Henslow's Sparrow: Found at the beginning of the period in Fond du Lac County on Baughman. Last reported by Polk in Eau Claire County on September 29.

Sharp-tailed Sparrow: Koopman found one in Manitowoc County on October 1.

Fox Sparrow: First reported by Johnson in Douglas County on September 20. Johnson found 11 in Douglas County on October 23. Last reported by Varch in Ashland/Bayfield Counties on November 23.

Song Sparrow: Found throughout the state at the beginning of the period. N. Risch found 31 in Taylor County on September 22. Last reported by Sutton in Dane County on November 29.

Lincoln's Sparrow: Found at the beginning of the period in Ashland/Bayfield Counties by Verch. Last reported by Thiessen in Dane County on October 19.

Swamp Sparrow: Found throughout the state at the beginning of the period. Ziebell found 4 in Winnebago County on August 1 and Fuller found 4 in Burnett/Polk Counties on September 13. Last reported by Sutton in Dane County on November 29.

White-throated Sparrow: Found at the beginning of the period south to Outagamie and Eau Claire Counties. Hudick found 106 in Polk County on October 1. Reported at the end of the period in Dane and Sauk Counties.

White-crowned Sparrow: First reported by Johnson in Douglas County on September 16. Hardy found 10 in Price County on September 29. Last reported by Goff in Barron County on November 20.

Harris' Sparrow: First reported by the Sheas in Burnett County on September 26. Last reported by Verch in Ashland/Bayfield Counties on November 29. Also reported in Price and Taylor Counties.

Dark-eyed Junco: Found at the beginning of the period in Iron County by Butterbrodt. Hardy found 250 in Price County on October 4. Found throughout the state at the end of the period.

Lapland Longspur: First reported by Frank in Dodge County on September 14. The Luepkes found 200 in Marathon County on October 24. Reported at the end of the period in Dunn and Winnebago Counties.

Snow Bunting: First reported by N. Risch in Taylor County on October 8. Hoffman found 4000 in Lafayette County on November 17. Found in scattered areas throughout the state at the end of the period.

Bobolink: Found at the beginning of the period in Barron, Chippewa, Dunn, Eau Claire, Jefferson, Langlade, Marathon, Shawano, and Taylor Counties. The Luepkes found 25 in Marathon County on August 16. Last reported by Goff in Barron County on September 18.

Red-winged Blackbird: Found throughout the state at the beginning of the period. The Luepkes found 3600 in Marathon County on August 25. Reported at the end of the period in Ashland, Bayfield, Brown, La Crosse, Monroe, Walworth, and Winnebago Counties.

Eastern Meadowlark: Found throughout the state at the beginning of the period. N. Risch found 49 in Taylor County on October 6. Last reported by Hunter in Trempeleau County on November 2.

Western Meadowlark: Reported at the beginning of the period east to Langlade, Shawano, and Sauk Counties. Last reported by Hudick in Polk County on October 28.

Yellow-headed Blackbird: Found at the beginning of the period east to Marinette and Manitowoc Counties. Ziebell found 30 in Winnebago County on August 1. Last reported by Baughman in Dodge County on October 26.

Rusty Blackbird: First reported on September 20 in Douglas County by Johnson, in Langlade County by Pickering, and in Vilas County by Reardon. N. Risch found 80 in Taylor County on October 20. Last reported by Verch in Ashland/Bayfield Counties on November 28.

Brewer's Blackbird: Found at the beginning of the period south to Shawano, Marathon, and Eau Claire Counties. Schultz found 300 in Winnebago County on September 20. Last reported by the Sheas on Green County on November 23.

Common Grackle: Found throughout the state at the beginning of the period. Ashman found 750 in Dane County on October 17. Found at the end of the period in Ashland, Barron, Bayfield, Dodge, Jackson, Marathon, Sheboygan, Walworth, and Winnebago Counties.

Brown-headed Cowbird: Found at the beginning of the period south to Walworth, Sauk, and Trempeleau Counties. Ziebell found 6 in Winnebago County on October 13. Reported at the end of the period in Walworth and Winnebago Counties.

