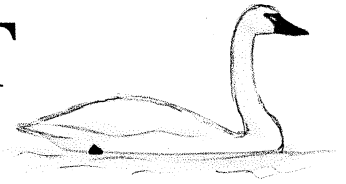


BROCKWAY LOOKOUT

Copper Country Audubon Newsletter, Volume 27, Number 2, Sep/Oct 2020



Trumpeter Swans in the Keweenaw

...by Joseph Youngman

After watching more and more Trumpeter Swans seeming to move into our area, I decided this spring that it was time someone took an intensive look at the increasing population of Trumpeter Swans in the Keweenaw. I figured it might be me that should do it. So I did. There were about a dozen people who helpfully tipped me off to swans in various locations. Thank you!

Through the spring and summer, I've checked and rechecked 57 different ponds and small lakes in the three-county "Keweenaw" area. Those counties are Baraga, Houghton and Keweenaw. I located 28 pairs of swans, and of those, 19 pairs seemed to start nesting, and of those, 15 pairs had young. At one time this June there were at least 64 Trumpeter cygnets floating on our waters. Sorry to say that by 23 August the count of still-living youngsters was down to 18, spread out over six sites.

Older readers will remember that 20 years ago we had ZERO Trumpeter Swans in the Keweenaw. They just started moving in to our area about 20 years ago down in Baraga Co. and southern Houghton Co. Trumpeters had been introduced in Wisconsin and parts of Michigan, and the Keweenaw Bay Tribe introduced Trumpeters in Baraga Co. several years ago. It seems that the success of those introductions led to Trumpeters moving up to nest in the Keweenaw.

In spring you might see groups of Tundra Swans passing overhead in the Keweenaw, or sitting on a lake in migration, but they do not nest here. If you see a swan in summer around here it is likely a Trumpeter Swan. Tundra Swans can be difficult to tell from Trumpeter Swans, but the Trumpeter is significantly bigger than the Tundra. Even if you see them side by side it isn't easy to tell. The male Trumpeter Swan is the largest bird in eastern North America, averaging 23 pounds, whereas the Tundra Swan averages only 14 pounds. The Mute Swan, an introduced species with a bright orange bill, is about as big as a Trumpeter Swan. A few used to hang around at the head of the Keweenaw Bay for a few years but none have been there in awhile.

In the early 1900's Trumpeter Swans were thought by most experts to be very near extinction. And there are zero mentions of Trumpeters nesting in Michigan. But the history of Trumpeters in the Keweenaw is a little, ah . . . unsettled. According to Laurence Binford's master work – *Birds of the Keweenaw Peninsula*: "Trumpeters have never nested in the Keweenaw". And the authoritative *The Birds of Michigan*, edited by McPeck and Adams 1994, says "Unfortunately there is no direct evidence to verify that Trumpeter Swans ever bred in Michigan."

The problem goes way back. For almost a year in 1856 – 57, a Dr. S. Kneeland lived in the Keweenaw and wrote up a paper for the Boston Society of Natural History about the birds of the Keweenaw. He mentions Tundra Swans migrating through but never mentions Trumpeters. But it's quite possible, and I'd say even likely, that Trumpeters did nest in the Keweenaw before the white men came. The main problem is the massive slaughter of swans (both Tundra and Trumpeter) that had been taking place since the late 1700's. In the years between 1807 to 1822 records from the Hudson's Bay Company record up to 2,400 swan skins a year being shipped out. The swans were mainly hunted for their down but the quills were favored for writing. Apparently J.J. Audubon preferred Trumpeter quills for fine detail work.

Quite a few academics have been pondering the original range of the Trumpeter swan in the eastern part of the continent and have done lots of work searching through the notes and journals of early explorers and settlers. The Anishinabe and other tribes living in the UP surely knew whether there were Trumpeters here or not but they didn't leave any written history. The earliest European explorers were surely on the scene before the tremendous reduction in swan populations but they weren't keen on giving dates and locations of specific birds in any detail. The records of early settlers or visitors like Kneeland in 1856 might seem pretty far back in time for us in 2020, but since the fur trade was killing off swans in large numbers by 1800 or so - 1856 is kinda too late.

Those academics have dug up solid evidence showing that Trumpeters bred in Minnesota only 45 miles west of Duluth, and fairly strong evidence that they nested in Wisconsin. There is a quote I love from one article speaking to the lack of evidence found after their exhaustive search of old records and documents: ". . . its meagerness suggests that the Trumpeter Swan was exterminated early in certain areas or that only a small amount of effort was made to penetrate its breeding grounds in the treacherous marshes and swamps." That makes sense to me after my extensive efforts this

summer to locate and monitor the Trumpeters that I've found. While there were a couple easy pairs like the one at Swedetown Marsh, most were back in the bush and some were very hard to get to. And most pairs of swans would disappear to the vegetation soon after I spotted them. It is pretty easy to overlook them.

