



"Bringing back Bluebirds for Future Generations!"

Bluebird News



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Light Pollution and Wildlife

By Virginia Windschitl with information from Dark Sky International

Light pollution, the excessive or inappropriate use of outdoor artificial light, is affecting human health, wildlife behavior, and our ability to observe stars and other celestial objects.

Todd Bulet, president of Starry Skies North, talked to our 2024 Expo about light pollution.

Starry Skies North is dedicated to protecting our night skies In Minnesota, Wisconsin, Iowa, North Dakota, South Dakota, Michigan, parts of Canada, and beyond! It is a chapter of Dark Sky International. Some of the topics he discussed included:

- Research suggests that artificial light at night (especially blue light) can negatively affect human health, increasing risks for obesity, depression, sleep disorders, diabetes, breast cancer and more.
- Lighting levels that are higher than necessary and light that shines when and where it's not needed is wasteful. Wasting energy has huge economic and environmental consequences.
- There is no clear scientific evidence that increased outdoor lighting deters crimes. It may make us feel safer, but it has not been shown to make us safer.

Of special interest to BBRP members was the information about how light pollution can harm wildlife and ecosystems.

Light Pollution Can Harm Wildlife

Dark Sky International reports:

"For billions of years, all life has relied on Earth's predictable rhythm of day and night. It's encoded in

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the DNA of all plants and animals. Humans have radically disrupted this cycle by lighting up the night.

Plants and animals depend on Earth's daily cycle of light and dark to govern life-sustaining behaviors such as reproduction, nourishment, sleep, and protection from predators.

Scientific evidence suggests that artificial light at night has negative and deadly effects on many creatures, including amphibians, birds, mammals, insects, and plants."

The National Park Service (NPS) has made maintaining a dark night sky a priority in its parks.

Artificial lights disrupt ecosystems

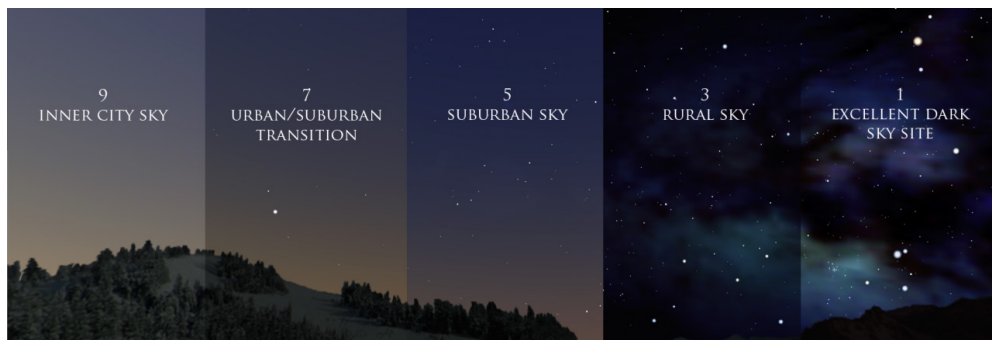
Christopher Kyba started working on remote sensing data measuring light pollution in 2009, and he currently researches light pollution and sustainable lighting solutions in Germany. He has helped develop several global crowdsourced science projects to study the spread of light

pollution from the ground.

Nocturnal animals sleep during the day and are active at night. Light pollution radically alters their nighttime environment by turning night into day. According to Kyba, for nocturnal animals "the introduction of artificial light probably represents the most drastic change human beings have made to their environment."

"Predators use light to hunt, and prey species use darkness as cover," Kyba explains. "Near cities, cloudy skies are now hundreds or even thousands of times brighter than they were 200 years ago. We are only beginning to learn what a drastic effect this has had on nocturnal ecology."

Light Pollution and Wildlife Continued...



The Bortle Scale - Source: IDA Tumblr

Glare from artificial lights can also impact wetland habitats that are home to amphibians such as frogs and toads, whose nighttime croaking is part of the breeding ritual. Artificial lights disrupt this nocturnal activity, interfering with reproduction and reducing populations. Newly hatched turtles need a dark night sky to orient themselves toward the sea, but artificial lights behind beaches lure them away.

In natural settings, blue light at night has been shown to adversely affect wildlife behavior and reproduction. This particularly true in cities, which are often stopover points for migratory species.

Artificial lights have devastating effects on many bird species

Birds that migrate or hunt at night navigate by moonlight and starlight. Artificial light can cause them to wander off course and toward the dangerous nighttime landscapes of cities. Every year millions of birds die colliding with needlessly illuminated buildings and towers. Migratory birds depend on cues from properly timed seasonal schedules. Artificial lights can cause them to migrate too early or too late and miss ideal climate conditions for nesting, foraging, and other behaviors.

