

TAKING FLIGHT



Diving Sharp-shinned Hawk!

Photo by Karl Bardon

SHARP-SHINNED HAWK

by LAURA ERICKSON

Anyone who equates youthfulness with beauty would have trouble surviving as a bird. When birds with fairly long lifespans are looking for a mate, one quality they look for is excellent plumage, which can be associated with good health, a high level of mastery in hunting or foraging skills, and a proven ability to find shelter in harsh conditions. Equally important is the age of a prospective mate. The older a bird is, the more life experiences it has. Age is associated with position in flock hierarchies and the ability to protect a high-quality territory. “You’re not getting older; you’re getting better” is not a condescending platitude in the world of birds.

But birds don’t carry identification—so how can they figure out the age of other birds? When they fledge, Sharp-shinned Hawks are in juvenile plumage, with brown backs and brown vertical streaks on their underside. They don’t start molting out of those feathers until spring, and so are recognizable to other sharpies as last year’s young when individuals start pairing off, and will be like the kids who never get picked for the team.

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THE 2015 FALL MIGRATION IN REVIEW

by JANELLE LONG, EXECUTIVE DIRECTOR and KAREN STUBENVOLL, BOARD CHAIR

Fall is our busiest time at Hawk Ridge. From August through November, our staff and volunteers—each person focused on our mission—put in long hours, from dawn to dusk (into the night for the owl banding team), seven days a week, in blazing sun, wind, fog, rain, and snow.

By every measure, the 2015 fall migration was a remarkable season. Our incredible team of counters recorded a record number of birds—more than half a million! Our veteran banding team captured and banded 3,778 hawks and owls. The combined efforts of our counters and banders are fulfilling the research and stewardship components of our mission by adding valuable data that allow biologists to better understand migration and also help Hawk Ridge and other organizations better protect international migratory routes. The HRBO stewardship committee continues to enhance habitat within the approximately 365-acre Hawk Ridge Nature Reserve (e.g., removal of invasive buckthorn and honeysuckle). On the education front, our enthusiastic naturalist-interpreters pointed out birds on the wing and explained the nuances of flight behavior and plumage field marks to thousands of visitors. Our school and public program teams offered an array of classes for kids and adults. Our volunteers bring their own talents to the mission and work hand and hand with our staff in all aspects of Hawk Ridge's work.

We hope you will take some time from your busy day to read the fall reports prepared by our staff. The beauty of migration is in the details, and their reports are full of impressive numbers and stunning accounts of the 2015 fall season. We want to thank the staff and volunteers for their talents, energy, and commitment. They drive our mission. And so do you. Hawk Ridge Bird Observatory cannot continue to build on our mission without your membership and generous contributions as well as grants, and business and community support.

We look forward to seeing you on the Ridge in 2016, and mark these dates on your calendar: May 21-22 for the 30th annual Birdathon and compilation brunch and September 16-18 for our annual Hawk Weekend Festival.



Former Education Director, Debbie Petersen returned to Hawk Ridge with her students Photo by Suzanne Winckler



White-throated Sparrow

Photo by Karl Bardon



Safety first! Volunteer, Scott Palacheck, directs traffic during Hawk Weekend

Photo by Suzanne Winckler

The mission of Hawk Ridge Bird Observatory is to protect birds of prey and other migratory birds in the Western Lake Superior Region through research, education, and stewardship.

SHARP-SHINNED HAWK (CONTINUED)



Sharp-shinned Hawk

Photo by Laura Erickson

Sharpies with gray backs and rusty, horizontal streaking on their undersides will be far more desirable as mates, but even then, there's a way of recognizing which have not yet reached their prime. Sharp-shinned eyes turn from yellow to orange to red as they mature. It's not a perfect year-by-year change like annual rings on trees, but it still helps birds choose the most experienced mates possible. (It also helps our Hawk Ridge banders work out their ages.) Sharpies haven't been that thoroughly studied on their nesting territories, but assuming they're like other species that show similar changes as they age, older birds have a distinct advantage in mate selection, quality of territory, and nesting success. Two-year-

old birds have a much better chance of being chosen as mates than their younger cohort, but older birds, who look more desirable themselves, get first choice. Young birds usually start nesting with a same-age bird for a year or two, getting experience that will serve them in the future.

"You are what you eat" makes no sense at all with regard to Sharp-shinned Hawks. Otherwise, they would be musical like the songbirds they consume and "sweet" from downing their share of fruit-eating robins and waxwings. Sharpies are exactly what they need to be to hunt these avian morsels in wooded habitat—quick and maneuverable, fearless, feisty, observant, and focused.

They capitalize on songbird migration along the North Shore by hunting as they cruise along. Those that have eaten their fill may start rising higher in the sky, even joining Broad-winged Hawks and other kettling species to conserve energy, but most of the ones flying low over the Ridge—and all the ones caught at the banding station—are actively hunting. This makes an interesting contrast with Broad-winged Hawks. On our biggest Broad-wing days, when we may be counting tens of thousands at the overlook, only one or two, at most, are usually caught at the banding station. When they take off on a migratory flight, these little buteos concentrate on flying, not eating, limiting their meals to early morning and late afternoon when thermals are hard to come by. Meanwhile, even on a slow sharpie day, the banding station virtually always manages to catch some, and day after day, season after season, they're our most frequently caught raptor of all.

Despite their excellent hunting skills, sharpies aren't very fast in sustained flight compared to falcons, the other bird-hunting specialists. Sharpies are adapted to hunting in wooded habitat, taking their prey chiefly via surprise attacks. When they scare up a group of warblers or sparrows, they grab at whatever they can before the tiny birds get their bearings. We often see two or three in what appears to be a small group passing over the Ridge, but they're probably not associating due to social ties. The sharpie in the lead scares up the birds, and the one or two behind have an extra split second to assess the situation and choose the easiest prey.

