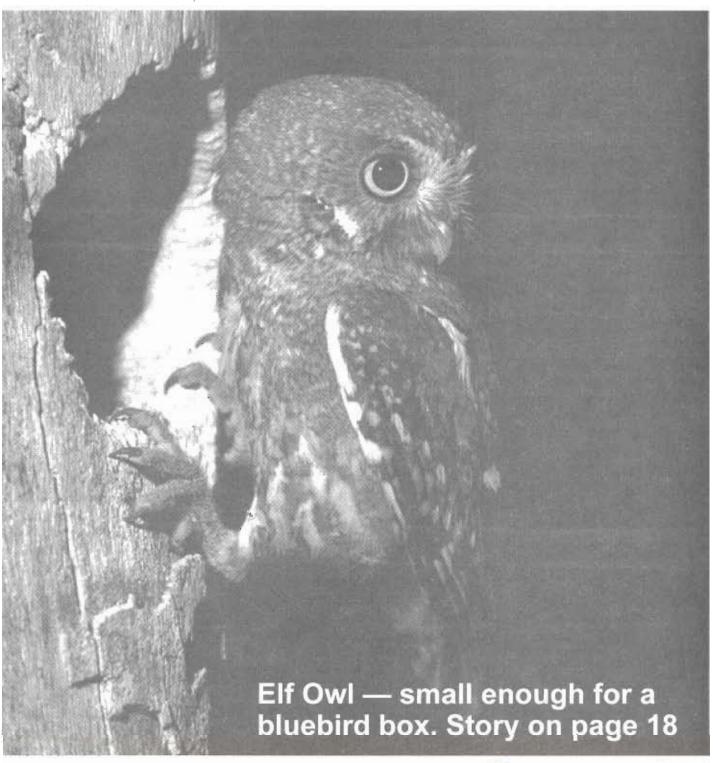


Bluebird Winter 2006 Vol. 28, No. 1



aws in the U.S. and Canada governing the work you do with birds and nest boxes are reviewed in an important article by Myrna Pearman. See page 5.

//hat do bluebirds eat in the winter? Kevin Berner dug seeds from droppings and grew plants to find out. Story and photos on page 9.

lus, 11 ways to raise more bluebirds next spring, on page 13, and a study of dispersal of Tree Swallows — where do they go to nest for the first time? See page 14.



North American Bluebird Society

The North American Bluebird Society is a non-profit conservation, education, and research organization that promotes the recovery of bluebirds and other native cavity-nesting bird species.

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From the President

By Steve Garr

On Nov. 5, the NABS board of directors met at our new headquarters in Georgia for training and end-of-fiscal-year reports. This was the first time the NABS board had a chance to see the new headquarters. It took only minutes at the new site (with its country setting, large four-room, one-story farm house with hardwood floors and a hilltop view of valley behind the center) before board members started talking about the enormous possibilities that lay before NABS because of the new headquarters and the enthusiasm of our new executive director, Gary Springer.

The board is now talking about planning for the future, not just tomorrow or next year, but looking ahead and putting plans and dreams in process for years to come. One board member even mentioned, "NABS needs to start preparing now for the next 20 years because NABS now has a home." A very appropriate and easy to remember name, "The Bluebird Center," was chosen for the new headquarters.

Those who serve on the board are looking to expand the knowledge and experience of the board members. Besides meeting twice a year for board meetings, many of the board members chair or serve on committees. With the new location, there are also important positions to fill on the board that we feel could benefit NABS.

While we do have educators, researchers, authors, promoters, and businesses professionals with conservation concerns and passion for the protection of bluebirds on the board, there is not a financial adviser or accountant nor an attorney (although NABS has legal counsel). Filling these positions with qualified volunteers can help the board be more productive at each meeting.

I know that being on the board is meeting

more than just two times per year. There is some financial cost and donation of time by board members. But, when you talk and listen to a person who has just seen and experienced their first bluebird or you see bluebirds in an area of the country that may not have had bluebirds for years or decades, you know the work you will be doing and the work done by past board members and bluebird conservationist like Lawrence Zeleny, Ray Harris, Steve Eno, Charlotte Jernigan, and many, many others, is worthwhile.

As a businessman and conservationist I strive ro protect the environment at my business, but often do not get to see the results. What NABS has achieved over the years is remarkable. In fact, NABS has done such a great job of bringing back our three bluebird species that some people wonder if the mission is finished.

Our mission is far from finished.

It is time now fot us ro rejuvenate the passion for bluebirds.

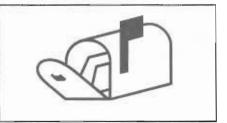
Their non-native enemies, the House Sparrows and European Srarling, continue to increase in population and expand their territories. It was and still is the hard work of dedicated bluebirders (many of them NABS or affiliate members) with trails who have led the comeback of the bluebirds. But, we must not forget the backyard monitor who has shared their passion for bluebirds with their neighborhood, expanding the territory of the bluebird.

New bluebirders may not remember when bluebirds were not in their favorite park or just down the street. They may not understand the years of hard work it took by dedicated bluebirders to bring them to different areas of the country. Most people who know me know that much of my petsonal teseatch has been to change the thinking on bluebitd habitat. Some of the best habitat is in yout own backyard, especially if you live in a subdivision or at the edge of a town or city.

When someone asks me if they can get bluebitds whete they live, my notmal tesponse to them is "if you have enough lawn that yon have to cut the gtass, you have enough area to attract bluebirds!" This may be stretching it in some areas but bluebirds are not just for the country. Putting up and maintaining nest boxes close to city parks that have bluebird trails can expand their habitat. Plus, if you control the House Sparrows in the habitat around the bluebird trail it should help keep House Sparrows away from the trail, and this can act as an extra buffer zone of protection for the trail.

The North American Bluebird Society has a new bluebird center that reflects what we are about, and is dedicated just to NABS (we are not just renting an office in a building — we have a "center" to build as we see fit). We have a new executive director who is sincerely dedicated to NABS, and who has made many personal sacrifices and generous donations to the betterment of NABS. We have many dedicated and enthusiastic board members and officers, but we are in need of more.

