



2024 Year In Review

Conserving Alaska's boreal birds through ecological education & research

Happy Holidays birding friends! I hope you are enjoying time with family and friends during the festivities of the season. Thank you for taking the time to read my message and for your support of the Alaska Songbird Institute (ASI). I serve on the ASI board, and I'd like to share why your support for ASI and songbirds is so important. Partnering with ASI directly contributes to healthier songbird populations in Interior Alaska and a brighter future for both birds and today's interior youth who will become tomorrow's leaders.

ASI's mission is to conserve Alaska's boreal birds through ecological education and research. We employ this dual focus because we believe that both research and education are essential to our conservation mission. Our research projects comprise the basis of our organization while our education programs give the Fairbanks community a stake in our work and help spark youth interest in songbird conservation.

The Creamer's Field Migration Station, Tree Swallow Ecology Project, *North for Science!*, and *Fairbanks Feeder Count* have made significant strides in understanding and preserving boreal songbird populations as well as providing local youth with mentoring and internship opportunities. Including children in all aspects of ASI's research introduces them to the joy of birds. Over time, kids develop a passion for bird conservation and the critical thinking skills needed to make informed decisions as adults.

The Creamer's Field Migration Station (CFMS), which began in the fall of 1992, is a long-term songbird banding station, which is the only one of its kind in Alaska's vast boreal forest. In fact, CFMS is the northernmost continuously operated banding station in North America, which positions us to collect unique data on North American songbird populations. Up to 3,500 people visit the station each year, including about 80 school groups.

The Tree Swallow Ecology Project and Alaska Swallow Monitoring Network study swallows and other species of aerial insectivores which are in steep decline at Northern latitudes. Students ages 10-18 partner with ASI scientists through our mentoring and high school internship programs to monitor 150 nest boxes at Creamer's Field and at the University of Alaska Fairbanks campus. These projects build STEM (Science, Technology, Engineering, and Math) literacy, job skills, and career awareness in students, as well as ecological and climate literacy.

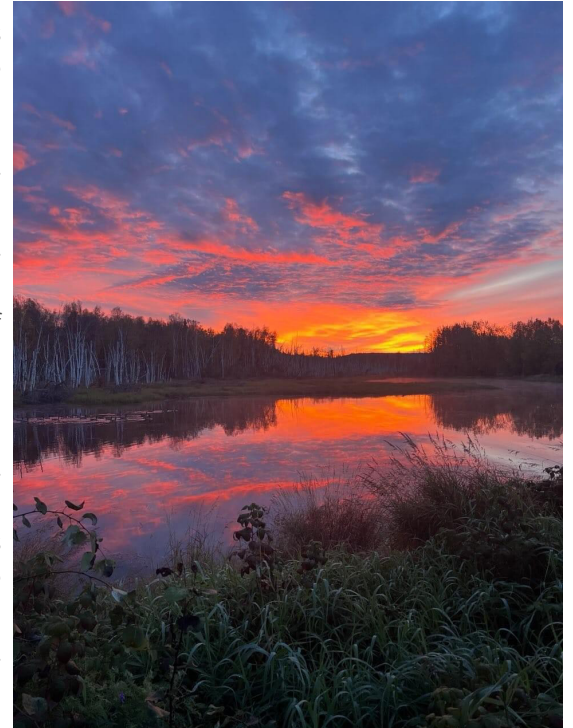
North for Science! is a week-long field expedition for students entering 7th and 8th grade. It is offered collaboratively by ASI, the U.S. Fish & Wildlife Service, the National Park Service, and the Bureau of Land Management. For eight days, students are immersed in an outdoor experience, traveling lands adjacent to the Dalton Highway Corridor, Gates of the Arctic National Park and Preserve, and Yukon Flats, Kanuti, and Arctic National Wildlife Refuges. Activities are designed to help them practice basic camping skills, learn teamwork, and engage in many aspects of field science/research as they investigate firsthand the dynamics of the changing subarctic and arctic ecosystems.

Each year, participants in Fairbanks FeederCount watch their backyard bird feeders and record sightings on three Saturdays throughout the winter. To learn more about this and all of our projects, check out our website at aksongbird.org.