SHARPIES ARE EXACTLY WHAT THEY NEED TO BE TO HUNT THESE AVIAN MORSELS IN WOODED HABITAT—QUICK AND MANEUVERABLE, FEARLESS, FEISTY, OBSERVANT, AND FOCUSED.

SHARP-SHINNED HAWK (CONTINUED)

Even when they're not particularly hungry, Sharp-shinned Hawks chase things, perhaps a hard-wired response to potential predators or perhaps a form of play. We often see them dive-bombing larger birds of prey and the owl decoys we set out. The decoys don't seem to mind, but both Bald Eagles and Peregrine Falcons have been known to grab and kill sharpies.

It's very difficult to know where exactly Sharp-shinned Hawks are headed, because we've had banding returns from throughout Central America and even South America, and also, in mid-winter, from the southern states up to Wisconsin. Perhaps those that specialize in chasing down warblers and vireos follow them to their Neotropical wintering grounds, while those more adept at grabbing sparrows don't need to go so far. One study from 1985 by David Evans and Bob Rosenfield found that females banded at Hawk Ridge winter further south than males; a similar study at Cape May, New Jersey, found the opposite, but neither study was conclusive. The more we learn, the more we realize we still don't know.



The way Sharp-shinned Hawks hold their wings while cruising forward gives them a distinctive profile

Photo by Laura Erickson



Sharpies can stretch and widen their wings while riding thermals

Photo by Laura Erickson

Sharpies that survive this fall's migration and this winter, and then next spring's migration, will do their best to claim an excellent territory and raise young so our migration spectacle will continue. After their first treacherous year, each bird's odds of survival will improve. The oldest known Sharp-shinned Hawk lived to be over 12 years old. It was an after-second-year male banded at Hawk Ridge on September 18, 1999, and recaptured and released at Hawk Ridge on August 27, 2009. This bird holds the Sharp-shinned Hawk longevity record within the entire USGS Bird Banding Laboratory database. During its lifetime, it may well have produced a dozen or two young, some of which probably winged past Hawk Ridge once or twice, too. Every one of the birds we see has a story to tell, if only we could understand!



The HRBO counting team recorded 5,671 Bald Eagles in 2015, the second best year ever

Photo by Karl Bardon

RAPTOR REPORT

by KARL BARDON, COUNT DIRECTOR

Hawk Ridge Bird Observatory conducted its annual hawk count from August 15 to November 30, 2015, at the overlook, with a total of 76,859 raptors counted, which is well above average for the last ten years, but about average since full-time coverage began in 1991.

In terms of overall numbers, this was the best season since 2004, driven by excellent flights of Broad-wings, Red-tails, Sharpies, and eagles. Highlights for the season included the best Broad-wing flight since 2004, the best Red-tail flight since 2006, well above average numbers of Sharp-shinned Hawks, the second best Bald Eagle season, the third best Golden Eagle season, the second best Peregrine season, a record number of Merlins, eight Swainson's Hawks, one Red-shouldered Hawk, and a single Mississippi Kite on the very late date of September 21.

Perhaps more than other seasons, weather played a major role in some of the highlights and some of the low points this fall. As I write this account in mid-December, many of the larger northern lakes are still not frozen, and the creek in our yard is still running with very little snow on the ground. No doubt many raptors, especially eagles, have not moved south yet. Our general impression of the season was that raptors had a productive summer with many juveniles present, and many of the birds we saw of all raptor species appeared well fed with full crops, indicating there was plenty of food available throughout the summer and fall.

From September 29 to October 4 we had a week of strong east winds and clear skies, which pushed the migration many miles inland to the west. Although it is not unusual to have a few days of strong east winds, this usually occurs with rain and overcast skies (which probably shuts down raptor migration everywhere), so it was unusual to have clear skies during this period, allowing the birds to migrate out of our range. This was especially unfavorable to our Peregrine Falcon total, since this is the peak period for them, but I am also convinced that thousands of Sharp-shinned Hawks and other migrants were missed.

Conversely, a prolonged period of predominantly westerly winds from October 9 to 17 brought consistently good flights for many days in a row, including five straight days of over 1,000 birds (predominantly Red-tails), culminating on October 17 when 898 Red-tails were seen, the peak date of the season. Unfortunately, the rest of the month had only brief periods of westerly winds and remained remarkably mild, without any strong cold fronts or snow events to push birds south, so numbers were relatively low during what is typically the peak period for Red-tails and other late-season migrants.

A strong cold front did not occur until November 19-20, with the first major snowfall and temperatures that finally plummeted to more typical lows for the season. This brought the expected flight of birds, including over 500 eagles on November 20 (492 Balds and 12 Golden's), but two days later the wind had shifted to the south and the temperature was back above freezing. The last three days of the count had above freezing temperatures!

This count is possible only because of a dedicated group of counters motivated to spend every day throughout the fall up on the count platform scanning for every conceivable speck on the horizon. My sincere thanks to Alex Lamoreaux, Kaija Gahm, Steve Kolbe, Dave Carman, Russ Edmonds, Kathleen MacAulay, Karen Stubenvoll, Reed Turner, Jan and Larry Kraemer, Candice Swanepoel, Joe Beck, Anna Fasoli, Scott Moorhouse, and Frank Nicoletti.

[See the profile of Karl reprinted from the Duluth News Tribune on page 7.](#)



Merlin harassing owl decoy at Hawk Ridge

Photo by Karl Bardon

NON-RAPTOR REPORT

by KARL BARDON, COUNT DIRECTOR



Common Nighthawk catching a bug as it migrates over Hawk Ridge. The 2015 season count was over 50,000!