Northern Oriole: Found throughout the state at the beginning of the period. Sontag found 6 in Manitowoc County on August 14. Last reported by Goff in Barron County on September 10.

Pine Grosbeak: First reported by Reardon in Forest County on October 10. Found at the end of the period in Ashland, Bayfield, Iron, Langlade, and Vilas Counties.

Purple Finch: Found at the beginning of the period south to Door, Marinette, Shawano, Chippewa, Barron, and Polk Counties. The Lukes found 40 in Door County on October 19. Found throughout the state at the end of the period.

House Finch: Found throughout the period in Milwaukee and Racine Counties. Baughman found 11 in Milwaukee County on November 22.

Red Crossbill: Found at the beginning of the period in Douglas County by Johnson. Woodmansee found 60 in Milwaukee County on November 15. Reported at the end of the period in Dane and Walworth Counties.

White-winged Crossbill: Reported by Reardon in Vilas county on October 2 and Tessen found 30 in Ozaukee County on November 1.

Common Redpoll: First reported by Baughman in Milwaukee County on October 18. Tessen found hundreds in Ozaukee County on November 15. Found in scattered areas throughout the state at the end of the period.

Pine Siskin: Found at the beginning of the period in Ashland, Barron, Bayfield, Douglas, Iron, Sauk, and Taylor Counties. The Lukes found over 100 in Door County on September 23. Found throughout the state at the end of the period.

American Goldfinch: Found throughout the state during the period. Tessen found over 1500 in Ozaukee County on November 15.

Evening Grosbeak: Reported at the beginning of the period in Ashland, Barron, Bayfield, Burnett, Douglas, Iron, Oneida, Polk, Price, and Taylor Counties. Peterson found 50 in Shawano County on November 25 and Hardy found 50 in Price County on November 27. Found at the end of the period south to Milwaukee, Sauk, and Monroe Counties.

House Sparrow: Found throughout the state during the period. N. Risch found 120 in Taylor County on November 27.

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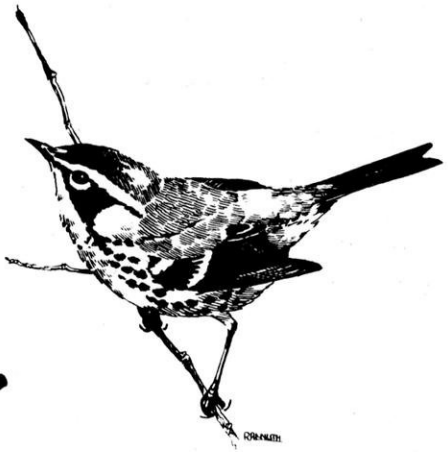
James Anderson, Philip Ashman, Jeffrey L. Baughman, Daniel Berger, Homer C. Bishop, Marilyn Bontly, David and Margaret Brasser, Mary E. Butterbrodt, David Cederstrom, Bill Cowart, Gerald DeBoer, Scott Diehl, Mary Donald, Louise and Paul Engberg, Beth and James Frank, Frank Freese, Pepper Fuller, Dan Goers, Alta Goff, Karen Etter Hale, Don Hanbury, Maybelle Hardy, Dorothy Harmer, Judy Haseleu, Darrell Haugen, Jim Hoefler, Randy Hoffman, Joe Hudick, Thomas Hunter, Robbeye Johnson, Stuart Johnston, Charles Kemper, Harold Koopman, Eleanor, Hans, Roland, and Weldon Kuhn, Kenneth Lange, Karl Legler, Fred Lesher, Harold Lindberg, Ken and Jan Luepke, Roy and Charlotte Lukes, Gyda Mahlum, Ed Merz, William Mueller, Patricia Parsons, Mark and Mary Peterson, Bernard Pickering, Janine Polk, Mary Jean Raile, Bill Reardon, Carol Richter, Nick Risch, Tim Risch, Albert Roy, Clark Schultz, Al and Suzan Shea, Raymond Smith, Charles Sontag, Jonathon Sutton, Scott Swengel, Adair M. Tedards, Daryl Tessen, Steve Thiessen, Dick Verch, Melvin Wierzbicki, Daniel T. Williams, Winnie Woodmansee, Tom Ziebell.