So back to Binford, in an article in *Michigan Birds and Natural History* in the fall of 2009 he wrote, the status of Trumpeters in the Keweenaw “. . . may become occasional, even regular. Increasing Keweenaw population should be monitored and documented.” I hear ya Laurie. They sure are regular now.

A pair has been nesting along Forest Highway 16 for about 10 years now (technically it's about ¼ mile inside of Ontonagon Co.). A pair has been nesting up at Meadow Lake in Keweenaw Co. for three years. A pair has been nesting at Thayer Lake, east of Mohawk for several years. I've had a close eye on the MDNR lands at Arnheim (south of Chassell) since 1996 and the first year I had Trumpeters there was 2007. Trumpeters nested there from 2013 through 2018. Construction disturbance kept them from nesting in 2019. Swans showed up in both 2019 and 2020 but they didn't attempt to nest in either year.

As near as I can tell it takes a pair of swans a couple years to nest on a particular pond. They'll be present all spring and summer but not try to nest for at least one year. Then after that trial period they seem to nest every year. I watched that happen at Meadow Lake in Keweenaw Co. over the years from 2016 through 2020. In 2016 there was just one swan -- but it acted real spooky. In 2017 and 2018 there was a pair of swans -- and they acted spooky, too -- but they didn't seem to try to nest. In 2019 and 2020 they nested successfully both years.

I have never witnessed predation on the cygnets but I've read that turtles, owls and coyotes are known predators. One of my witnesses told me that he's seen Bald Eagles grabbing young Canada Geese, so it's certainly possible that our booming eagle population might be thinning out the swans. Fortunately, swans are long-lived so they can afford to lose many or most of their young each year and still over time produce enough young to more than replace themselves. From my extensive efforts this year looking at the habitats the swans are nesting in and study of google earth images of our many ponds and lakes, I think swans are approaching the carrying capacity of our landscape. It's great to see them.

At last I'll include some information that shows how imperfect my swan survey has been this year. In May I had checked one wetland in Herman in Baraga Co. for swans and found none. In early June I received a photo of 4 obvious cygnets huddled on the pavement of a road in Herman. I don't know where they came from or where they went. Then today, as I write on 24 August, I got an email from observers who just saw a pair of swans and four cygnets on a nice marsh near Otter Lake. I had checked that marsh out about four times since early May and had seen nothing!

Here is a map of Trumpeter range produced in 1960 by Winston Banko, a scientist with the USFWS.

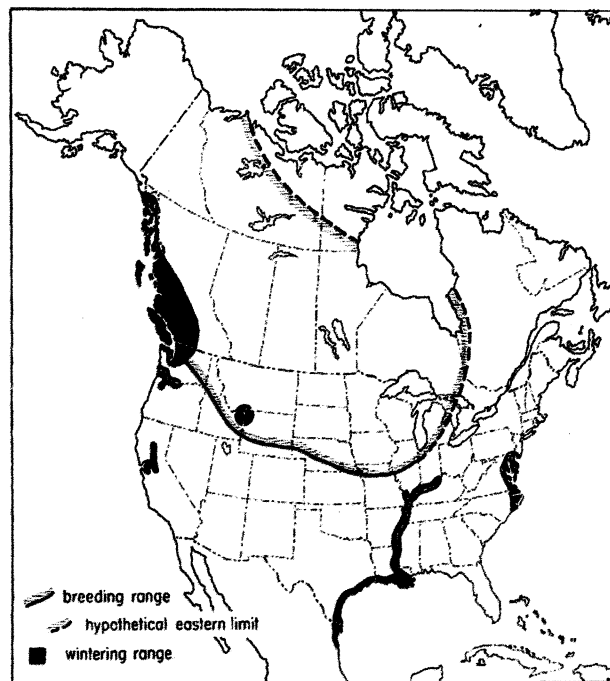


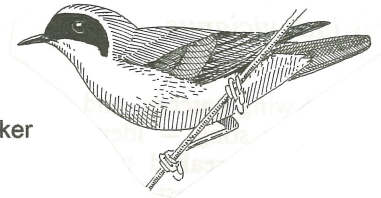
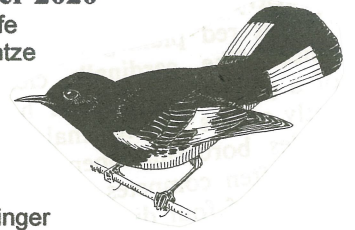
FIGURE 3.—Former breeding and wintering range, trumpeter swan.