Photo by Karl Bardon



Blue Jay migrating down the shore with lunch, a bright red cherry

Photo by Karl Bardon

The number of birds that migrated by Hawk Ridge in 2015 was both amazing and overwhelming. The season total of 517,908 non-raptors was more than 150,000 birds higher than any previous season, with many new seasonal and daily records set. This is the ninth year that non-raptors have been counted full-time at Hawk Ridge, and the sixth year that an additional count from the shore of Lake Superior has been used to more accurately document the scope of migration.

The first migrant of the fall season was a Cape May Warbler in flight with tens of thousands of dragonflies on July 3, and the last migrant was a Red Crossbill heard on the Ridge on November 30. Good numbers of warblers and other species were already moving south in late July before the beginning of the official count period, but thankfully the biggest flight of the season occurred on September 1, the first day that multiple counters were present on both the shore and the Ridge.

A massive flight of birds overwhelmed the counters on September 1 when 91,641 non-raptors were counted, the biggest flight I've ever witnessed in Duluth, and more birds on this single day than I counted my entire first season in 2007. I would prefer the birds take turns, but on this date everything flew at once, including 28,054 Common Nighthawks (third largest flight ever), 26 Ruby-throated Hummingbirds, 8 Red-headed Woodpeckers, 45 Eastern Kingbirds, 12,842 Cedar Waxwings (record high count), 34,942 warblers of 16 species (highest count ever for Duluth), 21 Scarlet Tanagers, 198 Rose-breasted Grosbeaks (record high count), 1,563 Red-winged Blackbirds, 30 Baltimore Orioles, and 16,865 unidentified passerines. Even just one contingent of this flight would have been overwhelming, but to have it all happen at once was simply mind-blowing.

Amazingly, the pace set on September 1 continued throughout the season, with many additional record flights. More than ten times more Yellow-bellied Sapsuckers flew by than ever before, with a seasonal total of 967 and record daily counts of 278 on September 22 and 437 on September 28. A record high count of 10,812 Blue Jays on September 10 helped bring the season total to a record 66,647. Almost all the swallow species were more common than ever before, including a record high count of 7,109 Cliff Swallows on August 16. On September 28 an incredible flight of 1,443 kinglets occurred, including a record high count of 733 Golden-crowned, 125 Ruby-crowned, and 585 unidentified kinglets. The season totals of 56,000 Common Nighthawks and 46,683 Cedar Waxwings were both record years, while the overall count of 76,821 warblers (of 25 species) was the best season since 1988 when 86,472 warblers were counted from the Lakewood Pumping Station in Duluth. This fall, no less than 15 species of warblers had their best season ever! Sparrows also had a great season, including high seasonal counts of 3 Clay-colored, 12 Savannah, 65 Fox, 3,203 White-throated and 35 Harris's sparrows, plus 5,684 Dark-eyed Juncos. As if all that were not enough, it was also a great year for finches, with 90,550 finches counted, including a record year of 67,452 Common Redpolls.

One has to wonder why there were so many birds this season. Birds clearly had a productive year with nice weather throughout the spring and summer, but the weather variables that produce such amazing flights of birds still remain a mystery. For example, the conditions on September 1—which produced such an incredible flight of over 91,000 birds—were overcast, warm, and relatively calm, with no approaching cold front or anything that would seem to trigger a flight. So how did tens of thousands of birds of so many vastly different species all decide to fly on the same morning? The last few years have seen a remarkable increase in the number of birds counted. Although in some cases this may be explained partly by the high level of our observers' skill and knowledge of the flight, the numbers clearly indicate that significantly more birds are dominating the Hawk Ridge air space during fall migration. One can only wonder what it will be like this coming fall!

As I kept saying all fall, the best part about this overwhelming flight was that we had so many more skilled observers on hand to count than ever before. I frequently got to the Ridge after doing the morning count on the shore to find an entire team of dedicated people busily clicking and scanning. My thanks to HRBO staffers Alex Lamoreaux (Counter), Kaija Gahm (Count Trainee), and Reed Turner (Banding Trainee), and great volunteers Steve Kolbe, Dave Carman, Kathleen MacAulay, Karen Stubenvoll, Jan and Larry Kraemer, Anna Fasoli, and Joe Beck.

HAWK RIDGE COUNTER KARL BARDON BRINGS A PASSION FOR ALL KINDS OF BIRDS TO HIS WORK

by SAM COOK, DULUTH NEWS TRIBUNE

Karl Bardon got a head start in birding. He grew up in the wooded Twin Cities suburb of North Oaks, and his dad, a birder, would take him on walks as a young child.

"I have a distinct memory of my first birding walk with my dad," Bardon said. "It was a spring morning. We saw a catbird. I thought, 'Cool — a bird named after a cat.' I've watched birds every day since."

This time of year, Bardon watches birds every day at Hawk Ridge in Duluth, where thousands of raptors and thousands more songbirds flow over the green hillside 500 feet above Lake Superior. For nine years, Bardon has been the official counter at Hawk Ridge.

He has loved watching birds for as long as he can remember, and apparently before, too.

"My parents tell me I was interested in the big pileated woodpecker in our yard as a toddler," he said. "I'd run to the window to watch it. It's still one of my favorite birds."

Bardon, 49, was hired by Hawk Ridge Bird Observatory in 2007 to count raptors, continuing an official count that began in the early 1970s. But Bardon appreciates all birds, and that same year he began counting songbirds, too. Like raptors, songbirds pass over Duluth by the thousands each fall, skirting Lake Superior. The songbird count has become an integral part of the Hawk Ridge program, and Bardon has documented it in "The Loon," a journal of the Minnesota Ornithologists' Union.

