



"Bringing back Bluebirds for Future Generations"

Bluebird News



Volume 27 Issue 3

Summer 2017

"Bluebirds are not actually blue" by Virginia Windschitl

The colors of birds are often caused not by pigment, but by the way light waves interact with the feather. This is called "structural color."

Structural coloration means the production of color by microscopically-structured surfaces fine enough to interfere with visible light, sometimes in combination with pigments. Peacock tail feathers are pigmented brown, but their structure makes them appear blue, turquoise and green. The greens of some parrots are the result of yellow pigments overlying the blue-reflecting characteristic of the feathers. Structural coloration can produce the most brilliant colors, often iridescent. The gloss on the plumage of birds such as mallard ducks, grackles, indigo buntings, and bluebirds and the colors of many beetles and butterflies, and shells such as of pearl oysters and nautilus, are created by structural coloration.

This was first described in the 19th century. In his 1892 book *Animal Coloration*, Frank Evers Beddard (1858–1925) acknowledged the existence of structural colors:

"The colours of animals are due either solely to the presence of definite pigments in the skin, or ... beneath the skin; or they are partly caused by optical effects due to the scattering, diffraction or unequal refraction of the light rays. Colours of the latter kind are often spoken of as structural colours; they are caused by the structure of the coloured surfaces. The metallic luster of the feathers of many birds, such as the humming birds, is due to the presence of excessively fine striae upon the surface of the feathers."

Like paints, pigments are chemical compounds that absorb certain wavelengths of light while reflecting others. If the color is caused by a pigment and you grind up the feather, the powder will still retain the color. A feather from a cardinal will produce red powder and a yellow

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finch feather will produce yellow powder. If you grind up a shiny feather from an indigo bunting or a bluebird the color will disappear and all you will have will be a dull brown.

Because of the layered structure of the feather, light waves entering it bounce back at different times and thus collide, or "interfere" with each other. Certain wavelengths get cancelled out while others become reinforced. The reinforced colors that come back strongly to your eye are mostly in the blue range. Because blue light has very short wavelengths, it is reflected more easily than other colors of light with longer wavelengths. The result is that eye-catching display of blues, greens, and iridescence. Sometimes the feathers have air pockets, which allow them to reflect only one color at a time while absorbing all the others. In white feathers there is no pigment and the feather structure reflects back the whole spectrum.

In bluebirds the color we see is the light reflecting off their grey/brown feathers. This is the reason why a bluebird in heavy shade will not look blue.

Another interesting fact I learned recently is that the feather structures of many species also reflect light in the ultraviolet range.

Birds have four color cones in their eyes (compared to three in humans) which allow them to see the ultraviolet part of the color spectrum. Many species where the male and female appear the same to us have markings that can differentiate the sexes that the birds can see that we cannot.

One pigment in birds is melanin. This is the same pigment that we have in our skin and hair. Colors resulting from melanin include: black, gray, dark brown, light brown, brick red, dull yellow, and tan. Black or dark colors are especially prevalent on birds' flight feathers.



Photo by Doris Glander

“Bluebirds are not actually blue” by Virginia Windschitl Continued

Melanin is very strong and a concentration of this pigment allows these hard-working feathers to better resist wear and tear.

Albino birds are the result of a complete absence of melanin.

White birds with melanin pigments in their eyes and skin are known as leucistic, not albino. An albino Red-winged Blackbird has white feathers, pink eyes, and normal, bright patches of red and yellow on its wings – colors produced by carotenoids. Another less common plumage abnormality is melanism, in which excess melanin occurs, producing black feathers that normally would be another color. (See the link at the bottom of this article for more information on abnormal coloration.)

The vibrant colors of many birds aren't produced by the birds themselves, but by what they eat. The carotenoid pigments of seeds and berries are what give the yellow, red and orange colors of many birds. Flamingos and roseate spoonbills are pink because of their diet of shrimp and algae high in carotenoid pigments. In zoos flamingos are fed a commercially prepared diet high in carotenoids so they keep their rosy color. Newly hatched flamingos are grey.