Keweenaw Motus Bird Tracking Update

We've made progress on our Motus program. We've now gotten both of our two Motus stations up and running. We established the first at the Calumet Sewage ponds last fall and this year we added a station up at Phoenix on the cliffs there. The owners of an existing small observation tower on the cliff graciously allowed us to put three Motus antennas there this May. We had hoped to have Drs. Flaspohler and Wolfe of MTU do some warbler banding this May with Motus type radio tags but Covid took that off the table for this year. We expect that by next May they will place bands on about 50 warblers and we'll learn something about their movement through the Keweenaw. In June I sent in the data from our two Motus receivers to Motus headquarters in Ontario. I wish I could say that our receivers had a lot of "hits" from migrating birds. So far, our receivers have come up empty. In early November I'll download all the fall data from our stations, perhaps we'll get some hits then. -Joseph Youngman

COPPER COUNTRY BIRD SIGHTINGS: Spring and Summer 2020

Spotted Towhee – 27 March, Agate Street in Houghton, a western bird that is very rare here. Jared Wolfe
Greater White-fronted Geese – 4 April, three birds with Canada Geese, Sturgeon River Road. Walt Kuntze
Mourning Dove – 5 April, on nest in Chassell, early breeding record. Joseph Youngman
Spruce Grouse – 12 April, six individuals on Baraga Plains where they breed. Lisa Nelson
Yellow-headed Blackbird – 28 April to 29 May, male on Sturgeon River Road. Walt Kuntze
American White Pelicans – 5 May, four on Sturgeon River Road. Walt Kuntze
Bonaparte's Gulls – flock along shoreline of Portage Lake near Pt. Mills. Valorie Troesch
Loggerhead Shrike – 9-15 May, Baraga Sewage lagoons, rare bird, seen by several people. Dave Fehringer
Western Tanager – 8 May, Little Traverse Bay. Bruce Wolck, also seen 12 May by Tony Lammers.
Marbled Godwit – 12 May, L'Anse. Terry Dreves
Black Terns – 14 May, 40 foraging at Arnheim MDNR ponds. Joseph Youngman
Whimbrel – 15 May, Arnheim MDNR ponds. Skye Haas & Gary Palmer
Marbled Godwit – 15 May, Arnheim MDNR ponds. Skye Haas & Gary Palmer
Wilson's Phalaropes – 15 May, two females, Arnheim MDNR ponds. Skye Haas & Gary Palmer
White-faced Ibis – 17 May, Arnheim MDNR ponds, probably first western U.P. record. Damon Haan & Lisa Nelson
Bobolink – 21 May, Herman, along with Oriole, Bluebirds, Tree Swallows, Purple Finches. Catherine Andrews
White-rumped Sandpiper – 27 May, Eagle River. Tim Baerwald
Green Heron – 27 May, Copper Harbor. Tim Baerwald
Northern Mockingbirds – 27 May, Copper Harbor, two singing birds. Tim Baerwald
Red-headed Woodpecker – 31 May, Eagle River. Lynne Crob
Red-headed Woodpecker – 31 May, Deer Lake in Keweenaw County. Joseph Youngman
Yellow Hairy Woodpecker – 1 June, male north of Alston, color could be due to carotenism. Doug Welker
Ross Goose/Canada Goose hybrid – 1 June, seven miles above Ahmeek. Nancy Auer
Lark Sparrow – 3 June, Agate Harbor, a western bird. Nancy Leonard
Lark Sparrow – 7 June, Bruce Crossing, a western bird. Damon Haan
Yellow Downy Woodpecker – 7 June, male, 6 miles SE of Chassell. Color could be due to carotenism. Lynn Murphy
Northern Mockingbirds – 10 June, two birds on Sturgeon River Road. Walt Kuntze
Marsh Wren – 14 June, singing at Arnheim MDNR ponds. Joseph Youngman
Brewster's Warbler – 15 June, Arnheim, hybrid of Golden-winged x Blue-winged Warblers. Joseph Youngman
Dickcissels – 25 June, two singing in field just east of Superior Location south of Houghton. Terry Dreves
Bobolink – 17 July, male in clump of Mtn. ash and dogwood, Wescoat's field, Copper Harbor. Nancy Leonard
Marsh Wren – 11 July, singing at pond of Wescoat field, Copper Harbor. Nancy Leonard
White-winged Crossbills – 4 August, Eagle Harbor, 30-40 birds feeding in spruce trees. Elizabeth Ward
White-winged Scoters – 29 August, early date, Eagle River. Joseph Youngman
Harris' Sparrows – 30 September, two birds in Agate Harbor. Nancy Leonard
Yellow-billed Cuckoo – 27 September, Baraga Plains along road. (Black-billed is our usual one). Joseph Youngman
Yellow-billed Cuckoo – 30 September, McLain State Park. David Flaspohler
American Coots – 30 September, five in Calumet holding ponds & 15 in Lake Linden ponds. Bruce MacDonald



