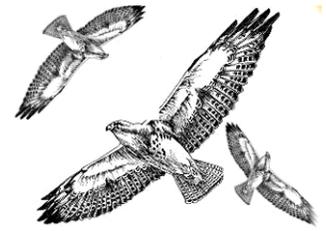


# THE KETTLE



## Straits Area Audubon Society Newsletter - Est. 1983

SAAS meetings are held at **6:00 pm.** on the **2<sup>nd</sup> Wednesday** of each month September through May at the Cheboygan Area Public Library, 100 S. Bailey St. Refreshments will be provided and you may participate in door prize and raffle drawings.

The scheduling of a meeting or program in the library does not in any way constitute an endorsement by the library of the group, its activities, or of the ideas and opinions expressed during the course of meetings or programs.

To reach us by mail - **Straits Area Audubon Society**; c/o Rosanne Rynerson, 10490 E. US 23, Cheboygan, MI 49721

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**Mission Statement** - The mission of the Straits Area Audubon Society is to educate the community, including its children, about conservation and enjoyment of the natural world with emphasis on the local natural communities of wildlife. This will be accomplished through regular seasonal meetings and by sponsoring field trips, classroom studies and field studies.

### Join Straits Area Audubon Society

NAME: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

CITY & STATE: \_\_\_\_\_ NEWS LETTER: [E-Mail] – or – [US-Mail]

Make checks payable to: **Straits Area Audubon Society**  
Single Membership: \$12  
Family Membership: \$15

Please mail checks to:  
Rosanne Rynerson – Treasurer  
10490 E. US 23  
Cheboygan, MI 49721

## March Program

### Owls of the North Woods

Wednesday, March 11 (6:00 pm)

Guest Speaker – **Mary Trout**

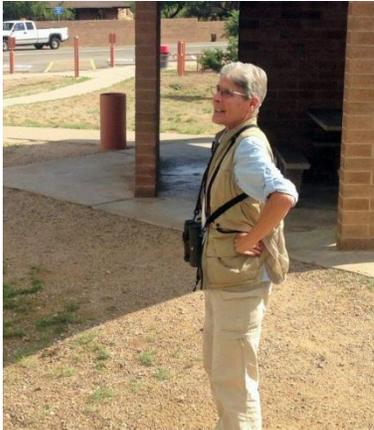


Photo by Bricker's

Owls are uniquely adapted predators, from their ears and eyes to their feathers and talons. Even their digestive system has developed to handle their boney prey. Mary will show us hands-on examples of owl anatomy; describe the species that occur in Michigan and where to look for them. Although people often think of owls as nocturnal year-round residents of our north woods, we will learn about some that are readily visible by day, as well as which species migrate and which stay year-round. Mary's talk will be aided by the Owl Discovery Box maintained by the Little Traverse Conservancy in cooperation with the Cornell Lab of Ornithology. The Little Traverse Conservancy protects the natural character and heritage of northern Michigan, via over 170 nature preserves and other land protection. Mary frequently volunteers with Little Traverse Conservancy in youth outreach and has proven a popular presenter during EarthWeekPlus. After the program and a sharing of nature sightings and upcoming field trips, refreshments will be served. Door and raffle prizes will be available to all attendees.

## Upcoming Programs

April 8 "North Country Trail"  
By Al and Jean Moberly

May 13 "Six-legged Obsession: Why I look down"  
By Mike Grant

## March Field Trips

### Birding the Eastern UP

Friday, March 6 [7:00 a.m.]

Join Steve Baker in an exploration of the Eastern UP for wintering northern birds. This will be a car trip around the eastern U.P. With luck we will see Sharp-tailed Grouse on a lek. Bohemian Waxwings and Snowy Owls are still a possibility. This will be an all day trip and plan on eating lunch out at a restaurant.

Snowy Owl



Photo by Steve Baker

Call to register with Steve Baker at [231-238-8723](tel:231-238-8723).  
Field trip will be canceled if inclement weather.

## Field Trip Reports

### Snowshoe or XC Ski at beautiful Cheboygan State Park

Submitted by Jean & Al Moberly

Sunday February 8 was a cold sunny day in northern Michigan.