There has never been a better time to be a part of this wonderful organization! Please consider becoming a part of the "Legacy of NABS" by contacting us at The Bluebitd Center and letting us know of your desire to be on the boatd of directots. You can reach us at P.O. Box 551, Carnesville, GA 30521, telephone 706/246-9670.



Wind helps nesters

To the editor,

Regarding heat and nest-boxes (Bluebird Vol. 27, No. 4, Fall 2005), my 100-box trail has been in place for nearly 10 years, and here in northeast Oklahoma we have quite a few summer days where temperatures exceed 100 degrees Farenheit.

My Eastern Bluebirds often nest into early August if they have a third family or a second family if they get a late start for some reason. I have never taken any action to cool or shade boxes, and have not lost birds due to high temperatures.

The difference here may be that we almost always have some wind or at least a stiff breeze. Hopefully this will add some information to the nest-box temperature srudies that are being done.

- Bob Walshaw, Coweta, Oklahoma

Nest-box locations

To the editor.

I do a lot of environmental writing along the seacoast of New Hampshire. My work began in 1995 as a New Hampshire Audubon bird tecords reporter. Now I work on my own as a campaigner for conservation here.

I would love to see blnebirds return to the seacoast in greater numbers. I've never seen one here. I thought perhaps the grounds of public historic homes and gardens might make suitable bluebird habitat in some cases. Please check wirh your local historical society (to see if this would work for you).

— Gayle Sweeney, Hampton, New Hampshire

Bluebird

Published by The North American Bluebird Society

P.O. Box 551 Carnesville, GA 30521 706/246-9670 Gary Springer

Executive Director

Questions should be directed to the NABS headquarters address/telephone number shown above. The NABS web site offers answers to many questions. Go to www.nabluebirdsociety.org

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Communication for future issues
of this magazine should be directed
to Karen Martin, PO Box 116,
Griggsville IL 62340-0116

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For advertising information, contact the executive director of the society.

NABS 2006, San Antonio, April 26-30

The Texas Bluebird Society will host the North American Bluebird Society's 29th Annual Convention in San Antonio, Texas, April 26-30, 2006. Headquatters hotel is the Airport Hilton, which offers complimentary transportation to and from San Antonio International Airport.

Continental Airlines and the Airport Hilton are offering group rates for attendees. NABS 2006 will be hosted during the city's hugely popular Fiesta; our hotel registrations in November already exceeded the total number of hotel rooms booked for NABS 2005. So, attendees are urged to book with the Hilton as soon as possible. Rooms are available at a discount until March 26.

The base registration cost of only \$37 (\$45 for non-members) includes two to five days of activities (general sessions, break-out sessions, a book signing, and a breakfast and a lunch.) The one-day tate is \$25.

Space is limited. As some field trips were full in November 2005, attendees are urged to register for the convention without delay.

A convention brochure insert was included in the Fall 2005 issue of *Bluebird*. It outlines registration details, describes each day's agenda, and provides a mail-in registration form. NABS 2006 Convention offers on-line registration at www. NABS 2006.com.

"Red, White & Bluebirds", the convention theme, hints at the Texas-style welcome awaiting all for fun, training, education and sharing. April is the best birdwatching period in Texas.

Optional add-ons during registration include birding field trips, city touts, "build-your-own nestbox cam", and a barbeque, plus "Bluebilacion", the NABS dinner and awards Saturday night. Speaker at that event will be bat expert Dr. Gary McCracken. An auction of art, wines, a complete set of "Sialia Bluebird", airline tickets, and other items will benefit bluebird conservation.

Thank you, and goodbye

This is my final issue as editor of Bluebird.

I want to thank you for being readers and, in many cases, contributors to the magazine. I want to thank NABS board members and officers past and present for their assistance and support. Thanks in particular to Kevin Berner, former board member and research committee chair who gave me many fine articles with which to work.

Most of all, I thank fellow Minnesotan Dorene Scriven for answering my many questions, for sharing her extensive knowledge of bluebirds. She corrected my errors, and kept this magazine moving in the right direction. I could not have edited *Bluebird* for the past seven years without her help, support, and friendship. (And, she motivated me to create my own bluebird trail.)

Thanks also to Cheryl Eno, who for the past several issues has generously provided excellent proofreading skills.

The North American Bluebird Society makes a valuable contribution to bird conservation in North America. It keeps its feet on the ground and quietly does work that each year produces more and more flashes of blue. It is an important organization of which you should be proud, and which deserves your continued support.

This has been great fun for me. I leave with a smile on my face — and 30 nest boxes to help keep ir there.

- Jim Williams

New editor is named

Karen Martin, a natural history writer and editor for 16 years, has been named editor of *Bluebird*, the magazine published for members of the North American Bluebird Society. She replaces Jim Williams, editor since 1999.

Ms. Martin and her husband live in Griggsville, Illinois. She has worked for Nature House in Griggsville for the past 16 years, serving as editor of the *Nature Society News* since 1997.

"Growing up on a farm in the midwest, conservation and preservation of wildlife was instilled in me at a young age," she said in a recent visit. "Working with Nature House, I've learned first hand the importance of hosting cavity nesting songbirds in a safe, healthy environment."

You can contact Ms. Martin by email at bluebird-editor@excite.com. Her mailing address is PO Box 116, Griggsville IL 62340-0116.

It's the law

U.S. and Canadian laws regulate what you can and can't do when tending your nest boxes

By Myrna Pearman

uthorities in both Canada and the United States have been contacted for clarification on the laws and tegulations regarding activities related to maintaining a bluebird trail. The following summary has been reviewed and approved by the Wildlife Enforcement Division, Enforcement Branch of Environment Canada and the Division of Migratory Bird Management, U.S. Fish and Wildlife Service.