Be Bird-Informed! Subscribe to the email bird alert list! To join this list, go to groups.google.com and search for Copper Country Birding. When it comes up, click on it, and a message will be displayed that allows you to **Apply for Membership**. Click on that, and I'll get a request to add you to the group. If any problems contact list manager Ted Soldan, tjsold@up.net.

Brockway Mountain Hawk Watch 2020 Season The Brockway Mountain Hawk Watch is the principal project of the Keweenaw Bird Research Group funded in part by Copper Country Audubon. The 2020 season was the lowest count on record with only 4,566 raptors seen passing eastbound over the mountain from March 15 to June 15. Tim Baerwald was counter for his fourth season. Many Copper Country Audubon members helped. You can see the daily totals and miscellaneous comments on the Hawk Watch web site <http://hawkcount.org>.

NEW AVIARY for UP WILDLIFE REHABILITATION in the KEWEENAW ...by Michelle Anderson

What a whirlwind of a bird rehab season! Lots of exciting things happened this season that enabled us to provide even better care for local wild birds in need. My husband and I decided to stay in the area once he retires from the Coast Guard next year. We bought an updated farmhouse complete with a large barn with electric, part of which functions as the bird nursery/hospital along with 10 peaceful acres with wetlands, plenty of fruit trees, all sorts of bugs and great habitat for the bird patients. We were able to construct a beautiful aviary on our property. Huge thanks to Copper Country Audubon for donating \$1000, along with public donations and some money from our general fund.

The aviary, near Boston, is away from the house in a very quiet setting surrounded by native trees, shrubs and grasses. It is predator-proof, using hardware cloth on the outside and underneath, and lined on the inside with screen to protect

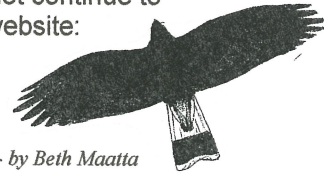
feathers. The aviary is 32 ft long x 12 ft wide x 12 ft high, large enough to rehab hummingbird-sized birds up to cranes and everything in between, except for birds of prey. It was a busier than usual season due to more folks being home due to covid and noticing birds in trouble they normally would not have had time to observe. Several birds called the new aviary a temporary home before release, including blue jays, cedar waxwings, robins and herring gulls. It was nice to not have to transfer larger birds out of the area for rehab because we now have an aviary large enough to accommodate them. We also were able to get \$500 donated by the public to purchase a much-needed incubator which was very helpful in keeping young hatchlings warm and at the proper humidity which is paramount for proper feather growth.

We started the season with a Yellow-bellied Sapsucker in early spring that ran into a bike, and were able to get him back to the wild. It was great to tap a birch tree on our property to provide him with fresh sap while he recovered. A couple Downy Woodpeckers came in during that same period and were released. Then came an orphaned Ruffed Grouse, along with a couple orphaned Canada Geese that we were able to place into families of similar-aged goslings. Next was the onslaught of orphaned, injured and ill baby songbirds! The largest numbers were Cedar Waxwings. The big windstorm we had over the summer was right when the majority of waxwings youngsters were nestlings in trees that were blown out of nests. We also cared for Robins, Chipping Sparrows, Song Sparrows, Red-eyed Vireos, Eastern Phoebes, a Cliff Swallow and even a couple older nestling Northern Flickers. We were able to educate the public and prevent a ton of kidnappings of healthy fledglings, and even coached a few folks how to re-nest nestlings that had been blown out of trees! The best parents are wild ones so we try to keep the babies with the parents as long as they are healthy, uninjured, and still being cared for adequately by the parents.

After the summer baby season, fall has brought us quite a few window strikes. A Northern Flicker, Tennessee Warblers, Hermit and Grey-cheeked Thrush were among the victims. We were able to get the majority of the window collision cases back on their migratory journey after some rest, anti-inflammatory medication and plenty of tasty mealworms. So far in 2020 over 80 birds have come through our doors for rehab. A very busy season compounded by working on building the aviary along with a little virus buzzing around.