Snowshoeing the Park



Photo by Donna Mittlestat

Thirteen Audubon members met at the Poe Reef Cabin at Cheboygan State Park for a ski/snowshoe adventure. We had received several inches of fresh snow the night before making our time in the woods a visual delight! The park was a winter wonderland with the bright sun shining down on the snow-covered trees, casting shadows on the sparkling white landscape. We all packed a lunch to have at the cabin by the warm wood stove, enjoyed with a large pot of delicious homemade soup furnished by the Jim and Kathy Bricker. True to their love of the arctic, the Bricker's spent the frigid night at the cabin, keeping it warm for the arrival of fourth grade students the next day for a Little Traverse Conservancy / Straits Audubon snowshoe outing.

We would like to thank you for making it possible to take two fourth grade classes on a snow shoe adventure February 9th, at Cheboygan State Park. Your generous offer to pay for our bus expense allowed us to enjoy an Animal Tracks Program sponsored by the Little Traverse Conservancy.

This field trip was a great way to get students outdoors searching for tracks. Students learned how different animals move, and it introduced many students to the sport of snowshoeing for the first time.

We would also like to thank the Moberly's for helping make this all possible. Cheboygan is so fortunate to have people and an organization like this that provides opportunities for our children that they normally wouldn't be exposed to in a classroom.

Many thanks, Mrs. Lucius and Mrs. Damm's classes

## Fourth Grade Snowshoe Outing

Submitted by Jean & Al Moberly

The temperature on Monday February 9th was a very chilly 5 degrees, the sun was shining and the woods at Cheboygan State Park were beautiful. The snow was deep and fluffy, perfect for a snowshoe.

Getting ready to start



Photo by Moberly

Good news as this was the day Cheboygan 4th graders arrived ready to experience a fun time and learn how to snowshoe and read the tracks left by fox, squirrels, deer, mice and coyotes. Little traverse conservancy provided two leaders and snowshoes for all. SAAS paid for the transportation. Al and I were relieved to see that all of the students were dressed for the cold day. When the day was over and students back on the bus neither of us had heard a complaint about being too cold. While half the student's snow shooed the others enjoyed the cabin (waiting for their turn in the woods) the cabin was cozy and warm thanks to Jim and Kathy Bricker. Sam King was waiting at the cabin dressed as a woodsman and providing a story and puppet show.

## Thanks from the Fourth Graders

Dear Audubon members,

## Wilderness adventurers speak on Lake Superior Water Trail and Heritage Coast

Submitted by Donna Mittlestat



Gary and Joanie McGuffin presented, Exploring the Lake Superior Water Trail and Heritage Coast to a standing room crowd at NCMC on Feb 10, 2015. The hope is to have a marked Lake Superior Water Trail within a couple of years. After the beautiful slides a hearty 10 souls braved the single digit temperatures to walk the trails at the college. Doug Fuller agreed to lead us and told stories of the area as we walked. Thank you, Doug.

## Field Report

### Snakes Alive!

by Kathy Bricker

'Can we hold it and play with it?' was the first question asked when the black rat snake emerged from the bag at two recent school presentations. For five years, SAAS has brought Jim McGrath of Nature Discovery, Lansing to teach Cheboygan County youth about Michigan's snakes. This

unexpected query shows that older students pass along their positive experience to the younger grades.

Jim with students



Photo by Bricker

McGrath spoke about and shared live animals with five 5<sup>th</sup> grade classes at Cheboygan Middle School as well as the 5<sup>th</sup> grade and kindergarten class at Wolverine. More important than the factual information about snake behavior and biology was the message about the need to conserve Michigan's dwindling number and diversity of native wildlife, including snakes. Even more important was letting youngsters touch and handle the animals. Children hear so much misleading information about snakes that many students have never held a snake before.

We thank SAAS member Nancy Waldron, Citizens National Bank, Awakon Federal Credit Union, and Wolverine School for joining SAAS to enable this nature education.