By the Wayside...



Parasitic Jaeger on Wisconsin Point

I was parked at the marsh end of Allouez Bay, hoping in vain for shorebirds, when what looked like a medium-sized dark gull caught my attention. It looked about the size of a Ring-billed Gull (about 18 inches), but it was very dark brown with a small head and the flight was more tern-like. When I realized it was a jaeger, in the 8 to 10 seconds it was in view, I tried to remember what to look for, knowing that some jaeger identification is based in field marks such as "larger than" or "slower wing beat". Having no basis for such judgements, I observed what I could and wrote the following description immediately. Body light dirty white underneath. Top of head black from the bill back to the nape in a cap that appeared to cover the eye, much like a tern's cap. Cheeks yellowish, fading to whitish at the throat. A neat, light brown band formed a necklace around the neck. The upper surface of body, wings, and tial dark brown with a lighter cast to the inner primaries. Central tail feathers at least an inch longer than others, but because of angle of view shape was not clear, but they were not pointed. All dark bill, smaller and thinner than a gull's with a hooked appearance to the tip. I didn't get a good look at the underwings. The bird flew at me across Allouez Bay about 30 feet off the water and at about 100 feet away, it turned and disappeared over the trees. I could not find the bird on the lake side. It was in view for 8 to 10 seconds against an overcast sky with light fog.

After writing notes, I checked my National Geographic field guide and decided it must be a Parasitic. After returning home and looking at Peterson's and Audubon Master Guide, I became confused. The breast band shouldn't have been so clear and complete and one guide lists pomarine as the same size as a Ring-billed Gull, or about 21 inches. Also, points should have been visible on the central tail feathers, unless they were both broken at the same length, and the lighter area on the inner primaries was unlike any in the books. Perhaps this is where I think I saw it, while paying more attention to the head and tail. I am completely inexperienced with jaegers, but still feel because of size and "boyant", or tern-like flight that this was a Parasitic Jaeger.

Robbeye Johnson

Mew Gull at Red Arrow Park in Manitowoc

October 30, 1986, 10:00 a.m. at the Red Arrow Park in Manitowoc. I had stopped just to check out the lakeshore for ducks and gulls, when I noticed a group of about 30 gulls standing along the shore. Immediately, I noticed one gull with a darker mantle than the rest of the gulls. I quickly got the scope on the bird and started writing down notes. The following characteristics of the Mew Gull is based on direct comparisions with the Ring-billed (primarily) and Herring Gulls present.

Size: Slightly but noticably smaller (shorter) than the adult Ring-bills nearby.

Mantle: Blue-gray in color, darkest of all the gulls present (Ring-billed and Herring Gulls). This feature is what brought my attention to this gull.

Rump and Underparts: All white.

Tail: All white, with no tail band, indicating adult bird (probably 3rd winter).

Head: White with brown streaks and mottling, giving the bird a more "hooded" effect than the other gulls present. (winter plumage)

Crown: The head had a more rounded shape to it, than did the Ring-bill's. The head peaked further forward giving the bird a "pigeon-headed" look.

Iris: The iris was dark with pale flecks. Darker than any adult Ring-billed.

Bill: The bill was thin throughout its length with a tapered tip. It did not show the expanded tip like the Herring and Ring-billed Gulls did. The bill was about 2/3 the depth of the Ring-bill's. Bill color was gray-green from the base through 2/3 the length. At that point there was a dark, blackish smudge (incomplete band), with the remaining protion (bill tip) yellowish in color.

Legs: Gray-green.

Wing: Standing bird - The black wing tips extended about 1/3 farther beyond the tail than the Ring-billed Gulls. The tertials were more prominant. Not only did they contrast more with the mantle color, but they were broader by a good 1/3. Flight - The upper surface was blue-gray with a white leading edge and a broader white trailing edge. The primaries were mostly black, like the Ring-bill's, but the white "mirror" spots were much larger and noticable. The undersurface primaries were like the upperwing, with the remaining protion white.