If you kept a colorful wild bird like a cardinal in captivity and fed it just one type of seed, its feathers would become progressively duller with each molt.



Porphyrins, the third pigment group, are found in only a few birds and are produced by modifying amino acids. Although the exact chemical structure of each porphyrin differs, they all share a common trait. They fluoresce a bright red when exposed to ultraviolet light. Porphyrins produce a range of colors, including pink, browns, reds, and greens. Porphyrins are found in some tropical birds, owls, pigeons and gallinaceous species.

We appreciate the beautiful color of the Eastern Bluebirds and so do the females. Male bluebirds that are brighter blue because they reflect more ultraviolet light have greater breeding success than their paler counterparts.

Henry David Thoreau said “The bluebird carries the sky on his back.” It is true because it takes sunlight for us to see its beautiful brilliant blue color.

And here is another quote about the bluebird's color by John Burroughs “When nature made the blue-bird she wished to propitiate both the sky and the earth, so she gave him the color of the one on his back and the hue of the other on his breast.”

Interesting article about abnormal coloration in birds:
<http://www.sibleyguides.com/2011/08/abnormal-coloration-in-birds-melanin-reduction/>

Miscellaneous Editor's Notes

- The BBRP board met for a meeting at Bill & Mary Bailey's house near Chatfield. Thank you, Mary and Bill, for sharing the beautiful view from your porch and your hospitality.
- When you turn in your annual nesting reports comments are appreciated to see trends. Here are some comments made at the meeting:
- Carrol Johnson warned **that the wild parsnip plants are less visible now that their yellow flowers have turned to brown seedheads, but they are still dangerous and will cause skin rashes.**
- Lots of second nestings.
- Lots more chickadees in nest boxes.
- Gnats came late but were very deadly. It was suggested to start spraying the nestbox with vanilla even before eggs have hatched to be proactive and to spray every other day after birds have hatched.
- Strange weather again this spring, hot then cold and wet.
- Someone mentioned problems with chickadees or woodpeckers making holes in the wooden bottoms of PVC houses and that it can be solved by putting tuna cans or covers on the inside bottom of the nestbox. They are just the right size. (or cat food cans)
- Carrol Johnson found information about a Bluebird Week, the 3rd week in June in an old publication. (From what I found, Governor Perpich declared a Bluebird Week in 1987, but could not find anything about it becoming an annual event.)

"SUCCESS IN AN URBAN SETTING" By Marlys Shirley

What happens when a persistent and patient city dweller gets interested in attracting bluebirds to his urban yard? This is the story of Clarence Rothfork who lives in Burnsville, MN! Clarence contacted his BBRP county coordinator in 2010 about wanting to purchase a pair of PVC nesting boxes. Glen and Marlys Shirley drove to his home to help site them as best possible in the yard space available. Think like a bluebird! No bluebirds appeared that first year, he saw one in 2011, but it didn't nest, but come spring 2012 Clarence was ready with the bluebirds' favorite treat – mealworms! He was thrilled when bluebirds showed up and decided his nest box was home! Watching the progress through nest building, laying the blue eggs, and watching the chicks grow was more than rewarding for the daily offerings of mealworms! Family and neighbors could enjoy a most unusual experience close up. Clarence phoned to excitedly report the birth of his second nesting of four chicks! He'd successfully fledged 10 bluebirds in his third year of urban bluebirding efforts!

Clarence says he gets his mealworms out early in spring so the birds can find something to eat. He suggests live mealworms when attracting bluebirds for the first time. Now he uses dehydrated worms and sprinkles them with calcium carbonate to keep egg shells strong. He gets this at his local grocery coop. The birds love it. He feeds mealworms into the fall, and one day was rewarded by seeing seven out there enjoying their treat! This year his first phone call reported two nestings of five each, and as of July 20 his happy bluebird family is on its third nesting of four eggs "and", says Clarence, "maybe FIVE by tomorrow!" He now has a friend in the neighborhood interested in trying his luck. Perhaps one of Clarence's broods will find its nesting site there next spring! Kudos to Clarence for finding and sharing the joy of having our jewels of blue in an urban setting!!