Future plans include acquiring my own state and federal permits now that we have decided to stay in the area (currently sub-permitted as a wild bird rehabilitator through Chocoley Raptor Center). I also plan to get a couple interns to help with the busy baby bird season next season. Huge thanks to CCA for your continued support! We could not continue to provide the high standard of care to our local wildlife without our communities help. Please see our website:

<https://upwildlife1.wixsite.com/website>



Local Updates in the World of Raptor Rehabilitating --- by Beth Maatta

There have been a few changes locally in the past year, with more to come. Last October, I attended the University of Minnesota Raptor Center's Care and Management of Captive Raptors course in Minneapolis. The Chocoley Raptor Center near Marquette paid for all expenses. The knowledge and expertise of the staff there was phenomenal. The education gained and contacts made were of great value as I continue my journey as a raptor rehabilitator. The Chocoley Raptor Center has indicated their plans to retire from rehabbing with the timeline being "sooner rather than later." The goal in sending me to the course in Minnesota was so that I would gain the knowledge and expertise to fill that void in the Western UP when they retire.

The next step in preparing for that eventuality came this spring when I received my USFWS federal permit for rehabilitating raptors. We are no longer working as a sub-permittee under the Chocoley Raptor Center. Some of the raptors rehabilitated this year include a Merlin, a Broad-Winged Hawk, a Red-Tailed Hawk and a leucistic Turkey Vulture!

In order to be able to fully rehabilitate raptors that commonly require care in our area, a flight enclosure large enough to accommodate them is needed. The minimum standards require a flight enclosure for raptors as large as Great-Horned Owls, Barred Owls, and Red-Tailed Hawks are 10 ft x 50 ft x 12 ft (W x L x H). It must be noted that these are the *minimum* standards. A better option would be an enclosure that is 20 ft x 50 ft x 12 ft. In an ideal world, the width would be 30 feet wide, with the option to divide the space for more than one bird.

Cost is definitely an issue. This will be our most expensive project to date. The weather, specifically the snow load, for the area is a concerning factor in the type of structure. While consulting with Curtiss Owens, a contractor, it was decided that a metal building would be the best option. The sides would consist of metal and a translucent material to allow for light. The inside walls would be wood slatted to protect feathers, and the floor would be sloped concrete with pea gravel for easier cleaning/disinfecting. We will be starting a fundraising campaign soon for this endeavor. If funding is achieved, the work on this enclosure would start in the spring of 2021

With the Chocoley Raptor Center retiring in the near future, and rehabber Phyllis Carlson from Iron Mountain retiring this year, soon there will be just one permitted raptor rehabber here in the Upper Peninsula! Please contact me at UP Wildlife Rehabilitation, bmmaatta@mtu.edu, (906) 370-3825. See our website: <https://upwildlife1.wixsite.com/website>.

THANK YOU TO ALL DONORS AND MEMBERS OF COPPER COUNTRY AUDUBON!

New Life Member: Bob Dawson of Misery Bay. A generous donation was made in memory of CCA member and life-long birder Gary Worrall by Barb Worrall of Chassell. Thank you!



Great Horned Owl and Peregrine Falcon Nest Box Updates

No work was done this year on the Portage Lake Lift Bridge Peregrine Falcon nest boxes as those cameras seem to be working okay. The only thing I would like to improve on is to allow scrolling between the two bridge boxes when viewed on a mobile device. When viewed on a PC that is possible, but not on mobile devices now. Our work around was to put a separate button for the south tower box on the coppercountryaudubon.org web site. So, if you find you cannot scroll from one box to the other when on a mobile device that is why.

We installed a new camera on the Jutila Great Horned Owl box in May of this year. That replaced a camera that had moisture inside the lens which made for very poor viewing of the owls last winter. The new camera is the same make and model as the old one, so I hope it remains working and moisture-free for this coming winter and I hope the owls cooperate. Copper Country Audubon partners with Finlandia University to maintain the nest box and camera, and we recently donated \$1400 to Finlandia for a new electrical connection to keep the camera functioning.

In September Dana R., Joe Y. and I cleaned out the Jutila owl box, which is nine stories up on the roof of the old hospital overlooking the Portage Canal. We removed close to two, five-gallon pails of rodent bones, fur, feathers and gravel. With safety rope attached, Joe reached into the box through the top access cover and loosened the old material with a small hand rake and sucked it out with a shop vac. We put a layer of new pea gravel in the box. Ornithologist David Flaspohler is now the proud owner of the debris that was in the nest box, and may have his students catalog the bones to determine the owls' diet, and examine the debris for parasites.