Voice Description: Not heard.

Habitat: Lake Michigan shoreline and grassy loafing and preening area (baseball diamond).

Distance: From 30 ft. to 90 ft.

Optical Equipment: 10X40 Leitz and 20-45X zoom Bushnell spotting scopt.

Weather: Sky condition - overcast, Wind: ENE about 10 mph, Visibility: Good, I was at close range.

Previous Experience with Species: None.

Other Observers: Charles Sontag

Jeffrey L. Baughman

Mew Gull at Red Arrow Park in Manitowoc

Jeff Baughman alerted me to his discovery of a Common Mew Gull at the Red Arrow Park in Manitowoc. Upon my arrivel, the Gull was center focus in the scope standing 100 feet away in a group of 150 Ring-billed Gulls. The general appearance suggested the bird was a "late" 2nd year or first year adult (confusion was the result of the appearance of the bill, which was marked, and the lack of a terminal band on the tail as photographed by Jeff). The slim profile with dark primaries extending beyond the end of the tail was accentuated by the darker gray mantle. The bird was slightly smaller in comparison to the Ring-billed gulls with a smaller, rounder head and smaller bill. The iris was dark in all exposures to the lighting. The bill was puzzling, as suggested above, for the lower mandible carried a dark subterminal smudge which extended slightly into the upper mandible. The smudge on the lower mandible included an area of orange. The rest of the bill was colored the more characteristic yellow. The "hood" was well developed; mottled tawny throughout the auricular, crown, and nape areas extending to the mantle. The forehead, lore, and throat were white. The sides of the breast were also mottled. The yellow-gray legs were typical for an adult bird. The detail of the tail was not seen by this observer, but photos of the bird in flight taken by Jeff reveal a clear white tail lacking even a hint of a terminal band.

Charles Sontag

Sighting of Piebald Robin

Date: October 7, 1986

Place: Cornucopia, WI on Lake Superior

Bird flew across the road as we drove down a village street. I saw sharp, deep black and very bright white coloring and thought it was some sort of woodpecker.

The bird flew into a tree about one-half block away, above a park lawn, in which about a dozen robins were feeding on the ground.

After several seconds the bird flew down to join the robins on the ground. These robins showed no sign of surprise or rejection of the black and white bird, which behaved exactly like the robins, moving in the same, with the same posture, head movements, feeding behavior, etc. The only apparent difference was its color.

We (4 adults, with 2 binoculars) then observed it more closely. It had a wide, shiny black band across the tail and also a black band along the wing margin. The lower abdomen, but NOT the breast, was rusty red. Otherwise the bird was bright white with large splotches of bright black. Several of the observers thought they saw a crest and others thought this appearance was caused by the arrangement of black splotches on the head. In relation to the size of an average rogin, the black splotches were about one-half across.

After several minutes on the ground, this bird and several of the normal robins flew up into another tree together.

An apparently identical bird was sighted in Madison by one observer several days before, Tuesday, October 14 and then was observed on that Tuesday by Eleanor Jones, another member of MAS.

Ann Laird
1118 Risser Road
Madison, WI 53705

Plegadis Ibis near Goose Pond on Columbia County

The morning of September 30, 1986, I received a call from Dave Fallow of Madison. He and Betsy Bartelt had found an Ibis at Goose Pond in Columbia County. I drove over and arrived at about noon under overcast skies and light drizzle. I set up the 23X scope and found the bird about 150 feet away, standing along the edge of the water in a flooded cornfield with mallards, coots, and yellowlegs. The bird was preening itself with its long decurved bill. It had long legs and an all-dark, rather featureless plumage. There was no obvious rust color on the wings, so this probably was an immature bird. The poor light and distance made it impossible to see details, such as eye color, that might have helped to determine which species this was, Glossy or White-faced Ibis.

After 15 minutes or so, the increasing rain forced me to abandon observation. I returned in the evening, but all the birds in the area had disappeared, so it remains a Plegadis Ibis.