However, nothing contained herein is intended to provide legal advice. It is the tesponsibility of each bluebird trail operator to become familiar with, and abide by, all relevant laws and tegulations.

With the exception of bitd banding, which is jointly administered by the United States Department of the Interior and the Canadian Wildlife Service, each country has its own federal laws and permit requirements. Furthermore, each province and state may also have its own set of regulations and permits that must accompany federal permits.

It is important to remember that bluebirds, swallows, and other native birds that use nest boxes are wild birds, subject to natural processes. Just because they use nest boxes does not mean that they can, or should, be treated like cage birds or pets. Furthermore, their use of nest boxes does not entitle the nest box owner to intentionally disturb the adult birds or to interfere in any way with nesting activities. All native birds

that use nest boxes are protected in Canada under the Migratory Birds Convention Act (MBCA) and in the United States under the Migratory Bird Tteaty Act (MBTA).

In Canada, the MBCA states that it is illegal to disturb, destroy, or take a nest, egg, or nest shelter of a migratory bird, or to have in one's possession a live migratory bird or a carcass, skin, nest, or egg of a migratory bird except under authority of a permit.

In the United States, the MBTA provides that it is unlawful — unless permitted undet or authorized by regulations — to pursue, hunt, take, capture, or kill; attempt to take, captute or kill; possess, sell, barter, purchase, import, export, or transport any native migratory bird, or any part, nest, or egg of any such bitd. Take is defined



in tegulations as: "pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect."

Permits are not required to open a nest box for the purpose of observing nesting progress (counting eggs, nestlings, etc.) or to clean it once the young have fledged (or if the nest failed because the eggs did not hatch, all the young died, etc.).

However, bluebirders are sometimes confronted with situations where — although intervention is deemed necessary for nestling survival — permits may first be required. Situations that may require a permit (depending on the specific circumstances) include: temoving wet nesting material from an occupied nest and replacing it with dry material; treating or replacing an occupied nest that is infested with nest parasites; removing nesting material to lower it so the occupants are farther away from a predator's reach; and removing dead nestlings or unhatched eggs from a nest containing live young.

In Canada, none of the above-listed activities may be legally undertaken without a petmit. In the United States, permits are also requited for these activities, except that nest material can be manipulated (e.g., to lower the nest from the reach of predators) without a petmit so long as the integrity of the nest is not compromised and no birds are handled in the process.

Continued on page 7



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"Feeding live insects to the wild birds in my yard has helped me build a special bond with individual birds."

-Julie Zickefoose

Handling a live nestling for any reason (e.g., to temove blowflies, to remove orphaned nestlings to foster them out, to administer warmth ot fluids) always requires a permit in both countries.

In Canada, federal permits are issued by the Canadian Wildlife Service (CWS) and provincial permits are handled by provincial Fish and Wildlife (or equivalent) departments. To obtain the necessary permits, a bluebird trail operator must first apply to the CWS for a Federal Scientific Permit. If granted, this permit will outline all the relevant conditions and restrictions that apply to trail monitoting aetivities.

Contact your tegional CWS office to obtain the necessary application form, and ask to speak to a staff member who can help guide you through the process. CWS contact information is included below. Once you have been issued the federal permit, you then need to contact your nearest fish and wildlife (or equivalent) office and apply for the relevant provincial permit(s). Keep a copy of all permits with you while out on the trail, and be sure to submit the necessary reports at the end of the season.

In the United States, permits are issued by the U.S. Fish and Wildlife Service. A state permit may also be needed from the state's wildlife conservation (or equivalent) department. The first step towards obtaining the necessary permits is to contact yout nearest U.S. Fish and Wildlife Service's Migratory Bird Permit Office and inquire about obtaining a Migratory Bird Permit. Some states require that this federal permit be obtained before they will issue the appropriate state permit; other states require that a state permit be issued first.

Permit staff will guide you through the process and will provide you with information about your state's regulations. Migratory Bird Permit Office contact information is listed below. Again, keep a copy of all permits with you while out on the trail, and be sure to submit the necessary reports at the 'end of the season.

Once you have your permits in place, it is

a good idea to pay a visit to yout closest provincial/state fish and wildlife department (or equivalent) office and get to know your local fish and wildlife officers and biologists. Tell them where your bluebird trail is located, show them your permits, and ask if you might consult with them should a crisis or problem arise on your trail. These individuals are usually very supportive of bluebird conservation efforts, and can be useful sources of information and advice.

Another recommendation is to visit your nearest wildlife rehabilitation centre (rehab

centre) and get to know the folks who operate the facility. While most bluebird trails are too distantly located for these centres to be of much practical assistance, a rehab centre can be called for advice should a crisis arise. If it is feasible, rehab staff or volunteers will either come out and pick up orphaned or injured bird(s) or make arrangements for you to delivet it. Rehab centre contact information is listed below.

Last, but cettainly not least, get to know the other bluebirders in yout area. Not Continued on the next page



What you can and cannot do with your nest boxes is governed by federal laws.

only will they have lots of information and experiences to share, but they can also offer advice and provide support should you require assistance. If you would like to have the birds that nest in your boxes banded, contact your local master permit holder to see if there might be a bander in the area who would be willing to band them.

It is illegal in both countries to collect eggs or nests without permits. Although nests containing intact abandoned eggs make excellent educational tools, such collections may be allowed, but only under special federal and provincial/state permits. In some cases, educational institutions (including nature centres) can obtain these permits, then 'loan' the collection to a trail operator for the sole purpose of education. There will be special conditions attached, depending on the individual circumstance. Check with your federal and provincial/state wildlife authority for information.

If you do obtain a permit, keep the original in a safe place and attach a copy to the display case so that it is readily available should you be questioned by the authorities.

It is not legal to hand-taise a bluebird or any other wild bird protected under the Migratory Birds Convention Act or Migratory Bird Treaty Act. Check the Canadian Wildlife Service at www.cws-scf.ec.ge.ca or the U.S. Fish and Wildlife Service at www.fws.gov for a list of bird species that are protected in each country and for copies of relevant legislation.