You can view the nest boxes on the home page of the coppercountryaudubon.org web site, and contribute to help keep the cams going on the "About Us" page. Thanks! ---Phil Quenzi

2020 Keweenaw Peregrine Falcon Report



Besides our Lift Bridge falcons in Houghton Co., there are, to the best of our knowledge, four cliff nests of falcons in Keweenaw Co. For the Keweenaw Co. nests: I know almost nothing about the two nests out at Isle Royale for this year. I heard one of those nests failed. The park service is rather tight-lipped about those nests. The cliff nests at Bare Bluff and Cliff Drive seemed to do quite well this year. The Bare Bluff pair raised two healthy-looking youngsters. The last known report was from July 9th and the young birds looked like they'd fledge soon. The Cliff Drive pair raised three young and they fledged on July 12. I got photos of them near the nest. I next checked on them on July 21st and all the Peregrines were gone. That seemed odd – usually the youngsters will stay in the area for a couple weeks and the adults stay until late September. I've been back to the area three more times but did not detect any Peregrines.

The Lift Bridge pair returned by the 19th of March. The same female and the same male returned (as told by bands). They had their first egg by the 8th of April, which was the earliest date so far. The eggs started to hatch by the 17th of May and the four youngsters began to fly on the 26th of June. But that first flight was an accident. I and a few others were watching our CCA webcam from home when one of the immatures tried to jump from the outer perch back into the nest box. It didn't make it and fell. Watching from home we had no idea of the outcome. I was able to head to town immediately, and within 20 minutes was on the scene. I spotted the immature safe and sound on the south tower. A day or two later one of the remaining three immatures also took its first flight by falling off the box. In the end they all turned out fine. The immatures will leave the nest area before the adults do and I believe three immatures left by mid-August. As recently as the 22nd of August I saw one of the immatures and both adults are still around. Those adults have a history of heading south in the first week of October. ---Joseph Youngman

A Curious Note! Deer Steals Juice from Humming-Bird Feeder in Houghton

Copper Country Audubon member, Beth Patterson, who lives in Houghton reported in August that she finally solved the mystery of her humming-bird feeder. Every morning her humming-bird feeder would be empty but the feeder would be undamaged. One early morning in the dim light she watched a white-tailed deer walk up to the feeder and tip it to drain it and drink the juice.

More Films Applied to Windows at MTU to Prevent Bird Strikes

From the outside, birds see a reflection of the outdoors in a window so they try to fly right through. Sadly, many birds die. It is estimated that windows kill nearly a billion birds in the US every year. This the leading cause of bird mortality, the next being cats, which are estimated to kill nearly half a billion birds annually. This is a terrible loss of birds, and both factors are indirectly the result of humans.

Two years ago a concerned grad student put Bird's Eye View® window films on 40 of the worst windows on the MTU Dow Building, as determined by Drew Meyer in his study of bird kills due to windows on the MTU campus. Copper Country Audubon donated the window films. Due to a noticeable number of birds striking additional windows on the Dow Building this fall, another student wants to add window films to more culprit windows. With help from the building attendant, it is estimated that at least another 24 windows would benefit by having films on them to prevent bird strikes.

How effective these films are at preventing bird strikes depends a lot on location, lighting, background, etc. They are supposed to reflect certain wavelengths of UV light that birds see but we don't, but under what lighting conditions is not known. From experience at my home on large picture windows where I have installed the window films, I know they help. I estimate that the films have reduced bird strikes on some windows by 80%, but less so on others. On the west side, where I have a mountain ash tree ten feet away covered with bright red berries, I lost a Swainson's Thrush this late summer (9/16/20), even though it is not a particularly large window and there is a six-inch window film right in the middle of the pane. This is one of the birds, along with the Veery (which is also a thrush) that has a beautiful flute-like song in the deep woods in summer. On some of my windows I suspect bird strikes have only been modestly reduced.

There are more effective methods to prevent bird strikes on windows, like tapes and ribbons in a grid hanging on the outside, but which also involve more work to install and which are more obtrusive. Birds-eye-view window films are simple and easy to install from the inside -- and anything is better than nothing. The window films certainly work better than raptor silhouettes that I used to have on my windows.

This fall also, at the MTU Library, Copper Country Audubon installed Bird's Eye View window films on 16 windows where distraught students reported many bird strikes and dead birds below the windows. The windows face east above a court yard where students study. Flower bushes and shrubbery there make good bird habitat. On September 30, when installing the films, a Lincoln's Sparrow was found dead. This is one of our inconspicuous brown-streaked sparrows similar to the slightly larger and more common Song Sparrow. Lincoln Sparrows mostly go farther north to nest, but some breed around here also.