“A study of blackbirds (*Turdus merula*) in Germany found that traffic noise and artificial night lighting causes birds in the city to become active earlier than birds in natural areas—waking and singing as much as five hours sooner than

their country cousins.” (National Geographic.org)

Insects Also Affected

Many insects are drawn to light, but artificial lights can create a fatal attraction. It’s estimated about one third of the bugs swirling around those lights die by morning, either by being eaten by predators or simply from exhaustion. Declining insect populations negatively impact all species that rely on insects for food or pollination. Some insectivores exploit this attraction to their advantage, affecting food webs in unanticipated ways.

“Sky glow is the brightening of the night sky, mostly over urban areas, due to the electric lights of cars, streetlamps, offices, factories, outdoor advertising, and buildings, turning night into day for people who work and play long after sunset. ... There are three other kinds of light pollution: glare, clutter, and light trespass. Glare is excessive brightness that can cause visual discomfort (for example, when driving). Clutter is bright, confusing, and excessive groupings of light sources (for example, Times Square in New York City, New York). Light trespass is when light extends into an area where it is not wanted or needed (like a streetlight illuminating a nearby bedroom window). Most outdoor lighting is poorly positioned, sending wasted electricity up into the sky.” (National Geographic.org)

What Can We Do?

Some of the tactics and actions you can take to help immediately are provided below:

- Use only fully shielded fixtures for outdoor lighting so light shines down, not up.
- Use only the right amount of light needed. Too much light is wasteful and harms wildlife.
- Install timers and dimmer switches and turn off lights when not in use. For security lighting use motion sensors.
- LEDs and compact fluorescents (CFLs) can help reduce energy use and protect the environment, but only warm-colored bulbs should be used.
- Switching to LED lighting allows for reduced illuminance without compromising visibility.
- Unnecessary indoor lighting — particularly in empty office buildings at night — should be turned off. This will help prevent leakage of interior light into the night sky.
- The use of blue lights at night should be avoided: Outdoor lighting with strong blue content is likely to worsen sky glow because it has a significantly larger geographic reach than lighting consisting of less blue.
- DarkSky recommends that only warm-appearing light sources be used for outdoor lighting. This includes low-pressure sodium (LPS), high-pressure sodium (HPS), and low-CCT LEDs.
- Color temperature of 3000 K or lower to minimize blue (cool) light.
- Work with your neighbors and local governments to reduce light pollution.

Light Pollution and Wildlife Continued...



A 2003 electrical blackout in the Northeast of the U.S. affected 55 million people. It also showed us what we're missing in our normally light polluted environments. Credit: Todd Carlson

Light pollution is a global issue. This became glaringly obvious when the World Atlas of Night Sky Brightness, a computer-generated map based on thousands of satellite photos, was published in 2016. Available online for viewing, the atlas shows how and where our globe is lit up at night. Vast areas of North America, Europe, the Middle East, and Asia are glowing with light, while only the most remote regions on Earth (Siberia, the Sahara, and the Amazon) are in total darkness.

Sources:

- <https://darksky.org/resources/what-is-light-pollution/light-pollution-solutions/lighting/>
- <https://starryskiesnorth.org/what-is-light-pollution>
- <https://education.nationalgeographic.org/resource/light-pollution/>

Photo and graphic from:
<https://darksky.org/resources/what-is-light-pollution/>

Introducing BBRP Regional County Coordinators

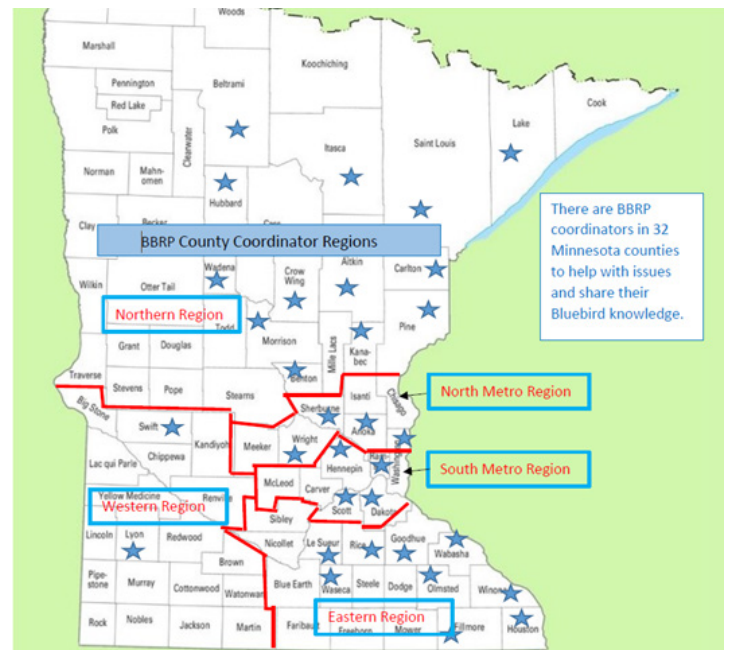
With the passing of Carrol Johnson, BBRP lost its State Coordinator. In that role he frequently interacted with county coordinators. He stayed connected to state and community leaders to gain awareness of events that were good for BBRP to attend throughout the state.