Giving to ASI impacts bird ecology and provides positive experiences and valuable learning opportunities for kids. Your support is vital to our operations, and we would greatly appreciate your gift. Please join me in giving to ASI. There are many ways to support us - visit aksongbird.org/support-us/donate-become-a-member/ to learn more. If you would like to include ASI in your estate planning, we would be happy to discuss a planned gift.

Happy Holidays and here's to a healthy, productive 2025!

Teresa Thompson, ASI Board Member



A highlight of our early morning field hours can be incredible sunrises over our study site, the Seasonal Pond at Creamer's Field! (ASI photo)

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Remembering a superstar volunteer: Mike McCann (1942-2023)

This year, the ASI community came together to honor one of our long-time supporters and friends, Mike McCann. Mike began volunteering at the Creamer's Field Migration Station in 2007 and he was a familiar and friendly face out there for over a decade. Mike also stepped up with logistical and financial support, along with so many encouraging words to help launch the Alaska Songbird Institute in 2013, ensuring that CFMS would continue uninterrupted.

April Harding Scurr, former CFMS project director and ASI co-founder, remembered him this way: *"Mike was famous for bringing donuts, putting cleats on our ski poles, "volunteering" to clean net five of leaves in the fall, and defying probability by extracting more chickadees during a day than anybody else. Mike embodied what so many of our volunteers possess: a gregarious nature, a drive to help, and a generous heart."*

Shortly after the fall banding season, April installed a plaque at the banding station commemorating Mike, and recognizing the contributions of all our volunteers, past and present. Several volunteers also came together to sponsor a net in Mike's memory through ASI's Adopt-a-Net program. We selected Net 30 as the dedicated net this year. We are sure Mike would be happy to know it caught its fair share of chickadees!

A heartfelt thank you to all past, present, and future volunteers at the station. CFMS would not be what it is without you. If you are interested in volunteering at the station, visit aksongbird.org/get-involved/volunteer, or contact Robert at ASI.science@aksongbird.org.



Observing change in Alaska's Migratory Songbirds

By Robert Snowden, CFMS Director

The Creamer's Field Migration Station (CFMS) was founded in 1992. Since that time, Alaska's birds have experienced among the fastest changes in climate of anywhere on the planet. The CFMS dataset now comprises nearly 125,000 records, and within this trove of long-term data, there is great potential to illuminate how our birds have responded to these rapidly changing conditions. One such signal could be observed in the very size and shape of songbirds themselves.



I recently parsed through fall capture records of the ten most-common migratory species caught at CFMS to look for trends in morphology. Focusing on hatch year-aged birds (which constitute the vast majority of our captures), I found evidence of a consistent increase in wing length since 1992. Across species, wing chord measurements have increased by about 0.2 millimeters per decade on average. While this may not seem like much, it amounts to a 1% increase over 30 years, and on an evolutionary scale, it is probably not trivial. It turns out this is a pattern that researchers have observed in songbirds elsewhere in the world. Recent studies of museum specimens collected around Chicago and banding records from the Brazilian Amazon, for example, show a very similar rate of change: just over 1% increase over a four-decade span!

What might be driving this change? Scientists believe climate change plays a role, but by influencing wing shape indirectly: it appears that the actual body size of songbirds is getting smaller while their wings lengthen. A smaller body may be a direct response to a warming climate, as smaller-sized warm-blooded animals tend to dissipate heat more effectively than larger animals. However, flight becomes more energetically demanding the smaller a bird is, so longer wings

may allow "shrinking" birds to maintain sufficient flight efficiency.

So are birds at CFMS actually getting smaller too? The picture is less clear at first glance. Body mass—the closest measure for overall size that we regularly collect—shows variable trends for the ten common species I referred to earlier. Seven species appear to have decreased body mass since 1992, while the other three appear to have increased slightly. The patterns are less strong for some of these species than with wing length, though Yellow-rumped Warblers in particular show a notable decrease: about -0.15 grams/decade, or just under 4%, over time. It is possible a good number of our species are indeed getting smaller, but further investigation is needed. *(cont. on p. 5)*

Studying Swallows under the Midnight Sun

By Tricia Blake, Executive Director

Summertime in Alaska is so many things! Gardening, fishing, river trips, the midnight sun...mosquitoes! For ASI, it means kids studying swallows. This year's Tree Swallow crew was composed of 17 students in grades 5-11, led by two high school graduates from the class of 2024, Melanie McBride and Molly Cable, both embarking on their 4th year with ASI's Tree Swallow project. Mel and Molly proved intrepid leaders as the group monitored 76 nests and banded 464 adult and nestling birds.