Canada Canadian Wildlife Service

Alberta

Room 2000, 2nd Floor 4999-98 Ave,

Edmonton, AB T6B 2X3

Phone: 780/951-8700 British Columbia

5421 Robettson Road RR1

Delta, BC V4K 3N2 Phone: 604/940-4700

Manitoba

Suite 150,123 Main St.

Winnipeg, MB R3C 4W2 Phone: 204/983-5259

Saskatchewan

115 Perimeter Road Saskatoon, SK S7N 0X4

Phone: 306/975-4087

United States

U.S Fish and Wildlife Service, Migratory Bird Permit Office

Region I (California, Idaho, Nevada, Oregon, Washington)

911 NE 11th Ave.

Portland, OR 97232-4181

Phone: 503/872-2715

Region 2 (Arizona, New Mexico, Okla-

homa, Texas) P.O. Box 709

Albuquetque, NM 87103-0709

Phone: 505/248-7882

Region 3 (Illinois, Indiana, Iowa, Michigan, Missouri, Minnesota, Ohio and

Wisconsin)

U.S. Fish and Wildlife Service, MBSP

1 Federal Drive

Fort Snelling, MN 55111

Phone: 612/713-5458

Region 4 (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico/Virgin Islands, South Carolina and Tennessee) 1875 Century Blvd., Suite 400

Atlanta, GA 30345 Phone: 404/679-4000

Region 5 (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia and West

Virginia) U.S. Fish and Wildlife Service 300 Westgate Center Drive Hadley, MA 01035-9589

Region 6 (Colorado, Montana, Nebraska, North Dakota, South Dakota, Utah,

Wyoming)

P.O. Box 25486 DFC (60154) Denver, CO 80225-0486

Phone: 303/236-8171

Region 7 (Alaska) 1011 E. Tudor Road Anchorage, AK 99503 Phone: 907/786-3693

International Wildlife Rehabilitation Council

PO Box 8187 San Jose, CA 95155 Phone: 408/271-2685 http://www.iwrc-online.org/

This article comes from a revised edition of the 'Mountain Bluebird Trail Monitoring Guide'. Here's how to get a copy.

This article on the law as it pertains to the activities of bluebird monitors is taken from the soon-to-be-released second edition of the book "Mountain Bluebird Trail Monitoring Guide" by NABS member Myrna Pearman. Copies are available now.

In Canada, the book ptice is \$6.95. It can be ordered by telephone from the publisher, FAN, at 780/427-8124, fax by fax 780/422-2663 c/o FAN.

In the U.S., the book is distributed by the Mountain Bluebitd Trails group in Montana. Write to Rod Spencer, 369 Beth Drive, Great Falls, MT 59405. Cost is \$3 per book plus postage of \$1.50 for one to three copies, \$2 postage for four to seven copies, \$2.50 for eight to 11 copies, and \$3.50 for 12 to 20 copies.

For quantities of 50 or more, the price is \$2.50 per book plus \$7 for shipping and handling.

All proceeds from the sale of the book will be used by the Red Deer River Naturalists to underwrite the cost of production.

Getting to the bottom of winter bluebird diets

Nest-box droppings tell the story

osr bluebird enthusiasts concentrate their efforts towards providing and monitoring nest boxes during the spring and summer each year. These efforts have helped to reverse the long-term bluebird declines throughout much of the U.S. and Canada. Much less attention has been paid to bluebirds outside of the nesring season.

Winter foods are very important for bluebirds if they are to go into the nesting season at optimum levels of health. I have attempted to identify key winter foods used by bluebirds in upstate New York.

While there are published plans for bluebird roosting boxes, I have not been able to find evidence that these large boxes with internal perches are readily used by bluebirds. Discussions with many individuals at NABS and state bluebird conferences have lead me to believe that roosting boxes as described in bluebird books are rarely used.

However, bluebirds frequently do roost in nest boxes in the winter. It is well documented that individuals or groups of bluebirds will crowd into nest boxes on winter nights. Nest boxes are far smaller than roosting boxes, so the body heat of the birds would be able to keep the area warmer than in a larger box. In addition, many bluebirders plug all ventilation holes in their nest boxes during the winter to minimize heat loss of birds using the boxes.

At the end of the winter, if bluebirds did use a nest box for roosting there is usually a large accumulation of droppings on the floor. For the last several years, I have collected these droppings on my first spring visit to boxes to clean them out for the nesting season. I have taken these droppings and planted them in small trays that are commonly used for rearing garden plants from seeds fot transplanting.

The plants that germinate are plants that the bluebirds had chosen for winter foods. I have wanted to identify these winter foods so that I could plant or encourage those same plants on my own property to

support over-wintering bluebirds.

What I have found is that the vast majority (probably 95 percent) of the germinating plants from the bluebird droppings are staghorn sumac (Rhus *typhina*). These seeds can often be identified by the remaining red fuzzy material on them from the sumac seed heads.

A second plant that has germinated in much smaller quantity has been poison ivy (Rhus *radicans*). I have not identified any other germinating plant but often have noted among the droppings the seeds of



nannyberry (Viburnum *lentago*). These seeds are easy to identify due to their large size and distinctive round and flat shape.

(Having eaten many nannyberries in the field, I am familiar with these seeds, similar to watermelon seeds but round. During my attempts to germinate seeds from bluebird droppings, I never observed any nannyberry seeds germinating in my seed pots. I have since learned that nannyberries need a period of cold (which they get in the nest box), then a period when some roots start to develop, followed by another cold period before they start above-ground growth. Some other seed types may undergo a similar process and thus would not have germinated in my tests.)

Once the sumac seedlings have developed in my seed pots, I have transplanted them into my yard to establish this food source for bluebirds. Sumac is often viewed as a "weed" and cut down. I view this plant as a valuable native shrub with spectacular red fall foliage and striking red seed heads that stand out vividly against the cover of winter snows.