As the BBRP Board discussed filling the role, they came to the realization it wasn't feasible for one individual to undertake this responsibility as it continues to grow with our goal of doing more community outreach each year. At the 2024 Expo County Coordinator's meeting the idea of having Regional Coordinators rather than a State Coordinator was suggested.

Over the summer the Board decided to contact County Coordinators who have been very active in their counties by attending several events and engaging coordinators in surrounding countries to do the same. Simultaneously an analysis of membership and event demographics by county led the board to develop a regional division map, which can be seen below.

Following that step a county coordinator and an assistant was selected for each region: in the Northern Region it's Mike Fulford in Morrison Co assisted by Jeanne Olsen in Pine Co; in the Southwestern Region it's Cindy Sabinske in Lyon Co assisted by Bill Hoberg in Swift Co; in the North Metro Region it's Richard Sherva assisted by Jeanne Wilkinson in Anoka Co; in the South Metro Region it's David Schmidt in Dakota Co assisted by George Brown in Ramsey Co; and in the Southeastern Region it's Wally Swanson in Waseca Co assisted by Brianna Frisch in Winona Co.

As we think about 2025 and review events attended in 2024, the Regional Coordinators will be working with the Board and the other County Coordinators in their region to create a plan for the new year.



Please help us support the Regional Coordinators by sending them information about a festival or event happening in your area. Their phone numbers and email addresses can be found on the BBRP website at <https://bbrp.org/county-coordinators-2019/>.

Tidbits

This was received from members David & Diane Peterson in Thief River Falls with their trail report:

Hi, Here's an exciting thing to include in your next Bluebird News edition. Simply suggest that readers participate in the yearly Great Backyard Bird Count.org.

Date is **Feb. 14-17, 2025**. It's super easy to do, and does it ever brighten your mood in the still of winter!

Expo Silent Auction Reminder

Cynthia Sabinske is handling our Expo silent auction again next spring. Member donations are appreciated so be on the lookout for silent auction items. Also, cash donations are welcomed to purchase items for the silent auction. Contact Cynthia at cynthia.sabinske@gmail.com if you have questions. Cindy says "Anything you'd find of interest will work for our eclectic selections!!"



From Teri Brown, I am a BBRP member in Wabasha County. My husband Steve Brown took these photos at our home in Lake City, MN.

19th Annual SE MN Bluebirders' Picnic

On Saturday, September 23, twenty people gathered at the home of Bill and Mary Bailey to relax, enjoy a potluck meal, and recap the bluebird season. The weather cooperated and everyone sat at tables under the covered porch to visit and enjoy nature. After lunch, Bill led some of the group on a hike on part of the Bailey Sanctuary bluebird trail and around one of the wetlands and through a timber management area, explaining the significance of the work he is doing there and the markings he has placed on the trees.

We are all looking forward to the 20th picnic next year.

Bluebirders enjoy lunch on the covered porch at the Bailey Sanctuary during the 19th Annual SE MN Bluebirders' Picnic.



Migrating Bluebirds at Sanctuary Prescribed Burn

Every major project has its sidewalk superintendents, and the first prescribed burn at the Bailey Wildlife Sanctuary in rural Chatfield was no exception. Migrating bluebirds were present before and after the burn.



Burn Crew assembles for organization and planning before the prescribe burn at the Bailey Sanctuary

On Saturday, October 26, Bill and Mary Bailey held the first prescribed burn on a meadow area, just above their house. A fully trained crew, including Bill and Mary, assembled in the morning and followed the instructions of burn boss, Steve Winter of Winona, and carefully burned some of the designated area. With atmospheric conditions just right, the land was burned to provide better habitat for some of the birds and to improve the grasses and wildflowers there. Seeding will take place later. Grasses growing under the fire area hindered some of the burn, so the additional area proposed for the burn may take place after a hard frost if there is no snow.



First Ignition at the burn site.

Overseeing this were three pairs of migrating bluebirds who perched on the posts of the boxes removed for the duration of the burn. They were there just before ignition and returned after the fire was out, perching again on the boxes that were returned to the posts. This just reinforced the wisdom of leaving boxes up year round.