So...what exactly are they doing? And why? Our students are building a long-term record of nesting phenology (timing), including lay, hatch, and fledge dates, and the duration of incubation. They are monitoring the number of eggs laid, hatched, and fledged, as well as the average clutch size to track productivity over time. And they are building a record of survival, recruitment, site fidelity, and immigration by tracking the banded birds that return each year. These are called vital rates. Vital rates are demographic parameters that describe how a population changes over time. Understanding vital rates can help us understand how a population is changing and identify which life stages are most important for driving change. This helps us direct conservation efforts to the time and place where it is needed most. They are doing important work.

This year, ASI contributed our Tree Swallow data to two continent-wide projects led by Cornell University, one looking at variation in the phenological sensitivity of lay date, and the other looking at the variation in individual sensitivity and development during temperature extremes. Are there continent-wide differences in resilience and developmental plasticity? Are birds in the far north, where the climate is warming at twice the rate of the lower 48 states, more vulnerable? Our Fairbanks study sites are located at the northern edge of Tree Swallows' range. This means they experience more extreme conditions. Their bodies are larger. And they may be more vulnerable to environmental change.

As an ecologist and educator, one of the very best parts about ASI's mentoring and high school internship programs is not just the practical field research experience kids gain. It's not just the chance to connect deeply with wild birds by watching their lives unfold day by



day, or the sheer magic of having a wild bird in the palm of your hand. It's the discussions we have in the field while we are waiting to capture a bird or walking between sites. We talk about the data we are collecting, and the changes we see. We stop to identify a plant or bug. We ask questions about our observations, and debate ways to answer those questions. We do science! That's what these programs are all about.

Recent analyses of 30+ years of Alaska monitoring data show that obligate aerial insectivores like Tree Swallows are one of the most rapidly declining groups of birds in Interior Alaska's boreal forest. ASI's students are doing something about

it. Day by day, and year by year, they are amassing the only long-term dataset on aerial insectivores in our region. They are gathering data. They are asking questions. They are learning more about a declining species. And they are teaching others about what they are learning.

Three years ago ASI's cohort of high school interns devised an idea to put QR codes on nest boxes along the trails at Creamer's Field. They created a website linked to the QR codes, and each year they have added to this website so that the tens of thousands of people walking the trails at Creamer's Field each year have the chance to learn more about our swallows. Our students have presented at two conferences in the last three years, and they have shared their experience studying Tree Swallows with the Community Climate Archive at the Anchorage Museum.

In 2025-26 ASI will be expanding our youth mentoring and high school internship programs. Our goal is to increase equity, access, and cultural responsiveness in our programs. We will be working in some new locations and engaging with new community partners. Stay tuned for details! If you would like to support this work, please consider a donation to ASI's Future Scientist Fund. Your donation will directly support these unique science education opportunities for middle and high school students in our community.

ASI's Tree Swallow project would not be possible without the incredible dedication of our students who volunteered over 1,153 hours in 2024. Thank you to our crew: Aidan (little), Issac, Caroline, Cami, Mason, Allison, Autumn, Clint, Halfden, Gunnar, Tatum, Iris, Cloe, Lydia, Aidan (big), Dash, Ani, Pauline, and the grown-ups Lily, Laurel, Ken, and Gillie. Very special thanks to our 2024 crew leaders Molly and Melanie for their leadership, patience, tenacity, and smiles.



North for Science! 2024

By Carol Scott, North for Science Founder & Program Coordinator

Our *North for Science!* expeditions began in 2014, when eight fearless middle school aged participants accepted the challenge to leave their devices behind and head north up the Dalton Highway in two vehicles, one courtesy of the National Park Service (NPS), and one belonging to the Bureau of Land Management (BLM). Camping and learning were the goal, with the inaugural expedition funded by an Alaska Geographic Grant, the National Park Service (NPS) and the Bureau of Land Management (BLM). We spent four nights camping at BLM's Marion Creek Campground, filling our days working with scientists and staffers from Fairbanks and the Arctic Interagency Visitors Center in Coldfoot. We then moved further north over Atigun Pass, stopping for a tour of the Wiseman community along the way. While camping three nights at BLM's Galbraith Lake Campground we compared the arctic ecosystem to the boreal forest ecosystem, and spent a day at UAF's Toolik Field Station, hosted by their staff and visiting scientists.