Karl Legler

Immature Purple Sandpiper along Allouez Bay on Wisconsin Point

About a dozen dunlins were feeding on the mud in Allouez Bay. Just before I left the point. I decided to view them through my scope. One bird was not flat gray like the dunlins, but warm brownish with lighter feather edging. Its legs were shorter than the dunlin's and rather bright yellow. Body size was about the same as the dunlins, but not as plump. The bill was 1/4 inch or so shorter than the average dunlin's and silghtly decurved, but the bird was too far away (150 feet or so) to see more detail. They didn't stay long in one spot, but would get up after a minute or so to fly to another "mud island". In flight I could not pick the odd one out of the group. Fortunately, it landed within 50 feet just once, staying long enough for me to get a better look. At this range, I could see that the bill was very yellow from the base to about mid-length, dark at the tip. The head, neck, and breast were light warm brownish and heavily streaked dark brown that ended rather abruptly like a Baird's or pectoral, but not as cleanly, with some light streaking onto the sides. The belly was unstreaked whitish. The top of the head was a little darker than neck and breast with a slight rusty tinge, making a light "eyebrow" noticeable. The bird suddenly looked very nervous and flew west down the shoreline giving me a brief glimpse of its upper parts in flight. It had the same pattern as a dulin with noticable white wing bars and a wide dark median line, but unlike the dunlin, the tail looked as dark as the median line. I called several people, but no one was able to relocate the bird.

Robbeye Johnson

Black-necked Stilt near Main Dike Road in Horicon National Wildlife Refuge

I was standing atop my car scoping a large pool on the north side of the main dike road, near the western terminus of the road, in Horicon National Wildlife Refuge when I saw a Black-necked Stilt at the mud/water edge about 200 meters away. After convincing myself that it was unequivocally a Black-necked Stilt, I asked my wife Ann to look at the bird and confirm that it was a Black-necked Stilt. We watched the bird for 53 minutes, and it was very active the whole time. Mostly, it walked at a steady rate right at the water's edge parallel to the shoreline, picking at items in front and to the side once every 1-3 steps. It occasionally spread it wings. Every 3 minutes or so it flew a short distance to a new foraging spot. While feeding, it always picked at surface items rather than probing, and it stayed right along the edge where the shallow water met the mud. Early in the observation I dictated a complete description of the bird to Ann, and while she watched the bird, I drew a picture of it showing the distribution of color on it. The bird was 150 to 250 meters from us. We used a 45X spotting scope, making the view very good from 200 meters or less. The bird nearly filled the field of view at 150 meters, and the lighting was perfect. Here is my field description, made without consuulting a field guide, of the actual bird as I saw it:

Size: Body about the size of Greater Yellowlegs, but legs extremely long, much longer than a Greater Yellowlegs. Bill long, thin, and sharp, about 1½X length of the head.

Color: When standing, the entire upperparts were coal black, and the underparts were pure white (not visible except when the bird was flying). Legs were bright red, bill was black. The black upperparts extended partly down the side of the neck about halfway up the neck and the black on the head encircled the eye. Within this black cap there was a white eyebrow. The forehead was white.

About 9:45 a.m. the stilt moved further from us where we could no longer make useful observations of it. Ann and I left the area with the intention of reporting the sighting at the refuge office, but we didn't need to. We ran into Darrell Haugen, an assistant refuge manager, on our way out of the area and told him about it. Darrell and Bill Thorne, the other assistant refuge manager, had been seeing 2 Black-necked
Stilts well into the marsh, out of public view, for the last 3 weeks, he said. He said they had photographed the stilts, but had not gotten the film back. Our bird must have been one of these two stilts. Haugen and Thorne's sightings and ID's were totally independent of mine. I had no idea there was a Black-necked Stilt lurking out there.

My wife Ann Swengel corroborated all of the points of my description of the Black-necked Stilt to assure my objectivity. Both of us have seen the species before.

We went back to the area about 1:00 p.m. in hopes the bird would be close enough to photograph. I scoped the entire area and did not find the bird, so we left.

Scott R. Swengel

MEMORIAL FUND

A new fund has been established at the University of Wisconsin-Stevens Point to support special projects and research in the field of ornithology.