## 2015 Raptor Watch Plans

by Kathy Bricker

Look to the skies always, especially during the coming raptor migration. In expectation of raising enough funds this month, the Mackinac Straits Raptor Watch has re-hired Kevin Georg from Jonestown, Pennsylvania to count hawks at Mackinaw City. Kevin will be observing hawks from the recreational field from March 8 through May 30, weather permitting. The public is invited to attend any time. Since hawks do not soar in the rain, before you go, watch the weather forecast or check [www.MackinacRaptorWatch.org](http://www.MackinacRaptorWatch.org), then look for the directional hawk watch sign on Central Avenue near the school. We thank Emmet County for donating the McGulpin Point Lighthouse keeper's apartment to defray costs.

Owl research at Cheboygan State Park will also be undertaken by professionals this spring, paid by MSRW. Laura Makielski of Empire, Michigan and Loren Taylor of Lebanon, Kentucky will share duties every night from March 25 to May 15, trained and aided by MSRW committee chair,

Ed Pike. We thank Cheboygan State Park for a partial donation of the Lighthouse Point Cabin. One person will need off-site housing from May 4 to 9. To offer this, to donate or volunteer in another way, please contact me at 231-627-4830.

## SAAS Chapter Notes

### TREASURER'S REPORT

Submitted by **Rose Rynerson - Treasurer**

TREASURER'S REPORT

Please join me in welcoming our new members:

**Bob & Cindy Speeter**

**Sheila Malleis**

**The Downing Family**

It is a pleasure to welcome them, just in time for a busy spring season!

### GENERAL MEETING MINUTES STRAITS AREA AUDUBON SOCIETY

Date: February 11, 2015

Program: Secret Lives of Michigan Salamanders

Speaker: Jim McGrath, Nature Discovery

Time: 6:00 PM

Location: Cheboygan Area Public Library

Attendance: 86 people including 30 members and 56 guests

President, Dale Giddings, welcomed the audience and recognized Jim Bricker who introduced Jim McGrath, returning for the fifth year as a speaker, with a presentation on Michigan salamanders. During the day he had presented to 5 classes of fifth graders in the Cheboygan schools as part of a tour of northern Michigan school systems sponsored by Citizens National Bank, Nancy Waldron, Wolverine Schools and the Awakon Federal Credit Union. Jim talked about some of his past talks about amphibians at the Cheboygan Area Public Library over the years and introduced the audience to the 10 species of salamanders, which includes 5 families, displayed on a MDNR poster. The ubiquitous Mudpuppy was the first species discussed. They are a large variety, up to 18", found in lakes, streams and rivers with rocky bottoms. Unfortunately, Mudpuppies are sensitive to changes in water quality and their populations are declining throughout the state. The Lesser Western Siren was the next species to be highlighted. Only dead specimens have been observed in a southwestern Michigan lake following a MDNR fish kill in order to rid the lake of invasive species. Mole salamanders which

reproduce in wetlands with fish-less vernal ponds were the next category presented. The Tiger salamander found in southern Michigan is the largest, terrestrial salamander growing to 15". They live underground until they travel to vernal ponds to breed. Salamander larvae have no names, like tadpoles for frogs. They are highly predatory and feed voraciously on anything that swims by and can fit in their mouths. The blue spotted salamander is the second most prevalent salamander in the state. They are found in forests, often under logs, close by vernal ponds and wetlands. They breed, at night under water, with the females releasing pheromones that attract males who do water dance before fertilizing the eggs. The Spotted Salamander, patterned with bright yellow dots is about 10" long and particularly intolerant of forest disturbances and human activity. The Marbled Salamander is threatened in Michigan and is found in the southwest corner of the state. Unlike other salamanders, they breed in the fall and the larvae mature over the winter, appearing in the spring. The Small Mouthed salamander is a small creature, 6 – 7" long. This is an endangered species found only in southeast Michigan and threatened by intense urban sprawl which destroys habitat. Newts are a family of salamanders that are found all over the state in shallow, densely vegetated waters on the edges of bodies of water. They are salamanders with lungs so they need to be able to get oxygen at the water's surface. Their young are known as Red efts which are terrestrial and return to the water to reach adulthood before returning to the land. They are highly toxic thus repellent to potential predators. The Red Backed salamanders, which also have a Lead Backed phase, are lung-less and like undisturbed forests with mossy, wet, decaying logs in which to reproduce. They are skinny and worm like in appearance and need moisture on their skin in order to obtain oxygen. The Four Toed salamander lives and reproduces in bogs, laying eggs on the underside of over-hanging moss which allows the gilled larvae to drop into water and develop lungs. They are habitat specific and can be found where the Tamarack and Poison Sumac grow. McGrath mentioned two other species that have been found in Michigan, the Two Line and the Dusky, but in only one protected area in one county in the thumb area. He mentioned the Michigan Herp Atlas which is available online and interactive so that citizen scientists can enter data about the location of salamander species, contributing to identification of population trends. Throughout his talk a variety of live salamander examples representing most of the species discussed were passed around for observation.