New Members

Larry Foster -----Lake City MN	Gilbert Johnson -----Faribault, MN
Harvey & Mary Krage -----Minnesota City, MN	Ted Frey -----Northfield, MN
Michelle Grabowski -----St. Paul, MN	Stuart Powers -----Richfield, MN
Scott Lehmann -----Winnebago, MN	John Backowski -----St. Michael, MN
Tom Crawmer Sr -----Elysian, MN	Jay & Jodie Little -----Dundas, MN
Dr. Darren Roemhildt -----Owatonna, MN	Karen Sundal Bartz -----Austin, MN
Tom Vosberg -----Northfield, MN	Jim Stiles -----Austin, MN
Nancy Pumper -----Northfield, MN	Heath Anderson -----Austin, MN
Margo Squire -----River Falls, WI	Marion Heinz -----Henderson, MN
Kim Luke -----Northfield, MN	Jerry & Sheila Kahlert -- --Inver Grove Heights, MN
Eric Haines -----Northfield, MN	Dennis & Peg Kerber -----Corcoran, MN
Bruce & Ann Dybvik -----Northfield, MN	Marilyn Matson -----Spring Valley, MN
Maria Bohl -----Northfield, MN	Claire Olson -----St. Paul, MN
Mike & Wanda Playter -----Northfield, MN	Gilbert Ross -----Faribault, MN
Greg & Deeann Lufkin -----Northfield, MN	Janet Springer -----Owatonna, MN

Thank You:

A donation to BBRP has been made in memory of Tim Frazee of Fremont, IN, who passed away recently. He is remembered as a long-time friend and former Indiana "lake" neighbor of Mary Bailey and her late husband, Leonard Suttinger.

Trail Reports Are Important

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 fledged hundreds of bluebirds or none at all.

Please take the time to completely and accurately fill in your trail report form.

Reports are due by **Sept 15th, 2017**

To report your results online go to our website: <http://bbrp.org/>

Click on **2017 Report Forms**

Click on **2017 Online Report Form**

If you prefer to send your report by mail you can print out a report form from our website or use the form below. Mail Report form to: Wally Swanson, 128 South Buchanan, Waterville, MN 56096

Questions call Wally @ 507-362-8760. Email: swansonw@frontiernet.net

Name

Street Address

City

State

Zip Code

County

Single Boxes Monitored

Pair Boxes Monitored (2 boxes-15ft apart = one pair)

Number of Eggs Laid?

Number of Eggs Hatched?

Number of Birds Fledged?

Are you a Member of the Bluebird Recovery Program ? Yes No

Email Address:

Phone Number:

Comments :

"For the Love of Bluebirds" by Doris Glander

Both my husband Arly & I love taking pictures of the birds. We have 5 acres near Randolph, MN. A couple of the acres have old trees and that attracts a variety of birds. We look forward to seeing them each spring and we write down when they arrive & when they leave for warmer climate. Our favorites, though, are the Bluebirds.

We got interested in bluebirds in 2010. We always attended the Steam Show in Dundas and Keith Radel & Carrol Johnson had a booth there. We stopped & started talking about birds and found it very interesting and informative and thought we should give it a try. With the information on how to install a nest box the proper way, we were lucky to attract a pair. We keep in contact with Keith and he has provided us with answers when we have questions about taking care of the Bluebirds.

We provide dried meal worms in a dish on the fence. They watch from the trees when the dish gets filled, wait till they think it's safe and fly down to take some to feed the young ones. Now the young ones are coming here on their own and the parents have started another nest and have 5 eggs in it.