Bardon came to Hawk Ridge with a solid resume after many years as a counter—waterbirds at Whitefish Point in Michigan; waterbirds at Avalon Sea Watch near Cape May, New Jersey; raptors in Veracruz, Mexico.

Fellow birders who watch Bardon in action say his birding skills are something to behold.

"He's the best in-flight bird identifier I've ever met, and I've met them all," said Dave Carman, former executive director of Hawk Ridge Bird Observatory and a longtime volunteer counter at the ridge.

"Several of us counted migrating songbirds in the 1980s and early '90s from Hawk Ridge and the Lakewood Pumping Station," said Duluth ornithologist Laura Erickson. "We were pretty skilled at figuring out most birds by their flight pattern, silhouette and calls. ... But Karl's skills dwarf everything we did back then."

LONG DAYS

Bardon is a tireless counter. He often starts his fall days at sunrise counting songbirds along Duluth's lakeshore. By mid-morning, he's up at Hawk Ridge, counting both raptors and songbirds until sunset, clicking away on his hand-held counters, jotting down hour-by-hour tallies. He rarely takes a day off except for part of a rainy day here and there.

"During the migration, I feel like I'm on high alert," he said. "Anything could happen."

Hawk Ridge executive director Janelle Long has witnessed Bardon's dedication for several years now. "Karl is the type of birder that is up before dawn listening to calls of bird migrants under the stars," Long said. "If birds like nighthawks are still moving at dusk, Karl will be counting them. On his time off, he's still birding, and I wouldn't doubt if he's dreaming about birds, too."

Bardon is motivated to a great degree by the thought that any day he might witness some kind of avian passage he has never seen before—one that maybe nobody has seen before. Just this fall, he observed—and helped count—a flight of more than 91,000 non-raptors, including more than 33,000 warblers. Earlier this year, he had a record count of 7,100 Cliff Swallows in a single day.

This article from the Duluth News Tribune appeared on September 13, 2015 and is reprinted with permission.



Karl at work with his tools—8.5-power binoculars, 20- to 60-power spotting scope, 50-power sunsreen

Photo by Karen Stubenvoll

HAWK RIDGE COUNTER KARL BARDON BRINGS A PASSION FOR ALL KINDS OF BIRDS TO HIS WORK (CONTINUED)

"One year, there were thousands of crossbills," he said during a rainy-day interview at a local coffee shop. "The next year, there will be hundreds of something else. Last year, we started seeing a lot of thrushes. They are thought to migrate at night, but the sun comes up and they want to fly some more. I thought, 'Wow, this wasn't supposed to happen.'"

Those observations are not just pleasant anomalies. Once documented, they contribute to the overall body of birding knowledge. Twice, in 2010 and in 2013, Bardon was honored by the Minnesota Ornithologists' Union for special achievement in field ornithology.

"The data we collect at Hawk Ridge is fundamental for working out all kinds of mysteries of bird populations and migratory movements," Erickson said, "and Karl's work has increased the value of the data collected by orders of magnitude. I'm astonished by the level of his skill."

Bardon takes his work seriously, but denies that he possesses extraordinary observational skills. "I'm just dedicated," he said. "It's not that I have good eyes. The birds are out there for anyone to see. There's nothing special I do other than get up for the sunrise."

ON THE JOB

It's a slow day in late August at Hawk Ridge. Bardon is alone in the counter's loft, a corral of sorts that rises above the main overlook on East Skyline Parkway. His tools are at hand—8½-power binoculars, 20- to 60-power spotting scope, 50-power sunscreen. By midday, he has counted a couple dozen Sharp-shinned Hawks, a dozen Broad-wings, 10 Bald Eagles, a Northern Harrier and a Cooper's Hawk.

The migration typically peaks in mid-September as the Broad-wing flight builds. Bardon will have help on those days, assistants and volunteers who will slice the sky into lanes and partition counting duties. A bank of mechanical counting clickers will be anchored on a railing, each one representing a particular species. Counters tap out every raptor that passes over.

Broad-wing. Click.

A pair of Sharp-shins. Click. Click.

Red-tailed Hawk. Click.

All the while, Bardon is counting songbirds (called passerines) that fly among the raptors.

"I don't know how he does it," Carman said. "You look over, and he's got all the raptors I've got, and he's got all the passerines, too."



Counters click every bird that flies over

Photo by Kaija Gahm



Ovenbird flight song, acrylic on canvas

by Karl Bardon

BIRDS WITH A BRUSH

Bardon's passion for birds reaches beyond the counting station at Hawk Ridge. He's also been a painter of birds since childhood and in the past few years has been working to establish himself in that world. He's had shows featuring his paintings at Lizzards Art Gallery and the Great Lakes Aquarium.

He holds an undergraduate degree in studio arts from the University of Minnesota. Though he is soft-spoken and unassuming by nature, Bardon is pushing himself to promote his painting. "I want to do more with my art," he said. "It's a big step to market yourself because that's not my personality. But I like to paint, and I'd like people to see what I've done." He has also done shows that feature his remarkable photography of raptors, water birds, and warblers.

Bardon chooses not speculate on how much longer he'll be counting hawks and songbirds in Duluth. Every day holds the potential for some great revelation or small wonder. That's why he's on duty, daily from mid-August through the end of November, watching and counting. Some birdwatchers travel the nation or the world to watch birds. Bardon says he'd rather stand in one place and let the birds come to him.

"People say, 'How can you do this so long? It gets so cold,'" he said. "But you want to see what comes over the ridge. I could do it here for another ten years and keep discovering things."