Dale Giddings began the meeting by introducing Peter Datema, an Americorps volunteer working in the Pigeon River Country. Peter is looking for citizen scientists to assist with counting some lesser-known bird species in the 166,000 acre area. Last year 54 volunteers from the Petoskey and Straits Area Audubon societies, as well as several other groups, assisted with the localized bird count which will take place from May 15 through June 15, 2015. If you are interested in taking a short training and participating

in this project contact Peter at [datemap@michigan.gov](mailto:datemap@michigan.gov) ASAP. President Giddings announced that the March meeting will have Mary Trout who will bring owl feathers and pellets to enliven her talk about Michigan owls.

Gerry VanderHart announced two door prizes, honey won by Dave Dankert and a puzzle won by Danica Kwiakowski. A bird house door prize, open to only the children in the audience, was awarded to Isabel Williamson. Chris Grant won the raffle.

There was no report on field trips held over the last month. Nature sightings included a blue spotted salamander (not the one passed around the audience but in the wild), 3 pileated woodpeckers, and a bobcat chasing a squirrel, a star-nosed mole, a snowy owl and a mink. President Giddings shared a photo of his resident shrew, Kate. He also announced the publication by the SAAS of an ad for the campaign to reduce the use of plastic grocery bags in Cheboygan County. Refreshments were provided by Kathy and Jim Bricker, Dale Giddings, Chris and Mike Grant, and Rose Rynerson. There was an announcement about the Tawas Bay Birding Festival in May with a tour of Thunder Bay aboard the glass bottomed boat, the Lady Michigan, and June 7 Rockport Recreation Day which includes a bike hike to sinkholes in the area. It was also announced that Jim McGrath brought snakes if anyone wanted to handle them.

The meeting was closed for the refreshment phase.

Submitted Cathy Freebairn, ersatz Secretary for the night

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## Nature Notes

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From wise GEEK

Moose antlers are formed by the fastest-growing cells in nature.

One can find the fastest-growing animal cells in nature in moose antlers—the bone cells that make up the 6 feet (1.8 m) wide on average antlers of male moose allow them to shed and entirely re-grow the large antlers each year. The main purpose of moose antlers is as a weapon for fighting for a mate, a period that generally only lasts from September to October. Therefore, antlers are unneeded after that point. The growth is prompted by the release of hormones that occurs around April or May, and each new set of antlers is generally increasingly larger than the last as a moose reaches its prime at around six years. After that, the cells in the antlers decrease in growth speed until the antlers eventually recede.

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## Duncan / Grass Bays Watershed Plan

**From:** Grenetta Thomassey  
[mailto:grenetta@watershedcouncil.org]  
**Sent:** Tuesday, February 03, 2015 12:48 PM  
**To:** Grenetta Thomassey

**Subject:** invitation to learn about Duncan-Grass Bays Watershed Plan

Hello from Tip of the Mitt Watershed Council! We are writing to extend an invitation. We hope that you will participate in a newly-forming Advisory Committee for a brand new Watershed Management Plan being written for Duncan and Grass Bays. What is a Watershed Management Plan, you ask? Please see the attached flyer for more details! We have worked in the field for the past two years to prepare for writing the plan, and we are anxious to share this information with you. A series of Focus Groups were also conducted in the area, so that we could better understand key concerns in the region. The goal is to incorporate all of this information into a well-written and easy to use plan that will keep the Bays healthy and attract investment into the area.

Our first meeting will be in March, and we expect to convene an Advisory Committee a total of 3 times each year, in spring, summer, and fall. Before we settle on a venue for the March meeting, we wanted to see how many folks are interested in coming.