Last year for the 1st time we had a second pair of Bluebirds nest, they had 2 batches of young ones. We were fortunate to have a pair return. Wish we knew if they were the same pair. Also, last year we asked a neighbor if we could put a few houses up on his land, and this year we have a pair nesting in one of those.

Watching the birds and taking pictures is something we enjoy.

(Enjoy her photos below)



BBRP Awards List

We need your help in updating our information on BBRP State Awards that were given out at our Expos. No organized records were kept and no current board member has access to all of the old newsletters. Marlys Shirley and Dorene Scriven were able to compile an incomplete list. Can you add to our list? Please include some kind of documentation, such as a photo of the award or an item from an old newsletter. Please contact Marlys Shirley, our secretary, gshirley@frontiernet.net (27010 Hamburg Ave., Farmington MN 55024) if you have any additions or corrections.

DICK PETERSON AWARD

The Bluebird Recovery Program (BBRP), a committee of the Audubon Chapter of Minneapolis, began in 1979. This award honors pioneer bluebirder Dick Peterson who did much experimentation with his Peterson bluebird box to make nesting successful. Dick Peterson passed away May 4, 2000. The criteria for the award are: Member of BBRP, contributions to BBRP above and beyond expectations. These awards are given ON the year the board designates the recipient. This is not necessarily given out every year so there may be gaps (BYE years).

First Recipients – Jan and Dave Ahlgren (no date)

Marlys and Dick Hjort (no date)

Jackie and Peter Meyer (no date)

2004 – John Thompson

2005 – Keith Radel also reported to have been 2003, so clarification needed

2006 BYE

2007 – Don Mahle and Carol and Dave Fiedler

2008 – Steve Gilbertson (in 2-13-08 minutes)

2009 – Al and Alice Lauer (in 2-25-08 minutes & Sept. 2009 newsletter)

2010 – Carrol Johnson (verified as 2010 but awarded at 2011 expo, per June 2011 newsletter)

2011 – Marlys Shirley (verified as 2011 but awarded at 2012 expo, per June 2012 newsletter)

2012 – Fern Vesledahl (verified as 2012 but awarded at 2013 expo, per June 2013 newsletter)

2013 –

2014 – BYE (in minutes of 3-20-14)

2015 – John Doherty (Spring 2015 newsletter)

2016 – JENean Mortenson (Spring 2016 newsletter)

2017 - BYE

BLUEBIRDER OF THE YEAR AWARD

The purpose of this award is to reward those whose bluebirding skills have resulted in the greatest percentage of fledglings per location. The criteria for the award are: BBRP Member, 10 or more locations of nest boxes for the season, best % of season's fledglings per location, award can be received only once every five years. This award is for the PREVIOUS season's work by the recipient and given out at the following year's Expo in April.

FIRST: 2003 – Carrol Johnson 11 sites, 5.8 %

2004

2005

2006

2007 – John Beal (Rice Co., Steele Co.) 156 birds from 24 sites = 6.5 per location

2008 – Bill Krinke, Echo MN, 81 birds from 14 pairs of boxes = 5.79 per location

2009 – Jerri Pelkey

2010 – George Brown (Co.) 80 birds/11 pairs of nestboxes = 7.27 birds per location

2011 – Moe Brand (Maureen) (Rice Co.) 164 birds/23 pairs of boxes = 7.13 birds per location

2012 – Mike Jeresek (Fillmore Co.) 9.58 birds per location

2013 – Marlys Shirley (Dakota Co.)

2014 – Mike Jeresek (Fillmore Co.) 241 birds from 40 singles =

2015 – Loren Murphy (Rice Co.) 1255 birds/185 pairs, 8 single = 6.5 fledglings per location

2016 – Margaret Wurm (Sterns Co.) 89 birds/12 pairs of boxes = 7.41 birds per location

**12th ANNUAL SOUTHEASTERN MINNESOTA
BLUEBIRDERS' PICNIC**

DATE: Saturday, September 16, 2017

TIME: 12:00 Noon

**124 Winona St., Chatfield, MN Watch for the signs!
COME JOIN THE FUN!**

Refreshments, barbecues, buns, beverages, and tableware will be provided for you. Please bring a dessert, salad, or hot dish to share.