Many species such as American Robins, Gray Catbirds, Ruffed Grouse, and Wild Turkeys will consume its fruit. Sumac is a good winter food because the seeds are very persistent and are available even late in the winter unless other birds have already eaten them.

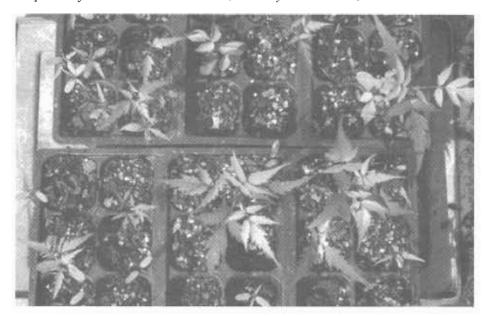
I have learned that I need to put cages around the developing sumac shrubs because the very succulent and soft new growth of young sumac is heavily used by deer. The protected plants have been very successful at establishing themselves.

I also attempted a more natural establishment procedure for growing sumac. I tilled a long strip in my yard and directly seeded the droppings into the ground. When I did this, the grasses and wildflowers quickly reinvaded and I never detected a single fruited plant developing from these sites.

I would encourage others to collect, not discard, droppings found in your nest boxes after the winter. Once you determine



Here are nest-box droppings close-up (nickel used for size comparison). The larger seeds are nannyberry. Most of the small seeds are from sumac, and the fiber seen in the photo is from the sumac seed heads. (Photos by Kevin Berner)



Here are plants that grew from seeds found in bluebird droppings following winter use of nest boxes for shelter. All of the plants are sumac except for the three-lobed leaves in the upper center; they are poison ivy.

the plants rhat bluebirds are surviving on during the winter, you too can encourage those plants within your own yard. This will help you to support bluebird winter survival and increase spring vigor while attracting bluebirds to your neighborhood for observation.

(Kevin Berner is Associate Professor in the Fisheries and Wildlife Department at the State University of New York, Cobleskill, and former chair of the NABS Research Committee. He can be reached by email at BERNERKL@Cobleskill.edu, or by postal mail at Fisheries and Wildlife Department, SUNY, Cobleskill, NY 12043.)

For Western Bluebirds as for humans, accumulated wealth encourages family stability

By Robert Sanders

Parenrs whose grown children have nor yer flown the nest can only sympathize with the Western Bluebird.

While female fledglings fly off on their own in late summer, their brothers typically hang around through the winter and into the next breeding season, living off the bounty of their parents' larder.

As with humans, though, as the money runs low, the kids split, according to a new study by scientists at the University of California, Berkeley.

Janis Dickinson, a research associate with the Museum of Vertebrate Zoology at UC Berkeley and a newly appointed associate professor of natural resources at Cornell University, discovered parallels between human and bird families while studying the evolution of delayed dispersal, or natal philopatry — the tendency for offspring to stay at or near home rather than look for a new place to live and breed.

Such behavior is common among cooperatively breeding birds as well as humans, and, at least in birds, it leads to close-knit families.

"The idea that inherited wealth promotes family stability comes from studies of cooperatively breeding birds and helps expand our theoretical understanding of the evolution of human social behavior," said Dickinson, who also directs the Citizen Science program at the Cornell Laboratory of Ornithology.

"What has been lacking is an experimental demonstration that resource wealth promotes delayed dispersal, leading to the continuation of relarionships between offspring and parents prerequisite for cooperative family life."

For bluebirds, "wealth" consists of mistletoe berries, an abundant winter food source growing on California oaks. Since the bluebirds also could be staying at home because they're babied by their parents — they're treated far better there than they would be outside their parents' territory — Dickinson manipulated this food source to see what the filial hangers-on would do.

"Wealth of resources is not the only feature of remaining with parents that could cause offspring to stay at home," Dickinson said. "The Western Bluebird fledglings stay on their parents' territory living in cohesive groups where they sleep together in a cavity or nesr box or in the mistletoe, forage together, and the mothers are nicer to their sons than they are to other males of the same age, even if those birds are members of their winter group.

"Since mothers show nepotism towards their offspring, this could also play a role in why sons stay. What our experiment shows is that reducing resource wealth causes sons to leave their parents, even if it means giving up nepotistic benefits."

Dickinson found that while half of all male offspring normally stick around during the winter, only eight percent stayed when she removed half the mistletoe from trees in the parent bluebirds' tetritory.

"Animals, including humans, can accumulate resources by staying in one place, or

they can stay in one place because of the benefits of access to accrued resources," she said. "This is a first demonstration that experimentally manipulating the resource itself reduces the phenomenon of delayed dispetsal, which means that the wealth—the amount of resources the parents have—causes delayed dispersal."

The results of her study with coauthor Andrew McGowan, a former museum researcher now at the Marine Turtle Research Group in the United Kingdom, were reported online last month in The Proceedings of the Royal Society, and will appear in print later this year.

"This experiment supports the idea that relative wealth of resources is the starting point for the evolution of philopatry and kin-based sociality," as proposed a decade ago by Cornell biologist Steve Emlen, the authors wrote.

Dickinson conducted her studies at UC Berkeley's Hastings Reserve and nearby ranches in Carmel Valley, California, where for more than 20 years researchers have been banding Western Bluebirds, *Sialia mexicana*, and tracking their family telationships.

The bluebirds, which live a maximum of about eight years but typically only three to four, tend to hold onto their territories throughout their lifetime. A typical territory might contain five birds overwintering together, including parents, sons, and immigrant females. Apparently because of delayed dispersal, when the sons leave in

Continued on the next page

the spring, they tend to nest nearby, creating an extended family

"There are families of a father and mother with rhree sons nesting nearby, a daughter a kilometer away, and an uncle up the hill, so it's common for family members to live quite close together," she said

Starting in 2001, Dickinson and undergraduate interns from UC Berkeley began cataloguing the mistletoe tesoutces available in each mating pair's territory, and during the spring of 2003, she and McGowan removed mistletoe from 13 territories — a Hetculean task requiring weeks of tree climbing and trimming.