**If you want to be included, please simply reply to this email and let me know the following:**

1. Will you come to a March meeting and if so, are there any days or time of day we should avoid, when choosing a date?
2. Do you have the name/email of someone else we should invite? Feel free to share this invitation with anyone else in your organization or group, if you are not the best contact or just want to include others.

Thanks for your time and consideration! I hope to hear from you soon! Sincerely, Grenetta

Grenetta Thomassey, PhD  
Program Director  
Tip of the Mitt Watershed Council  
231.347.1181 ext. 118  
231.838.5193 cell

## For Your Information

Names & Numbers

### Straits Area Audubon Society 2014 - 2015 Officers

President: Dale Giddings - 231-525-8874  
[No email]  
Vice President: Connie Rieger - 231-818-9065  
conniereger@yahoo.com  
Treasurer: Rosanne Rynerson - 231-597-9788

fiddleheadfilly4@gmail.com  
Secretary: Diane Morand - 231-627-4282  
mdlmorand@aol.com  
Past President: Roger Benter - 231-627-3992  
rogerbenter@gmail.com  
Exe.Com. At-Large: Chris Grant - 231-238-8216  
chrisgrant723@yahoo.com  
MAS Representative: Donna Mittlestat - 906-201-0285  
ddmstat@hotmail.com

## Nature Links

Michigan Audubon Society  
[www.michiganaudubon.org](http://www.michiganaudubon.org)  
MNA [Michigan Nature Association]  
[www.michigannature.org](http://www.michigannature.org)  
The Nature Conservancy  
<http://nature.org/greatlakes>  
Little Traverse Conservancy  
[www.landtrust.org](http://www.landtrust.org)  
Whitefish Point Bird Observatory  
[www.wpbo.org](http://www.wpbo.org)  
HMANA Mackinaw Straits Raptor Watch  
[http://hawkcount.org/month\\_summary.php?rsite=613](http://hawkcount.org/month_summary.php?rsite=613)  
Mackinaw Straits Raptor Watch  
[www.MackinacRaptorWatch.org](http://www.MackinacRaptorWatch.org)

**Note from the Editor:** All articles and photos for *THE KETTLE* should be submitted to the editor's e-mail box one week BEFORE the end of a publication month. This will allow the e-mail edition to be sent out by the first of the month and the printed edition to be mailed by the 4<sup>th</sup> day of the month.

Thank you. Jack Kirby [saaskettle2011@gmail.com]

SAAS thanks Williams Office Equipment for donating printing costs for **The Kettle**. Please consider them for all your Computer, Copier, Printer and Fax needs.

312 West Elm Street, Cheboygan, MI 49721  
Phone: 231-627-7020 -- Fax: 231-627-7477

**Happy 50<sup>th</sup> Wedding Anniversary**  
**Roy and Alice MacFarland**  
**February 20<sup>th</sup> 2015**

**Happy St Patrick's Day**  
**From your Kettle Crew**

## Your SAAS members are involved and sponsor many Cheboygan area community projects

### Plastic Bag Campaign

## BRING IT CHEBOYGAN!

By Karen Martin --- 231-627-6758, [peacemam@att.net](mailto:peacemam@att.net)

**BRING IT CHEBOYGAN!**  
Remember to bring re-usable bags when you shop

Both the County and City of Cheboygan recently passed resolutions that urge citizens to switch from single-use plastic grocery bags to re-usable bags. Benefits of re-usable bags include:

- ✓ Improved human health from cleaner water without plastic bag toxins
- ✓ More attractive roadways and beaches without plastic bag litter
- ✓ Savings of energy use and natural resources with less plastic bag production
- ✓ Safer environment for animals that can die from eating plastic bag particles
- ✓ Pride shared with your family and friends as Cheboygan County becomes first in Michigan to reduce plastic bag use

Thanks to the thousands of people around Cheboygan who support reduced use of plastic bags and especially the following elected officials for their positive votes: Cheboygan County Commissioners Bruce Gauthier (made motion), Cal Goulin, Pete Redmond, Linda Sorcha (Chair) and John Wallace; Cheboygan Council members Mark Bromson (Mayor), Nick Cantore, Nate King (made motion), Jon Lovander, Wilfred Middle, and Vaughn Tompkins.