Copper Country Audubon has been working with the campus and the community to help prevent bird strikes, and thus reduce the number of songbirds killed every year locally. Bird's Eye View window films were installed on problem windows in the Dow Building, the Forestry Building, the MTU Library and the Postage Lake District Library in Houghton. Copper Country Audubon donates these window films. ---D. Richter



NO CELL PHONE TOWER ON BROCKWAY MOUNTAIN!

Several years ago a cell phone tower was proposed on the east end of Brockway Mountain not far from the Copper Harbor overlook. Copper Country Audubon and others provided numerous comments to the tower company and FCC, essentially saying it was a bad place for a tower for several reasons, not only because it could be an impediment to birds. Now the tower is planned across the valley accessible from US 41 near the Keweenaw Mtn. Lodge. It will be a 263-foot self-supporting tower with no guy wires. This is a far better location than on Brockway Mountain. Copper Country Audubon also provided comments regarding the new location of the tower.

The entire Keweenaw Peninsula and especially the Brockway Mountain corridor is a historically significant migration flyway. While all towers present a hazard to birds and bats, and impact the aesthetic viewshed, this new site is far preferable to a site on Brockway Mountain itself, where the main concentration of migrating soaring birds occurs. Even though the new tower site is considerably lower than Brockway Mountain, the tower will still be high enough to be a hazard to birds in certain weather conditions. A self-supporting structure with no guy wires is a positive feature. Since the tower will be far taller than any trees, the retention of as much forest as possible around the tower was encouraged to maintain bird habitat. Copper Country Audubon remains concerned about the tower project and its potential impact on wildlife in the area.

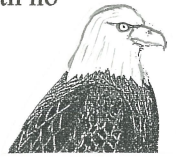


Bird Researcher Ellie Roark Submits Point Abbaye Data for Scientific Publication



With funding and logistical help from the Keweenaw Land Trust and Copper Country Audubon, ornithologist Ellie Roark conducted two years of spring bird surveys at Point Abbaye in Baraga County, north of L'Anse in 2018 and 2019. Her project objective was to determine if counts taken from audio recorders can be as effective as the normal, labor-intensive point counts on transects. The study was conducted on a KLT preserve known as Point of View. Congratulations Ellie! Her paper is titled, *Monitoring Bird Diversity in Migration Stopover Habitat: assessing the value of extended duration audio recording*. The following is taken from the abstract of the paper.

Because birds are frequently detected by sound, automated recording units (ARUs) are now an established tool in addition to in-person observations for monitoring the status and trends of bird populations. ARUs have been evaluated and applied during breeding seasons, and to monitor the nocturnal flight calls of migrating birds. However, birds behave differently during migration stopover than during the breeding season. Here we present a method for using ARUs to monitor land birds in migration stopover habitat. We conducted in-person point counts next to continuously recording ARUs, and compared estimates of the number of species detected and focal species relative abundance from point counts and ARUs. ARUs are an effective way to track migration timing and intensity in remote or seasonally inaccessible migration stopover habitats. Our methods can be immediately applied by researchers with the skills to conduct point counts, with no additional expertise necessary in automated species identification algorithms.



The DEMISE, SUCCESS and DEATH of BALD EAGLES

At one time, due to the use of pesticides, particularly DDT, Bald Eagles were reduced to fewer than 70 breeding pairs in all of Michigan. Now there are hundreds because the pesticides that softened their eggshells were banned. What kills most Bald Eagles now? -- vehicles that hit the birds while scavenging road kills, mostly deer, on the highways. The US Fish and Wildlife Service and the Michigan DNR studied 1,490 eagles that were found dead over 32 years (1986 to 2017). Thirty-six percent (532 eagles) were killed on highways. The next worst cause of death (12% or 176 eagles) was due to lead poisoning from eating deer (and likely other animals) shot but not recovered by hunters.

Note: Near Escanaba this summer a Bald Eagle attacked and downed a DNR drone that was mapping shoreline and water levels. The eagle ripped off a propeller on the drone and it crashed into Lake Michigan. It was found in four feet of water. The drone cost \$950. This and the study above came from *Michigan Outdoor News*, August 28, 2020.