It is a memorial to Arol Epple, a longtime biology professor on campus and a leader in organizations devoted to the protection of birds. He died May 29 in a Madison hospital.

Tax deductible contributions to the Arol Epple Ornithology Fund may be mailed to the University of Wisconsin-Stevens Point Foundation, Old Main Building, Stevens Point, Wis., 54481.

Even though the university has the largest enrollment in the United States in undergraduate natural resources courses, it did not, until now, have a fund to encourage specific on-going projects related to birds.

Epple, 77, a native of St. Paul, Minn., had a 40-year career in education. He taught at high schools in Berlin, Antigo and Beloit before joining the faculty at UW-SP in 1946. He spent 26 years on campus before retiring and being granted the honorary title of professor emeritus. Many graduates of the natural resources program at the university received part of the biology instruction from him.

Epple held two degrees from UW-Madison.

In addition to being active in education and teacher organizations, he was chairman of the UW-SP Biology Department in 1965 to 1966. Also, he and his wife, Doris, were longtime advisers for the Wesley Foundation, an organization of Methodist college students.

In the community, he was an officer of the Mental Health Association and a volunteer coordinator of Red Cross Bloodmobiles.

Photography, beekeeping and bird banding were his hobbies. However, he also had an academic interest in birds, serving additionally as Wisconsin coordinator from 1964 to 1972 for the Cornell University Nest Record Study. He published several papers in professional journals on related research. A highlight of this involvement was his service in 1965 and 1966 as president of the Wisconsin Society for Ornithology.

During their retirement, Mr. and Mrs. Epple spent summers at a college overlooking Spring Lake in Minocqua and winters in Rockport, Texas. They returned to Stevens Point in 1980. She died in September of 1986, three weeks after the couple's golden wedding anniversary. He moved to an apartment in Janesville in December of 1986.

His survivors include two daughters, Mrs. Burton (Margaret) Erickson, Xenia, Ohio, and Mrs. Gary (Barbara) Ertl, Janesville; four grandchildren, and one brother, Lewis Epple, Mesa, Ariz.

Notes of Interest from the Banding Station

By C.A. Kemper

On October 12, 1987 a Hairy Woodpecker *(Picoides villosus)* (Linnaeus), age uncertain, sex female was captured, photographed (Fig. 1) banded and released in Hallie Township, Chippewa County. Rhinchogyroposis was described and discussed in a previous article by the author (Kemper 1984). This is the third species so far in which this deformity is documented.

Also of interest. I was quite surprised to capture on October 10, 1987 at my banding station, the same location mentioned above, a Dark-eyed Junco (White-winged) *(Junco hyemalis aikeni)*. In the past 32 years I have banded about 4000 "Juncos". This was the first "White-winged" I ever encountered and to my knowledge the first documented or reported specimen of this race in Wisconsin. According to Chandler Robbins (1983) this race, while common in the Black Hills, has not been recorded east of the Great Plains. Peterson (1980) says it has "been reported in the East but needs specimen verification". But Roberts reported in 1932 "that the Juncos in Minnesota present a great diversity especially in the fall... very rarely there may be two narrow white wing-bars."

On November 12, 1987, I captured, banded and photographed a second "White-winged" type Junco. Lack of space precludes publication of this photograph. Sam Robbins (1987) has said he knows of no previously published Wisconsin records.

LITERATURE CITED

Kemper, C.A. 1984. Rhynchogyroposis. **Passenger Pigeon:** 46:108.

Robbins, Brun, Zim and Singer, 1983. A Guide to Field Identification. **Birds of North America,** Golden Press: Page 334.

Peterson, R.T., 1980. A Field Guide to the Birds East of the Rockies, **Houghton Mifflin Co.:** P. 266.

Roberts, T.S., 1932. The Birds of Minnesota. **The University of Minnesota Press,** Vol. II, p. 710.

Robbins, S. 1987. Personal Communication.

P.O. Box 818
Chippewa Falls, WI 54729

Figure 1. Female Hairy Woodpecker with Rhincogyroposis.

White-winged Junco photographed October 10, 1987, Hallie Township, Chippewa County, Wisconsin.

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