Ronald G. Guck Remembered



[I featured Ron Guck just last fall in my "Editor's Corner" of our newsletter because he was the 2022 Bluebirder of the Year. Our condolences to his family. BBRP has received several donations in memory of Ron including a very generous one from Mike & Lisa Vonderharr. Thank you!]

Ronald George Guck, age 85 of Hastings, passed away peacefully surrounded by his family. His Mass of Christian Burial was on Tuesday, October 29, 2024.

Ron was born on a farm in Bluffton, MN. He graduated

from New York Mills, class of 1957. He proudly served his country for two years in the U.S. Army. He married Deian Schwartz on September 10, 1960 in Bluffton. They presided in Wadena, Minnesota for 11 years, then moved to Hastings where they have lived for 53 years.

He drove semi-trucks for Cenex, Alliant Foods, and also milk trucks. After retirement, he worked 25 years at Bellwood Golf Course where he had one of his bluebird trails.

Ron's hobbies included bowling, fishing in Alaska, deer, turkey and wild hog hunting in Texas and Minnesota.

He was a KC member for over 50 years, helping manage the hall and being a member of the board for 20 years. Ron also helped at the Hastings Family Service for 25 years. He belonged to BBRP for 22 years and 6,803 birds fledged from 200 blue bird houses that he personally built.

Updates

2025 Expo Update

From Expo Chair Nancy Engel -

Next year's EXPO will be held in Red Wing at the Red Wing High School on Saturday, April 26th from 9am-4pm. We've got some terrific speakers lined up for us and I'm currently looking for exhibitors. If you know of any good nature/bird/environmental groups that might be interested in hosting a table, please let Nancy Engel know. April will be here before we know it, right?

2025 Reporting Update

From Chairperson David Schmidt -

Comparing 180 reports from 2023 with 2024 for the same individuals we are down 1.7% chicks fledged in 2024. Trail report anecdotal comments indicate first nesting was good, however numerous losses reported during second nesting. Chicks dead in nest box, even some adults. Speculation is they unable to find adequate food during all the rain. Not sure about the predation of adults.

August Hoffman's Second Nesting by Mary Bailey



Bluebirders come in all sizes; and, I must admit, this one is one of my favorites. Young August Hoffman, of rural Chatfield, with the help of friends and family, installed bluebird boxes at this home in 2020. He had bluebirds last year, but this year he has been fortunate to have a second nesting.

August Hoffman helping his father John start his bluebird trail in 2020.

Time to Report Your 2024 Results

Trail Reports Are Important!

Both individual and trail reports are vital to our organization. When the data is gathered and analyzed, it allows us to know the health of our bluebird population. It tells us where we have been successful and where we need to do more work. We need to know your statistics whether you have one nest box or a whole trail, whether you fledged hundreds of chicks, or none at all. Please take the time to completely and accurately fill in your trail report form(s). Complete a separate form for each trail you are reporting on.

Reports are due by December 31, 2024

To report your results go to our website: <http://bbrp.org>/ Click on 2024 Trail Reporting Forms.

You can either fill out the online report form or download a printable version to mail in.

Mail Report form to: Wally Swanson, 128 South Buchanan, Waterville, MN 56096.

Questions call Wally @ 507-362-8760.
Email: dendroica55@gmail.com



Need help or have suggestions? Call your County Coordinator!

If you are an active bluebirder, and would like to donate some of your time to help others help the bluebirds, the BBRP is looking for more county coordinators. If interested, email us at info@bbrrp.org for more information.

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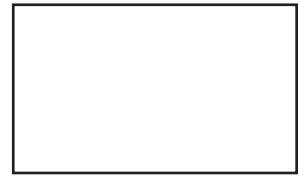
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UPCOMING EVENTS

February 20, 2025 - February 23, 2025

Port Aransas Whooping Crane Festival

Port Aransas Civic Center, Port Aransas, TX

March 1, 2025 - March 31, 2025

Nebraska Crane Migration

Crane Trust Nature & Visitor Center, Wood River, NE

March 7, 2025 - March 9, 2025

International Festival of Owls

Houston High School Houston, MN

April 26, 2025

BBRP Expo, Red Wing, MN

May 15, 2025 - May 17, 2025

28th Annual Detroit Lakes Festival of Birds

Our Mission:

"To encourage, inspire, educate and assist individuals and organizations to become actively involved in the restoration and preservation efforts to sustain a healthy and expanding population of bluebirds and other native cavity nesters."



Photos by Ardy Murphy

Thank you to everyone who wrote articles or provided photographs for this publication of the Bluebird News.