This eight-day experience had a profound impact on its participants, and we have been able to head north in June seven times since, only missing a few years due to the COVID-19 pandemic. The Alaska Songbird Institute took over management of the program in 2016, which was also the year the U.S. Fish and Wildlife Service (USFWS) joined as an additional partner. Today, ASI provides program coordination, including leadership staff, supplies, recruitment, outreach, communication, and other support services. Our federal partners provide additional trip leaders, vehicles, safety equipment, food, and supplies. The makeup of each partner's contribution has varied year by year, but the trip has always been a smashing success, earning rave reviews from participants and staff alike. The science we engage in depends on who is working in the area each year. We have investigated migratory songbirds, fire ecology, hydrology, water quality, geology, botany, telemetry, and small mammal trapping. We've gathered data annually for a long term NPS snowshoe hare study, and our visit to Toolik Field Station is eagerly anticipated each year. Other



activities include meeting with park rangers and wildlife troopers, practicing bear safety, and service-learning projects such as repairing trails and creating materials for public outreach. Altogether, these experiences help students increase their understanding and confidence in Alaska's wild public lands, and they learn about the myriad career opportunities available in these areas. They learn that science can be more than a classroom.

This past June we were able to take a record ten 7th and 8th grade participants, as our agency partners were able to offer the staffing and vehicles to make this happen. We are grateful to BLM for providing multi-year support for ASI's participation. However, looking ahead, we know we need to build a *North for Science!* fund to sustain essential components, including the program coordinator, into the future. We also aspire to create a high school experience that would allow our *North for Science!* alums (and others) to continue pursuing their interest in active field science. We are looking for ideas for a unique annual *North for Science!* fundraising endeavor. If you have ideas, or would like to get involved, contact Carol Scott, Program Coordinator at north4science@aksongbird.org. You can help make this unique program happen for more of our Interior kids!

As always, a huge thanks to our North for Science partners at BLM, NPS, and USFWS. This amazing program is not possible without you!



Photos at left from top to bottom: Working on songbird identification at Galbraith Lake. A participant tries his hand using telemetry to locate a radio collar hidden nearby. A visit to Toolik Field Station is a highlight for all!

Photo above: Setting up camp in good weather at Galbraith Lake campground is always a treat!

Meet Nick, ASI Outreach & Development Coordinator



By Nick Taubenheim, Outreach & Development Coordinator with AmeriCorps VISTA

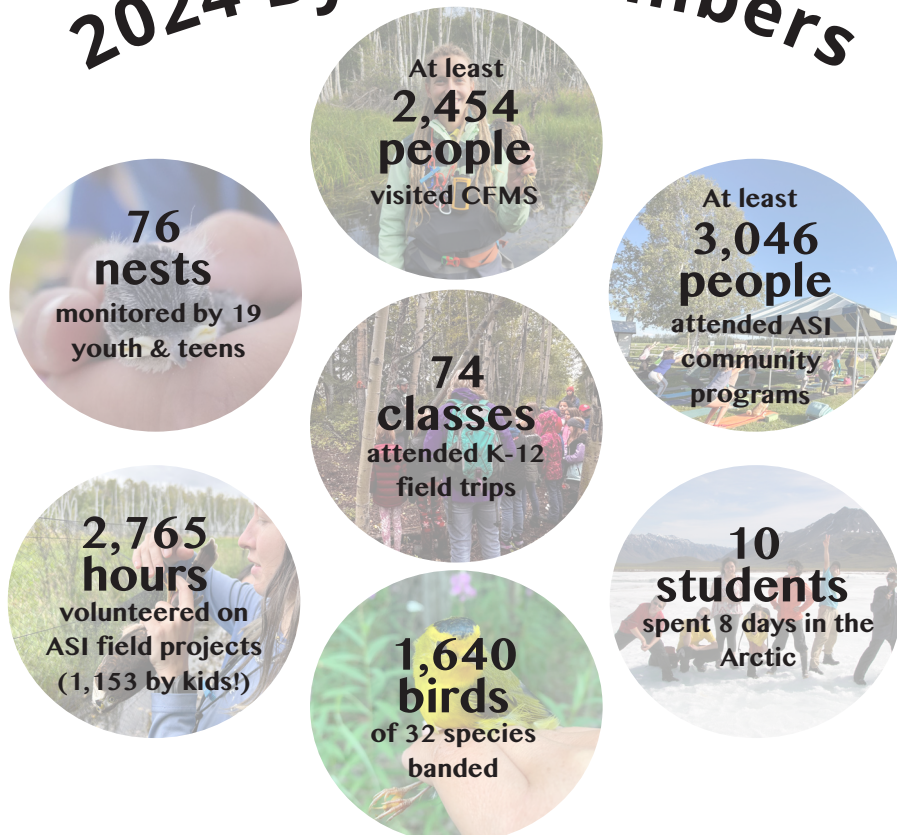
I arrived in Fairbanks in late August, just in time to see the cranes congregating at Creamer's Field. Flying eleven hours from the East Coast, I had never stepped foot in Alaska before. But the opportunity to spend a year working with ASI was worth the journey. This year I'll be working to develop ASI's communication and outreach strategies. I'm aiming to increase our membership and donor base so that we can expand our educational programs in the future. I'm also looking for ways to engage underserved communities in our work in order to build the strongest and most diverse group of conservationists possible. This involves building partnerships with local schools to expand and develop ASI's mentoring, internship, and *North for Science!* programs. It also involves creating online educational resources to make ASI's work more accessible. In February, I'll be collaborating with our Educator to create a Communications and Outreach Committee to oversee our strategy in this area. If you or anyone you know has communications expertise and would like to serve on the committee, please don't hesitate to reach out! So far, this work has been very rewarding, and I'm looking forward to helping ASI strengthen its community connections this coming year.