HAWK RIDGE'S 30TH ANNUAL BIRDATHON IS COMING UP ON MAY 21

Get outdoors, count birds, raise money for Hawk Ridge, combat climate change

On December 12, 2015, nearly 200 countries gathering in Paris reached an agreement to combat climate change by keeping global temperatures from rising 2 degrees centigrade (3.6 Fahrenheit) above preindustrial times. The world is already halfway there—with an almost 1 degree centigrade increase—so there is a lot of work ahead for governments and ordinary citizens to reduce carbon emissions. Years before the historic adoption of the Paris Agreement, people like HRBO board member Steve Wilson have quietly been adopting carbon-reducing activities in their lives and serving as role models among their friends and colleagues. As a biologist, outdoorsman, hunter, and birder, Wilson is often on foot, skis, snowshoes, roller-blades, or bike pursuing his research and favorite pastimes. He gets a lot of exercise and stays in good shape. So what's good for the climate is good for your health.



Team Sitting Ducks—Jessica Chatterton, Annmarie Geniusz, and Steve Bockhold

Photo by Karen Stubenvoll

On May 21, 2016, Wilson and his non-motorized team of Whip-poor-wheels will hit the bike paths of St. Louis County again as part of Hawk's Ridge's 30th annual Birdathon. Last year, they won the Township Category for the second year by counting 86 species.

Wilson and the Whip-poor-wheels are not the only Birdathoners who are reducing their carbon footprints. Last year, the Sitting Ducks sat in one place on Park Point and won the Big Sit Category by observing 41 species while enjoying coffee, doughnuts, and mimosas (another advantage of non-motorized birding) and they had front-row seats to what they called the Duluth Warbler Symphony—17 species of warblers that provided an entertaining musical chorus and colorful performance!

The Birdathon is a 24-hour bird-watching competition that raises money for HRBO's avian research and education programs when generous friends and families make pledges on their favorite teams. The compilation brunch will be held on Sunday, May 22, at Hartley Nature Center, where great prizes will be awarded for teams winning their category. If you want to make a pledge or form a team, please contact us at birdathon@hawkridge.org. Registration details are on our website at www.hawkridge.org under the Events tab. Read about last year's Birdathon at <http://www.hawkridge.org/wp-content/uploads/2015/05/Hawk-Ridge-Birdathon-Summary-2015.pdf>

HAWK RIDGE THROUGH THE YEARS



Jan Green and a small band of other dedicated birders started counting raptors at Hawk Ridge in the 1960s. Over time, they began to realize the land with the spectacular view—and the incredible passage of birds—needed to be protected. In 1972, with help from Duluth city planners, they reached an agreement to create Hawk Ridge Nature Reserve, which was first managed by Duluth Audubon Society and then by a newly created non-profit called Hawk Ridge Bird Observatory. This photo was taken on September 15, 1962. Left to right: Rex Campbell, Dennis Meyer, Liz Campbell, Jack Hofslund, Jan Green, and Ole Finseth.

If you have photos of your visits to Hawk Ridge and would like to share them, please send digital images with a brief description and date of photo to mail@hawkridge.org.

RAPTOR BANDING REPORT

by FRANK NICOLETTI, BANDING DIRECTOR

This year marks the fifth season since I took over managing the Hawk Ridge Bird Observatory banding operation and its 43th contiguous season since 1972. Hawk Ridge is one of the longest-running banding operations in the world, and these continuing efforts are providing important data to help researchers better understand raptor migration. Since 2011, I have maintained the same effort at three hawk banding stations: Hawk Ridge, Moose Valley, and Paine Farm. However, this season, because of budgetary constraints, we were unable to operate full-time at Paine Farm and Moose Valley. Fortunately, Miranda Durbin and David Alexander worked part-time at those stations, mainly during September and October, and our two banding trainees and a core of volunteers allowed us to run multiple stations efficiently.

We captured and banded a total of 3,778 raptors at the three stations, of which 2,130 were hawks and 1,648 were owls. The owls were all banded at the main station at Hawk Ridge. The total included 61 foreign recoveries and 21 returns. Dates of operation were as follows: August 13 to November 30 at the main station; August 24 to November 8 at Moose Valley; September 5 to October 17 at Paine Farm. We logged 187 days, which is well below our average (full-time) of 235 station days, and the overall average number of raptors banded per day was 20.2.

The migration this fall was mixed with high and lows for banding. Certainly, the hawk count recorded better than average, with the highest totals since 2004. We experienced warmer than normal temps, which meant southerly winds, often resulting in higher flying birds and less attraction to the banding stations. Top that with a massive passerine flight, which meant avian-eating species such as Sharp-shinned Hawk, Merlin, and Peregrine Falcon had no trouble finding food. The warmer weather also helped insect-eating species such as American Kestrel. We saw kestrels often feeding on grasshoppers, dragonflies, and other prey items in the fields. We also saw late-season migrants, such as Northern Goshawk and Red-tailed Hawk, showing little response, many with full crops, the result of many days of good hunting between flight days.



Rough-legged Hawk

Photo by Miranda Durbin



Owl Bander Ryan Steiner with Barred Owl

Photo by Alex Lamoreaux

A total of 2,126 hawks were banded during the fall, with monthly total as follows: 156 in August, 1,541 in September, 394 in October, and 35 in November. Both August and September were good considering the loss of station days, but October and November simply had poor trapping conditions.

Owls kept us busy this fall with 1,648, including 58 foreign recoveries and 20 returns. This is the second largest total of owls banded behind the 2012 season when 2,034 owls were captured. We have been using the same owl protocol since 2011, with two caller units: one each for Northern Saw-whet (NSWO) and Long-eared Owl (LEOW). They are run simultaneously during the night. As in previous years, the NSWO caller was placed in the west net lanes, while the LEOW caller was placed in the east net (pines grove) lanes.