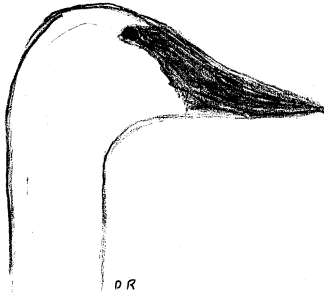
New Nature Sanctuary at Lake Glazon in Keweenaw County

Newly-acquired by the Keweenaw Land Trust is the Lake Glazon Nature Area in Keweenaw County. The preserve is about 26 acres with 1,100 feet of Lake Superior shoreline and the marshy west end of small Lake Glazon. It is located on the north shore of the Keweenaw Peninsula between Great Sand Bay and Dan's Point. The preserve has exposed Copper Harbor Conglomerate bedrock ridges on Lake Superior, and wooded wetlands and boreal forests that provide refuge for native wildlife and migratory birds. The property touches corners with the Brockway Mountain Drive Nature Sanctuary which we steward with our partner Michigan Audubon. Copper Country Audubon donated \$1,000 to this preserve. This nature area has year-round access from Hwy M-26 and is near other protected lands also open for low-impact public use. Stop there sometime on your way to Copper Harbor. Enjoy the natural surroundings and the feeling knowing you helped preserve this sanctuary, too.

Saturday, December 19 - All Day! Copper Country Audubon Christmas Bird Count: Join us and help count birds within our 15-mile diameter circle. Free and open to all! Let's hope for some open water and good weather! Also, count week is from Dec. 16 thru Dec. 22, so keep looking for unusual birds just before and just after our count date, **we do include count week birds!** Contact Nancy Auer, 337-2690 home or email naauer@mtu.edu.

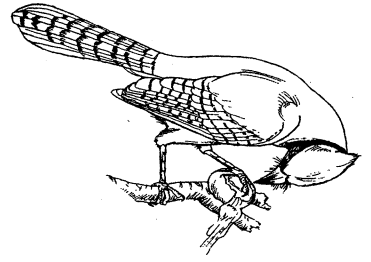
THERE WILL BE AN OUTDOOR PRE-COUNT MEETING to assign areas and leaders on **THURSDAY December 17th at 12:15 pm in the MTU Mineral Museum** parking lot on Sharon Ave. - I'll be obvious. If I don't hear from folks by the 16th I'll be calling you for help. These birds want to be counted!

Saturday, December 19 - 5:00 PM. Christmas Bird Count Compilation. NO GATHERING this year. Immediately after count make sure your data gets to area leader and me. Call in or email your sightings by contacting Nancy Auer, 337-2690 home, or email naauer@mtu.edu. I will share with team first and then post to Copper Country Birding lists but it may take a couple of days as results straggle in. Thanks for your patience this year. Looks like solo or family birding only. -N.A.



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Steve Karpiak
Phil Quenzi



A quote from our founder: *"I think a person will enjoy life a lot more if he or she can put a name to most of the birds that are met with."* – **Art Weaver, in *Birds of Michigan's Copper Country, 2000.***

Injured Birds?

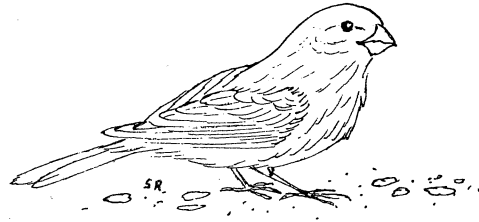
UP Wildlife Rehabilitation-Keweenaw

Beth Maatta (906) 370-3825

Michelle Anderson (216) 577-2989

Or Contact Michigan DNR

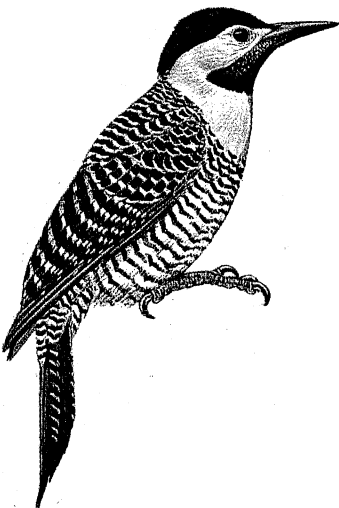
Baraga 906-353-6651



Is your Renewal Due? After your name on the mailing label is the date your membership is due; your last donation was sent one year prior to this date. Sorry for any mistakes; please let us know! Life members and courtesy mailings have no date, but we thank you for your continued support! Thanks to everyone for your support for Copper Country Audubon!

Copper Country Audubon Membership Dues: \$25 Regular, \$10 Student, \$300 Life. Copper Country Audubon is a 501(c)3 nonprofit organization. Your support of our projects is for the birds!

**Copper Country Audubon
P.O. Box 124
Houghton, MI 49931**



There's Wonderful Birding in the Keweenaw!