**YOU can:**  
Buy and remember to bring re-usable bags.  
Thank other shoppers with re-usable bags.

Thank these businesses which actively promote re-usable bags:

Bark Bath and Beyond	Quick Check Grocery
Family Fare	Brick Oven Bakery
Strait's Area Chipmunk	Beer City Exchange
Wilder's Women's Fashion	

Ad sponsored by Straits Area Audubon Society, [www.straitsareaaudubon.org](http://www.straitsareaaudubon.org), bringing nature experiences and education to the Straits region. To learn more about re-usable bags, visit Facebook page CHEBOYGAN FIRST IN REDUCING PLASTIC SHOPPING BAGS!

I want to explain more about the **BRING IT CHEBOYGAN!** Campaign that Michiganders Against Plastic has launched. We were inspired by [www.bringitaustin.com](http://www.bringitaustin.com). Austin Texas passed a ban on plastic bags, but they still wanted to make it fun and help citizens remember to bring reusable bags. Our approach combined the above Austin efforts, and the voluntary plastic bag efforts in St. Augustine Florida. In October 2014 the County Board of Commissioners passed a resolution encouraging citizens and businesses to reduce use of plastic bags and use reusable bags. In December the Cheboygan City Council passed a similar resolution.

Those working to implement an actual reduction in bag use turned our attention to the local businesses generating the most plastic shopping bags. In January 2015 four of us met with management at our local Family Fare store. They were so willing to help. Per a list of suggestions by us, the corporate headquarters offered this: putting signs on cart corrals and in the store reminding customers to bring their reusable bags. In addition they offered 7,200 Spartan reusable bags, to hand out at the EarthWeekPlus Expo on April 18, and in front of Family Fare near Earth Day, April 22.

We believe the energy and ongoing efforts by MAP will resonate to other Michigan communities. What has been accomplished is truly remarkable. We are the first community in Michigan to address the blight and ecological issues of plastic shopping bags. We are second in the nation (after St. Augustine) to do this via "voluntary" efforts.

We appreciate the support of SAAS in enabling this ad. The ad was printed in the Cheboygan Daily Tribune, thanks to donations from Patti and Don Barrette, Kathy and Jim Bricker, Bobie and Lanny Congreyer, Joanne and Mike Cromley, Anabel and David Dwyer, Dale Giddings, Alice and Roy MacFarland, David Martin, Karen and Denny Martin, and Jeanne and Bob Pritchard.

**BRING IT CHEBOYGAN!** Don't forget to bring your reusable bags! For more information, contact me or David Martin, 231-268-9935, or visit Facebook **BRING IT CHEBOYGAN!**

## WINTER BIRD FEEDING: GOOD OR BAD FOR BIRDS?

FROM NATURE CONSERVANCY By Joe Smith, ornithologist and restoration ecologist

Winter bird feeding is one of the most popular ways for people to interact with nature, and most do it to help birds get through these tough months. **But what does this really mean for conservation? Does feeding help or hurt birds?** More than 40 percent of U.S. households feed their backyard birds, and in the United Kingdom, the rate is as high as 75 percent.

Despite the widespread popularity of bird feeding, scientists are still building a basic understanding of its impacts. As we might guess, a number of studies show **generally positive impacts of bird feeding**. For example, the overwinter survival of birds is enhanced by bird feeding.

This is especially true during the coldest times, when some hungry birds might otherwise lose the battle with the elements<sup>1</sup>.

A study conducted during winter in Wisconsin showed that black-capped chickadees with access to bird seed had a much higher overwinter survival rate (69 percent) as compared to those without access to human-provided seed (37 percent survival).

Furthermore, some studies have shown that birds making it through the winter in **better physical condition** see those benefits carry over into the nesting season.

Bird feeding produces significantly earlier egg laying dates, larger clutches of eggs, higher chick weights and higher overall breeding success across a wide range of bird species<sup>2,6</sup>.

The **greatest impact of feeding is seen when birds are most challenged**, such as after particularly harsh winters or when birds are young and inexperienced, or when they are living in low-quality habitats<sup>2</sup>. Feeding can promote the survival and reproduction of the not-quite-fittest.