RAPTOR BANDING REPORT (CONTINUED)

We are still waiting for information on a number of recoveries likely banded this fall. There were few hawks recovered this fall, two Sharp-shinned Hawks and a Northern Goshawk from the North Shore, a nestling male Peregrine Falcon banded on June 12 from a nest site near Sugarloaf. A nice return was a Northern Goshawk banded originally on September 30, 2008, as a second-year and recaptured November 6, 2015. Perhaps the most exciting recovery so far this season was a hatch-year female Sharp-shinned Hawk banded on September 12, 2015, at Hawk Ridge and recaptured at the Cansaburro Banding Station in Veracruz on October 25, 2015. This bird flew 3,150 km (1,957 miles) in 43 days, about 73 km (45 miles) a day. This banding station is part of the Río de Rapaces (River of Raptors) Project in Mexico.

Amazing were 76 Northern Saw-whet Owl recoveries, most ever in a season and by far the most numerous species recaptured. Among them were 19 returns (13 from 2014, 1 from 2013, 4 from 2012, and 1 from 2011). Among the recoveries reported thus far, we had 8 from Thunder Cape from past seasons (3 each from 2014 and 2013 and 1 each from 2011 and 2012). Others from this season include 1 from Whitefish Point in Michigan (2012) and the following Wisconsin banding sites: 4 from Linwood Station (2013 and 2014), 1 from Cedar Grove in Green Bay (2014), and 2 from Falls Creek (2014). We also had recoveries from three North Shore sites, French River, Tofte, and Finland.



Hawk Ridge Banding Director, Frank Nicoletti

Photo by Sam Cook

David Alexander, Miranda Durbin, and I staffed the three banding stations for diurnal raptors while Ryan Steiner worked the night shift at Hawk Ridge banding owls. Reed Turner and Alan Moss, this season's trainees, worked tirelessly. I would also like to thank other HRBO staff and trainees and numerous volunteers who helped in many ways, including Karl Bardon, Alex Lamoreaux, Kaija Gahm, and Dave Carman who called birds to the station and those who helped in the station: Gary Leeper, Katie Swanson, Amber Burnette, Bruce Munson, Eliza Grames, Grace Glick, Valerie Slocum, Abbie Valine, Royce Galindo, Karen Stubenvoll, Meredith Lorig and the education staff and volunteers, and the Stewardship Committee. I would especially like to thank my wife, Kate, for all she does and for her support.

2015 Fall	August	September	October	November	Total	Recovery	Return	Total
Bald Eagle	2	1	1	0	4	0	0	4
Northern Harrier	1	27	20	1	49	0	0	49
Sharp-shinned Hawk	113	1,362	256	10	1,741	1	0	1,472
Cooper's Hawk	13	22	2	0	37	0	0	37
Northern Goshawk	0	4	47	13	64	1	1	66
Broad-winged Hawk	3	12	0	0	15	0	0	15
Red-tailed Hawk	9	21	52	11	93	0	0	93
Rough-legged Hawk	0	0	1	0	1	0	0	1
Kestrel	2	29	3	0	34	0	0	34
Merlin	13	54	11	0	78	0	0	78
Peregrine Falcon	0	9	1	0	10	1	0	11
Total	156	1,541	394	35	2,126	3	1	2,130
Northern Saw-whet Owl	0	407	1,002	21	1,430	57	19	1,506
Barred Owl	0	2	15	3	20	1	1	22
Long-eared Owl	0	0	98	21	119	0	0	119
Great-horned Owl	0	0	0	1	1	0	0	1
Total	0	409	1,115	46	1,570	58	20	1,648
Total Raptors	156	1,956	1,509	81	3,696	61	21	3,778

HAWK MIGRATION: LESSONS FOR SUSTAINABILITY

by AMY FEINSTEIN, FALL SCHOOL PROGRAM DIRECTOR

Education at Hawk Ridge means different things to different people. To a 5th-grade teacher whose students are learning about scientific measurements, it's a chance to incorporate real-life examples such as measuring wings and counting kettles of Broad-winged Hawks. To a 1st-grader, it might be finding out just what makes a bird a bird and a raptor a special kind of bird.

For a group of architecture students from Arkansas, it was an opportunity to expand their university education—"Getting students a small glimpse of world outside the confines of their discipline," as their professor explained.

I was a little surprised when Professor David Buege, of the Fay Jones School of Architecture at the University of Arkansas, contacted me to inquire about a group program for his students who were coming to Minnesota on an architectural road trip. One of their primary destinations was Saint John's Abbey in Collegeville, MN, designed by modernist architect Marcel Breuer, but Buege also ranks Duluth and Hawk Ridge among his favorite places.

Buege's teaching centers on the architecture of cities and urbanism, so ultimately on architecture's role in biodiversity as the primary criterion for sustainability. "A long time ago I read David Quammen's book *The Song of the Dodo* and it clarified for me what sustainability is truly about," he said. "What is addressed in terms of sustainability in architecture should fundamentally be about how we use land, so anybody who has a significant emotional and intellectual investment in nature should simultaneously have an investment in cities."

There are no sheltered facilities at Hawk Ridge, so classes are weather-dependent—and the morning scheduled for the U of Arkansas students did not look promising. The fog was exceptionally thick and a light drizzle kept threatening to break into active rain. Professor Buege and his class arrived precisely at 9 a.m. but asked if we could shift the class time to the afternoon to see if the sun (and the birds!) would be more cooperative. As the afternoon approached, I didn't have high hopes, but just in time, the fog lifted and the birds started flying.