Please fill out your bluebird trail report form and bring it with you, or we can help you fill it out.

Following the lunch, a discussion period will address any questions or comments you may have about bluebirding. Share your story!

There will be **Awards** and **Door Prizes**.

Questions or to RSVP

MARY & BILL BAILEY
9400 150th Ave, SE
Chatfield, MN 55923-2917

OR PHONE: MARY & BILL BAILEY (507) 867-9118

HOPE TO SEE YOU THERE!

BRING ANYONE INTERESTED IN HELPING BLUEBIRDS.

15TH Annual South Central Bluebirders' Picnic

Saturday, September 23th, 2017 at 5:30 PM

Riverbend Nature Center

1000 Rustad RD, Faribault, MN 55021

WATCH FOR BLUEBIRD SIGNS

Join us for a Potluck Picnic with refreshments, hot sandwiches, buns, tableware being provided.

Please bring a dessert, salad, or hot dish to share.

There will be awards and door prizes.

You may bring your filled out report form or we can help you fill one out at that time.

A discussion period will follow the meal to address questions or any comments relating to bluebirding you may have.

.....
15TH ANNUAL SOUTH CENTRAL MN BLUEBIRDERS' POTLUCK PICNIC AT 5:30 PM
SATURDAY, SEPTEMBER 23rd, 2017

_____ I am (we are) coming.

Print name tags as follows _____

SEND RSVP BY SEPTEMBER 14th

TO : Loren & Ardy Murphy

14 So Mitchell Dr, Faribault, MN 55021 or Phone 507-334-7958

If we are not available, please leave a message with your information needed if you are (or not) attending.

**Bluebird Recovery Program
Audubon Chapter of Minneapolis**



**P.O. Box 984
Faribault, MN 55021**

"Raising our Standards for Future Generations!"

Volume 27 Issue 3 Summer 2017

Non Profit Org.
U.S. Postage Paid
Permit No. 93
Faribault, MN

RETURN SERVICE REQUESTED

Bluebird News is published quarterly by the Bluebird Recovery Program, a committee of:
Audubon Chapter of Minneapolis,
P.O. Box 984
Faribault, MN 55021

Membership qualifies as a tax-deductible donation.

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edbbnews@outlook.com

Photo by Doris Glander

**THE NEXT BLUEBIRD EXPO
WILL BE HELD IN
CANNON FALLS
ON APRIL 14, 2018.**

Upcoming Events

September 9, 2017

BBRP Educational Booth
Taste of the Trail
Peterson MN



September 15, 2017

Trail Reports for the 2017 Nesting Season Due

September 16, 2017 – Saturday - noon

12th Annual Southeastern Minnesota Bluebirders' Picnic

Chatfield United Methodist Church
124 Winona St. SE., Chatfield, MN 55923



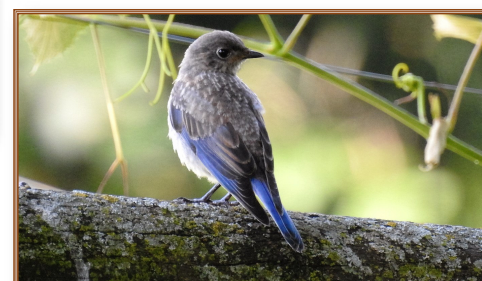
September 17, 2017 - Sunday – 1 - 4 p.m.

BBRP Educational Booth
Valley Grove Fall Festival, 10000 155th St. E, Nerstrand MN

September 23, 2017 - Saturday - 5:30 p.m.

15th Annual South Central Bluebirders' Picnic

Riverbend Nature Center, Faribault, MN 55021



Photos by Doris Glander

Thank you to everyone who wrote articles, provided photographs or helped with the mailing of this publication of the Bluebird News.