In contrast to the situation on 13 undisturbed territoties, she noticed that sons in the depleted tertitories, rather than sticking around through the winter, left at the same time as their sisters in late summer. And they seemed to leave of their own volition, rather than being kicked our by their parents.

"We looked extensively and did not see much aggression directed ar offspring in hundreds of hours of observation during the dispersal stage. Instead, the fledglings were aggressive to each other," she said. "But we admit that parental eviction of offspring could happen very quickly, so even our extensive observation may not have been adequare to detect it."

Dickinson noted that development along California's Central Coast, from Santa Barbara County to Monterey County in particular, is leading to clear-cutting of the oaks that support mistletoe and provide winter food for the Western Bluebird. Combined with the declining tegeneration of blue and valley oaks and the loss of coast live oaks and tanoaks to sudden oak death, food resources for birds are taking a big hit.

"This close association with mistletoe implies that the declines of Western Bluebirds in California might be greatly exacerbated by conversion of the oak woodlands to agriculture, particularly for vineyard development," she said. "The bluebirds are

a signature species, but this is probably affecting other species as well. I think they should put vineyards in previously cleared fields, without cutting old-growth oaks."

Dickinson added, "We have learned much at Hastings about the cascading effects of removal of habitat on the social lives and winter survival of narive birds, from Western Bluebirds to Acorn Woodpeckers. Our work suggests that the biodiversity of central coastal California will be determined largely by how we treat the old-growth oak forests of California in the next decade."

The work was funded by the National Science Foundation.

(Robert Sanders works in Media Relations at the Univesity of California, Berkeley.)

David Magness dies

David Magness, former member of the North American Bluebird Society board of directors, died Aug. 25, 2005. He was 42 and lived in Whiteford, Maryland. He also had served on the board of the Maryland Bluebird Society. Cause of death was leukemia.

Mr. Magness owned and operated the Jennabird Company. He was an avid outdoorsman and environmentalist, and was well known for his knowledge of the Eastern Bluebird. He was a volunteer and educator at Eden Mill Nature Center.

He is survived by his wife Sandy, son Philip, daughter Jenna, and many family membets.

Next Bluebird deadline is Jan. 31

The deadline for the Winter 2006 issue of *Bluebird* will be Jan. 31. Earlier submissions always are appreciated. The editor prefers to receive material by e-mail at bluebird-editor@excite.com. Postal address is Karen Martin, PO Box 116, Griggsville IL 62340-0116.

Please note that these are new addresses.

Include a self-addressed stamped envelope if you wish return of manuscripts or photographs. Letters to the editor are welcome. Letters may be edited for length and content.

Time to renew?

Your address label, found on the back page, contains the date your NABS membership expires. Is it time to renew your membership? If so, please do it today, using the form on page 24. If you prefer not to cut the magazine, use a photocopy of the form or write on a sheet of paper the information requested, and send that with your payment.

11Ways to raise more bluebirds next year

Keep records. Review your bluebird trail records for the last two or three years. Move all of the nest boxes that were not productive.

Extend your trail. Add more boxes to those you have. Space them at least 500 feet apart, and mount them on 1/2- to 3/4-inch smooth metal pipe. Steve Gilbertson's idea of a five-foot length of electrical conduit mounted over a piece of rebar works very well. Whena considering locations, remember that bluebirds like power wires to perch on. And, remember that boxes nailed to power poles, wooden posts, or trees are raccoon feeders.

Set a goal. Plan to fledge at least three bluebirds per nest box location. The Minnesota bluebirder of the year in 2004, Gary Mentz, fledged 101 bluebirds from 13 pairs of boxes. That's 7.7 fledged per location.

Clean boxes. Any nest boxes that were left closed for the wintet should be cleaned no later than April 1 (for northern-tier states; earlier for more southern locations).

Close boxes. Any wooden nest boxes with entrance panels left open during the winter should be closed and made ready for nesting by April 1.

House Sparrows. Don't open boxes before April 1 (again, we are talking northern states here). House Sparrows will begin claiming nest boxes in February and March. If your boxes are open then, you might have unwelcome lodgers. It is worth noting that Gilbertson PVC boxes have shown significant sparrow resistance. You also can use in-the-box traps to catch House Sparrows. Do not release trapped birds. If all else fails, consider moving the nest box to a new location. Many locations are House-Spatrow free.

House Wrens. If House Wrens are using your nest boxes, try moving the boxes 300 feet from trees or to an area wirh litrle or no brush beneath the trees.

Tree Swallows. If Tree Swallows are dominating your boxes, try pairing the boxes. Place two in the same location, 10 feet apart. Swallows will take one, then defend the other box against occupancy by another pair of swallows. The swallows will allow bluebird nesting, however.

Help others. Help other people in your area with their nest boxes. Success on your trail is dependent, to a great degree, on additional nest boxes in the areas adjacent to your boxes.

Report your results to your country or state bluebitd organization. This is one method of collecting population information essential to successful management of bluebirds in the future.

Attend the annual meeting or conference of your county or state organization. Go to learn and share. If you can, attend the NABS national convention (this coming April 26-30 in San Antonio, Texas). It offers a wonderful opportunity to share your enthusiasm for bluebirds and to learn more about these wonderful birds.

(This article has been adapted from a contribution by Keith Radel in the February 2004 newsletter of the Bluebird Recovery Program of the Audubon Chapter of Minneapolis. The information is used with permission.)

Where do they all go?

20 years of following dispersing Tree Swallows

By David W. Winkler

have been studying Tree Swallows (Tachycineta bicolor) nesting in boxes near Ithaca, New York, since 1985. I came to my swallow studies after years of studying nesting gulls. Tree Swallows offered me the prospect of large numbers of birds nesting close together without the discouraging habit of eating each other's chicks. Add to that the fact that these tiny birds are remarkably resistant to the many impositions that biologists are wont to inflict on their subjects, and within a few years it became clear to me that this was a system that fit me extremely well.