**WHEN MY ARCHITECTURE STUDENTS
SPEND A FEW HOURS AT HAWK
RIDGE THEY UNDERSTAND THEIR
WORLD JUST A LITTLE BIT BETTER.**

The students walked up to the lecture area, enthusiastic and ready to learn. We were able to show them a young Sharp-shinned Hawk just banded at our banding station. When it came time to release the bird, Gigi Singh del Rio, a student from Panama, eagerly volunteered. There is nothing quite like holding a wild hawk for those few moments. "I could feel the warmth and his heartbeat," del Rio describes. "He was a very proud, alert, and intimidating hawk—and I let go of him with a little push."

The students asked questions throughout the program and lingered afterwards to look up close at the wings and talons we use for education. I brought up the problem of birds being killed by window strikes and we talked about how, as future architects, they could incorporate harmony with nature as an element in their designs. The class opened a window, showing me that a passion for raptors and building design can come together to make a fantastic educational experience for both students and this teacher alike.

Professor Buege hopes to start a Natural History for Architects class at some point in the future, but in the meantime he is taking students out on trips to expand their university education. "When my architecture students spend a few hours at Hawk Ridge they understand their world just a little bit better."



Gigi Singh del Rio, an architecture student at the University of Arkansas, helps release a Sharp-shinned Hawk during an education program

Photo by Katherine Dombek

2015 PROGRAM HIGHLIGHTS

SCHOOL PROGRAMS

- Taught 56 programs to 33 schools and organizations
- 1,300 people—kids and adults—attended these programs
- Duluth 5th-graders got to watch a special demonstration of passerine banding

For complete reports, please visit the Hawk Ridge website at www.hawkridge.org.

PUBLIC PROGRAMS

- Offered more than 70 learning opportunities for 1,250 visitors
- Launched the Minnesota Birds Evening Speaker Series, lectures by regional ornithologists and bird experts, in partnership with Hartley Nature Center
- For the first time, offered special Private Owl Programs to small groups

PASSERINE BANDING

- At main station, during 42 days, banded 1,270 passerines including 803 warblers, 82 thrushes, and 80 flycatchers
- At the overlook station, during 13 days, banded 85 birds of 20 species including 7 species of warblers
- Started a new multi-year research project: collecting feather samples of selected passerine species to determine which species are contributing to the elevated mercury levels being observed in Merlins and Sharp-shinned Hawks
- Met with 9 banding colleagues from other Minnesota nature centers to share experiences, discuss coordinated research projects, and establish a better network of communication

PEREGRINE WATCH

- Offered 15 days of Peregrine viewing and education at Lake Place Park to 661 visitors
- Tracked new developments with female Peregrine Canada (*B/8) who partnered this season with a younger male at a new nest site
- They successfully hatched two males, both of which fledged with minimal issues
- Most exciting of all, one of these young male falcons was recaptured and released in Lima, Peru, in late October having traveled an amazing 4,000 miles (6,437 km) on his first migration to his wintering grounds!



Education Trainee Jenny Rieke teaching a group of students from Eveleth, MN Photo by Suzanne Winckler



Dedicated HRBO volunteer Susan Bauer prepares personal bands--with unique numbers and initials--for two youngsters at the Kids' Cart and Education Touch Table

Photo by Suzanne Winckler

DR. GERALD NIEMI RECEIVES 2015 LIFETIME ACHIEVEMENT AWARD

by MATT ETTERSON, HRBO BOARD MEMBER

For his dedication to Minnesota Ornithology and his many contributions to our understanding of avifauna in the Great Lakes Region, the members and board of Hawk Ridge Bird Observatory were proud to present Dr. Gerald “Jerry” Niemi with a Lifetime Achievement Award at its annual meeting in September 2015.

Jerry’s formal training in ornithology began at the University of Minnesota Duluth, where he received a Bachelor of Science degree in Biology and then a Master of Science, under the mentorship of Dr. Jack Hofslund. He went on to complete a PhD at Florida State University, working with Dr. Frances James. Following his graduate work, Jerry returned to Duluth, where he is a Professor of Biology at UMD and a Senior Research Associate at the Natural Resources Research Institute.

Jerry, a past board member and research committee chair of HRBO, has been instrumental in bringing HRBO into its own not only as an education and outreach center, but also as a center for high-quality research on birds and bird migration. Dr. Niemi has had a distinguished career and is a well-known ornithologist beyond his work with HRBO. He has been an elected fellow of the American Ornithologists Union since 2006 and also serves on the boards of the Raptor Research Foundation and the Hawk Migration Association of North America. Dr. Niemi has published more than 135 papers in peer-reviewed journals on a wide range of topics from avian community ecology to predictive toxicology to the design and use of ecological indicators. Jerry has graduated some 35 masters and PhD students who are also making a great impact in research and management of bird populations.

Jerry has also achieved the virtually unachievable in today’s scientific funding environment. He has kept a long-term study of birds in the National Forests of the Great Lakes region running for about 25 years now, making it one the most valuable datasets on the health and dynamics of North American bird communities existing today. What is truly noteworthy about Jerry, however, is that he is one of the most generous scientists you will ever meet, with his time, with research opportunities, and with the invaluable data sets that he created and curates. Perhaps one of the best measures of one’s productivity may be the number of people that would be required to replace you. In Jerry’s case we would need a dozen or more.



Jerry Niemi doing a Minnesota Breeding Bird Atlas count

Photo by Jarad Niemi



Migrating Northern Flicker

Photo by Steve Kolbe

AWARD-WINNING SCIENCE JOURNALIST ANNE BRATAAS JOINS BOARD

Anne Brataas believes in the power of story. A seasoned and award-winning journalist, science writer and editor, designer, curricula developer, she is the founder and president of the Story Laboratory, LLC (www.thestorylaboratory.com) whose maxim is “Making science accessible through smart stories boldly told.” Brataas was elected to the Hawk Ridge Bird Observatory Board in September at the members’ meeting during the 2015 Hawk Ridge Fall Festival.