You can reach Nick at: VISTA@aksongbird.org

(Observing Change in Migratory Songbirds, continued from page 2) Not surprisingly, body mass can vary considerably within individual birds even over the time scale of several days, especially during migration when their weights may rapidly fluctuate as they build or deplete fat reserves. That said, changing body mass on the population level over the years may not only be a direct response to warming temperatures; it could also signal other factors like a change in local food resources affecting body condition.

This quick morphology snapshot illustrates the potential of our decades-long body of data to answer questions about how birds are responding to a changing world. Our banding data is especially valuable as a window into the ecology of boreal birds, given that CFMS is the northernmost monitoring station of its kind on the continent. Over the years, this data has contributed to a number of research publications ranging from analyses of migration timing to studies of disease transmission. Whether we dive deeper into questions of body size further, or continue to explore other topics, we are eager to build upon our project's research legacy and welcome collaborators to tap into our rich dataset and help us learn more about changes and threats our migratory birds encounter.

2024 By the Numbers



ASI's mission is to conserve Alaska's boreal birds through ecological education and research. We are proud to continue the community-based science tradition started by the Alaska Bird Observatory on Creamer's Refuge over three decades ago. Sometimes called participatory science, this model involves people throughout the scientific process. It is not always easy! It takes time to train and organize volunteer field crews. (And there are extra challenges when your field crew is still in elementary school!) But we wouldn't have it any other way. With your help, we are building rare and increasingly valuable datasets on birds in Alaska's boreal forest. Many songbird species are in steep decline, and they need our help. Thank you for tackling this challenge with us, as a community, at the local level.

ASI's membership is our largest revenue source. You can make a difference. Membership is good for one year from your donation date. Check your expiration date on the mailing label. If you would like to renew, or make an additional donation, return that portion of the newsletter, or visit aksongbird.org and click **Support Us**. You can renew your membership, give to a particular project, or even fund a student scholarship. Thank you!



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A heartfelt thanks to all our volunteers, generous members, advisory and planning committee members, and all who donate through Pick.Click.Give and other local giving programs. Special thanks to the Frequent Flyers, our generous community of sustaining monthly donors.

Like the birds we study, ASI's 2024 supporters hail from at least 24 communities all across Alaska from Utqiagvik to Nome to Hooper Bay to Hoonah, and so many places in between. We are also honored to have support from at least 17 states across the U.S. You are a diverse group, united by your commitment to conserving Alaska's wild birds and their habitats.

Thank you!

- Donate to the Creamer's Field Migration Station
- Donate to ASI's Future Scientist Fund
- Use my donation where it is needed most