But in contrast to these straightforward results – showing that bird feeding makes for better-off birds – a few studies indicate that, at least in some situations, there may be unintended consequences of bird feeding.

A European relative of the black-capped chickadee, the blue tit, was studied in the United Kingdom to examine the impact of bird feeding on nesting success.

One research group<sup>3,4</sup> found that **birds fed during winter subsequently laid a smaller number of eggs** that had lower hatching success and ultimately fledged fewer young than birds that weren't fed at all. The offspring that did fledge weighed less and had a lower survival rate than the young of unfed birds.

An additional U.K. study of the blue tit and another chickadee-like species, the great tit, had similar findings. Both species, when they had access to bird food, **laid fewer eggs, had lower hatching success, and ultimately had fewer chicks fledged**.

Note, however, that these are **just two studies demonstrating a negative effect of bird feeding** – among a majority that show positive effects.

Nonetheless, the striking findings of lower reproductive success in supplemental fed birds need some explanation.

Unfortunately, it was beyond the scope of these U.K. studies to definitively explain how bird feeding resulted in lower reproductive success, but the authors offer several possible hypotheses.

One possibility the authors suggest is that the bird feeding provided an irresistible diet that was unbalanced – **too high in fat to produce high-quality eggs**. More protein, micronutrients, and antioxidants than are provided by bird seed may be needed to produce high-quality eggs.

Another possibility is that bird feeding allowed individuals with a lower reproductive capacity which ordinarily would not survive the winter the chance to nest.

A final possibility is that the feeders were placed in poor quality nesting habitat – leading the birds to choose these suboptimal sites as nesting areas in the spring.

**More research needs to be done across a wider geographic area** and on more species to understand not only the impacts of bird feeding on reproductive success, but also on other factors such as disease transmission, species range expansion, and population trajectories.

Citizen scientists can help by participating in initiatives like [Project FeederWatch](#) that ask people with bird feeders to share their observations. What you [see in your own backyard](#) can contribute to the efforts to answer these questions.

#### References

1. Brittingham, M. C. & Temple, S. A. 1988 Impacts of Supplemental Feeding on Survival Rates of Black-Capped Chickadees. *Ecology* 69, 581.
2. Robb, G. N., McDonald, R. A., Chamberlain, D. E. & Bearhop, S. 2008 Food for thought: supplementary feeding as a driver of ecological change in avian populations. *Front. Ecol. Environ.* 6, 476–484.
3. Plummer, K. E., Bearhop, S., Leech, D. I., Chamberlain, D. E. & Blount, J. D. 2013 Winter food provisioning reduces future breeding performance in a wild bird. *Sci. Rep.* 3.
4. Plummer, K. E., Bearhop, S., Leech, D. I., Chamberlain, D. E. & Blount, J. D. 2013 Fat provisioning in winter impairs egg production during the following spring: a landscape-scale study of blue tits. *J. Anim. Ecol.*
5. Robb, G. N., McDonald, R. A., Chamberlain, D. E., Reynolds, S. J., Harrison, T. J. E. & Bearhop, S. 2008 Winter feeding of birds increases productivity in the subsequent breeding season. *Biol. Lett.* 4, 220–223.
6. Ruffino, L., Salo, P., Koivisto, E., Banks, P. B. & Korpimäki, E. 2014 Reproductive responses of birds to experimental food supplementation: a meta-analysis. *Front. Zool.* 11, 80. *Opinions expressed on Cool Green Science and in any corresponding comments are the personal opinions of the original authors and do not necessarily reflect the views of the Nature Conservancy.*

**Joe Smith** is an ornithologist and restoration ecologist based in Cape May, NJ. His current work focuses on beach restoration to ameliorate the impacts of Hurricane Sandy on horseshoe crab spawning habitat along the Delaware Bay, and migratory bird research in New Jersey, Massachusetts, and Ecuador. Joe has previously worked for The Nature Conservancy as a conservation ecologist and has done field research throughout the United States and Latin America. His Ph.D. research investigated the wintering biology of migratory songbirds in mangrove forests of Puerto Rico. Joe blogs elsewhere at [www.smithjam.com](http://www.smithjam.com).