Brataas has a clear goal for her board service: To engage more people more deeply in the wonder and importance of HRBO’s work. Hawk Ridge’s research focus is of special interest to her. Her first projects on the Board is to find ways to emphasize to the public the organization’s important role in collecting and curating scientific evidence on raptor migration.

“Hawk Ridge is a national treasure,” she says. “More people should come to Duluth to not only witness the amazing passage of raptors and other birds—but to understand the phenomenal biology of migration. I believe those kinds of insights and experiences will encourage more people to enjoy, participate in, and support Hawk Ridge’s important work and mission.”

Brataas’ first career was as a science journalist and columnist, working for the Duluth Herald and News Tribune, Minneapolis Star-Tribune and St. Paul Pioneer Press. Her book of nature columns for the St. Paul Pioneer Press, North Country Almanac, was a Minnesota Book Award finalist in 1994.

While working at the Duluth newspapers in the late 1970s, Brataas covered the complicated and often acrimonious formative years of the Boundary Waters Wilderness Canoe Area. Her many reporting trips north during that era brought her closer to sites of early childhood family camping trips along the Echo Trail, and sealed her love of the Arrowhead Region of Minnesota and the North Shore of Lake Superior. In 1990 she was nominated for a Pulitzer Prize for a series of reports from newly opened former Soviet Union while living with Soviet families. She is currently a science teaching and learning columnist for MinnPost, Minnesota’s largest online newspaper.

At the Story Laboratory, Brataas gets the good news out about science for myriad clients—among them Mayo Clinic, Minnesota Institute for Talented Youth, American Institute of Physics in Maryland and the American Association for the Advancement of Science in Washington, D.C.

She lives in St. Paul and Grand Marais with her husband, Charles, a civil engineer specializing in water resources with Barr Engineering. They have two college-aged sons, Kip and Aaron. For recreation Brataas enjoys anything outdoors that involves moving and beholding beauty—Nordic skiing, hiking, biking, roller blading, and horseback riding (a great way to watch birds!) are favorites. She is at work finishing a novel and a children’s book in print and digital platforms—and has lately noticed the occasional raptor gliding into the illustrations of her children’s story! History is also a passion, as she works glacially toward finishing her PhD in Science, Technology and Medicine, specializing in museum curation and the visual rhetoric of the scientific article.

She’d love to hear from you. Please share your thoughts with her: anne@thestorylaboratory.com.



New board member Anne Brataas

Photo by Charles Hathaway

RAPTOR READING LIST

by JERRY NIEMI, UNIVERSITY OF MINNESOTA-DULUTH DEPARTMENT OF BIOLOGY

These books and articles will broaden your knowledge and appreciation of hawks and hawk migration.

Migrating Raptors of the World: their ecology and conservation,
by Keith L. Bildstein. 2006. Cornell University Press, Ithaca, NY.

State of North America's Birds of Prey, edited by Keith L. Bildstein,
Jeff P. Smith, Ernesto Ruelas Inzunza, and Richard R. Veit.
2008. Nuttall Ornithological Club. Cambridge, MA and American
Ornithologists' Union, Washington, D.C.

A Field Guide to Hawks of North America, by Brian K. Wheeler and
William S. Clark. 2001 (Second Edition). Houghton-Mifflin, New
York, NY.

Hawks in Flight: Second Edition, by Peter Dunne, David Sibley, and
Clay Sutton. 2012. Houghton Mifflin Harcourt Company, New
York, NY.

Hawk Ridge, Minnesota's Birds of Prey, by Laura Erickson, with
illustrator Betsy Bowen. 2012. University of Minnesota Press,
Minneapolis, MN.

The Birds of North America, edited by Alan Poole and Frank Gil. The
Academy of Natural Sciences, Philadelphia, PA and the
American Ornithologists' Union, Washington, DC U.S.A. This
compilation of data is the definitive source of information for
each bird species in North America. Access is available by
subscription through the Cornell Laboratory of Ornithology (
<http://bna.birds.cornell.edu/bna/>), Buteo Books, and many
libraries.

Raptors of North America: Natural History and Conservation, by
Noel Snyder and Helen Snyder. 2006. Voyageur Press, St. Paul,
MN.



Adult Peregrine Falcon attacking a Blue Jay (the Blue Jay got away)

Photo by Karl Bardon



Borealis x Harlan's Red-tailed Hawk

Photo by Karl Bardon



Osprey flying over the count platform

Photo by Karl Bardon



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Fall Count

Raptor Banding

Songbird Banding

Spring Count

HELP US MEET OUR FINANCIAL OBLIGATIONS

Hawk Ridge Bird Observatory depends on the generous contributions made by its members and friends. You'll receive special member discounts and behind-the-scenes tours as well as knowing these funds go to support education and research. Your membership contribution is tax deductible! Please make checks payable to Hawk Ridge Bird Observatory.

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You can support the work of Hawk Ridge Bird Observatory, and create a legacy for the future, by remembering us in your estate plan.

Did you know there are ways to support Hawk Ridge Bird Observatory (HRBO) that do not affect your lifestyle or financial security? A bequest in your will or estate plan will help ensure that HRBO will continue its raptor research, education programs, and other bird conservation efforts for years to come. You can also designate HRBO to be the

beneficiary of a life insurance policy or an IRA. It's simple to do. Talk to an estate planning specialist or to our Executive Director, Janelle Long, for more information. (218) 428-6209 or jloug@hawkridge.org

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Adult male Peregrine Falcon

Photo by Alex Lamoreaux