We have never excluded bluebirds from our boxes, but given the combination of the swallow-farm densities (each about 22 feet (20 m from its neighbor) and the habitats (at first almost exclusively very near water and far from any trees) at which I decided to deploy my boxes, we very seldom get bluebirds in more than one or two percent of our boxes.

Thus, the story I can most effectively tell relates to the swallows, though an equally intriguing, though more difficult to discover, story awaits for bluebirds as well.

Any biologist who bands large numbers of birds eventually starts to wonder what happens to them once they have been released. Where do they go; how do they fare; why do some return home and others go great distances? Unfortunately, most of us must merely just "ring and fling" our birds,

knowing that we will very likely never recapture enough birds to start answering any of these questions.

By the early 1990's, the numbers of boxes we had erected on Cornell land around Tompkins County as well as the numbers of boxes that we had encountered put up by others on private land around the County had both become large enough that I decided we might actually be able to start answering some of these questions.

We built a database (dubbed "TOCO") that kept track of all the boxes we could find in Tompkins County, who owned them, what kind of permission we had to check them, etc. With this database as our guide, we started in the mid 90's to check many of the boxes on private land surrounding out large concentrations of boxes on Cornell land.

In the late 1990's, Rick Bonney, André Dhondt, John Fitzpatrick and I got a grant from the Informal Science Education group at the National Science Foundation to establish something we called the Cornell Nest Box Network (since transformed into The Birdhouse Network

birds.cornell.edu/birdhouse/>).

As part of this effort, we recruited and trained a group of volunteers around New York, eventually reaching a standing army of banders that numbered about 60 dedicated souls. As we increased this investment in our network for catching banded swallows, we began recapturing a

rewardingly large number of birds, both young birds breeding for their first time and older birds who had moved between breeding seasons.

Over the years 1985 through 1998, we banded 26,567 swallows as nestlings and recaptured 630 of them breeding in a box the following year (Winkler et al., in press). Of these, 355 were females and 257 were males (and a few were not sexed on recapture), the females being much easier to recapture in their box when breeding.

The females in this sample averaged a dispersal distance of about five miles (8.38 km) from rheir natal box, with some females being recaptured up to 120 miles (200 km) away. Males averaged a dispersal distance of about a mile and a half (2.44 km) with a maximum detected of only about 24 miles (40 km).

Thus, as in other analyses of avian dispersal (e.g., Greenwood and Harvey, 1982), females dispersed farther than did males.

One of the problems that has plagued researchers studying the dispersal distance distributions of birds has been that it has often been difficult to know whether the distribution measured reflected the true dispetsal behavior of the birds or was an artifact of the distances over which birds could have been detected. In other words, were birds nesting beyond the boundaries of the area we checked?

To check for this artifact we took a thousand random draws from all the boxes



A pair of juvenile Tree Swallows, left, await feeding by their parents. When they return to in the spring, these birds, if males, are likely to choose a nest site within 1.5 miles of their birth place. If females, the distance will be greater, averaging five miles from the natal nest. The birds on the right are Barn Swallows, also waiting to be fed. (Photo by Jim Williams)

where we could have detected a dispetsing first-year bird (i.e., all the boxes where an adult was captured and its band read). We compared these random draws with rhe actual distributions of distances that we derected and found that the swallows were far more likely to disperse less than six miles (10 km) than would have been expected and less likely to disperse at larger distances rhan would have been expected from our distribution of adult-capture boxes.

Thus, our study area of up to 240 miles (400 km) from Ithaca appears to have been large enough to detect a dispersal disrance distribution that was not merely an artifact of the distances we could have detected dispersers. And the results focus the interesting question of why rhese swallows, which migrate all the way to the Gulf Coasr and back every year, don't settle farther from home. We are very interested in pursuing these questions in on-going research.

The natal dispersal of swallows (and most other birds) is distinctive because virtually all young that fledge do disperse, and they can go very long distances. But these aren'r the only important shifts in the spatial lives of these birds, as breeding swallows sometimes change their breeding locations from one breeding season to the next.

To study this "breeding dispersal," we used the same recapture network that we used to detect natal dispersal and looked at which breeders change their places of breeding and why (Winkler et al., 2004).

As other avian studies suggested, breeding dispersal is much less common and involves shorter distances than natal dispersal, and virtually all the breeding dispersal events we had to deal with were within our intensively studied areas in and around Ithaca.

When dealing with our large collections of boxes at what we call five different "units" around Tompkins County, we made the rather arbitrary decision to call a breeder movement a dispersal event only if it involved the relocation of a bird to a different unit. Thus, we may have missed some of what others might have called dispersal events in the movements of birds by a few hundred meters across one of our units.

But we could be sure that birds going to different units really had changed their breeding site and the neighborhood around which they would be foraging for food, erc. As expected, not all that many swallows dispersed between breeding attempts: of 356 male breeders captured at

nests in multiple years, only four percent dispersed, whereas 14 percent of 1,459 multi-year females dispersed between breeding attempts.

Females were more likely to disperse after a failed reproductive arrempt (though abour 70 percent of the failed breeders remained site-faithful the following year). And the probability of dispersal declined gradually with age, with a little under 15 percent of one- and two-year old breeders dispersing and much less rhan five percent of females over five years old moving between breeding seasons.

These results taken together suggest a very interesting pattern of space use in these common birds. Because swallows routinely forage outside the immediate vicinity of their nest, they have a lot more in common with many colonial seabirds in their use of space than they do with territorial passerines (songbirds).

Every day during the breeding season, swallows are gathering and using information over a much broader expanse of space than most rerritorial passerines will see during an entire breeding season. Despite this expanded spatial experience, they disperse from their natal and breeding sites in a

manner apparently similar to the movements on many other songbirds.

It seems very likely that how far these and other migrant birds wander from home during rheir lives is limited not by rheit knowledge of other places bur by the costs and benefits of straying from home.

In our on-going work on movements in these birds, we are concentrating on methods that will allow us to follow individual birds to their breeding destinations rather than rely on a dedicated group of volunteers to sift among thousands of captures to find the relatively few that were banded previously.

(Dr. Winkler can be reached at the Department of Ecology and Evolutionary Biology, Corson Hall, Cornell University, Ithaca, NY 14853.)

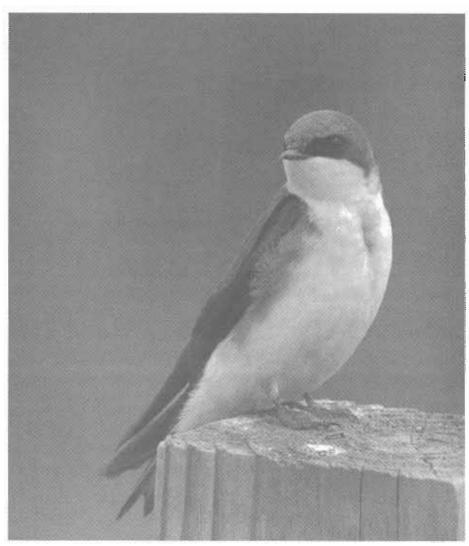
Literature used in preparation of this article:

Greenwood PJ, Harvey PH, 1982. The Natal and Breeding Dispersal of Birds. Annual Review of Ecology and Systematics 13:1-21.

Winkler DW, Wrege PH, Allen PE, Kast TL, Senesac P, Wasson MF, Llambías PE, Ferretti V, Sullivan PJ, 2004. Breeding dispersal and philopatry in the Tree Swallow. Condor 106:768-776.

Winkler DW, Wrege PH, Allen PE, Kast TL, Senesac P, Wasson MF, Sullivan PJ, in press. The natal dispersal of Tree Swallows in a continuous mainland environment. Journal of Animal Ecology.

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Male Tree Swallow on nesting territory: This bird most likely was hatched within a mile and a half of his chosen nesting site.

Smith, L. Sommers, D. Sosnowski, L. Srenzler, A. Terninko, B. Toner, B. Treiber, J. Van Niel, K. Waters, R Wells and family, L. Wheeler, D. Whittaker, J. Zarudsky, C. Zenger and M. Zettel.

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thought-provoking questions to earlier presentations of these results, and Charles McCulloch provided essential statistical advice. Some analyses in this paper were supported by a Cooperative Agreement (no. 829374) between Winkler and the National Center for Environmental Assessment, Environmental Protection Agency, Washington, DC and by an NSF LTREB grant to Winkler (IBN-013437).

Research Review

Begging sounds are benefit and danger

Baby birds must beg for food, making sounds and movements to encourage their parents to feed them. Sounds provoked by the wrong stimulus, however, can be clues for predators looking for a meal.

Researchers in Europe, working with Coal Tits and Great Tits, relatives of our chickadees, have learned how the young birds deal with this problem.

Sightless chicks responded to an articial stimulus imitating a predator. They begged when that noise was heard, the usual response when the birds heard their parents return to the nest with food. The begging sound would reveal the chicks to predators,

As soon as the chicks could see, however, they remained quiet when such artificial stimulus was given. While the chick that begs first and loudest might be fed more often, that same chick exposes itself to predation with quick response. The birds seemed to have evolved a trade-off and prudent behavior.

This study was reported in the Autumn 2005 edition of the Journal of Field Ornithology.

Bright color is OK

Does the bright colors of bluebirds make them more vulnerable to predation by hawks and owls? If you are bright blue and red, shouldn't you be more visible to predators? Apparently not.

A recent study showed that songbitds and their avian predators see colors differently. While potential mates and others of your species see you in all your glory, birds trying to have you for lunch find you less conspicuous.

Chickadee calls vary with predator type

Black-capped Chickadees use their "chicka-dee-dee" call to watn each other of predators, and change the call depending upon the size of the predator and its potential threat.

This research project was reported in a June 2005 issue of the magazine *Science*.

The warning call it used both to caution other chickadees about the presence of the predator and to summon chickadees and other bitd species to mob the predator and try to drive it away.

Chickadees have two different alarm signals. When flying raptors are seen, chickadees utter a high-frequency "seet" call. When a perched or stationary predator is detected, however, the small birds produce the commonly heard "chickadee" call. This is a mobbing alarm that calls other birds to come and help harass the predator.

The chickadees were found to vary the "chickadee" alarm call depending on the size of the predator. The "chickadee" call contained more "dee-dee-dees" for the smaller predator. The smaller test predator in the study was a Northern Pygmy-Owl, a significant threat to chickadees because is maneuverable in a woodland habitat. The bird used as the larget predator was the Great Horned Owl, less of a threat because the chickadees could more easily evade its attack.

The researchers, Christopher N. Templeton, Erick Greene, and Kate Davis, said the vocalization of the chickadee is very versatile, raising "fascinating questions about how finely chickadees can discriminate between similar stimuli, and how they categorize different aspects of their environment."

Grackles nesting in tree cavity

Here is a note on a cavity-nester from a bird species rarely employing such locations for its nest. Who would expect a Common Grackle to be nesting in a tree cavity?

A fisherman on Lake Oahe in South Dakota last summer noticed a grackle flying over the lake and landing on a tree in the middle of the lake. The bird did this several times.

The fisherman motored to the tree to see what was going on. To his surprise, he found parent Common Grackles entering a cavity with grasshoppers in their bills and exiting carrying fecal sacs.

He wondered if the fledglings would be able to get to shore on their first flights.

Habitat *is* important for nesting success

Some bird species find disturbed habitat (logged forests, for example) no longer attractive for breeding purposes while other species continue to use their previous territories even after disturbance. It has been thought that the birds choosing the disturbed habitat did so without cost. A recent study of Black-capped Chickadees in British Columbia shows that premise to be questionable. Nesting success of chickadees using mature mixed-species hardwood forest was compared with the success of chickadees on land that was regenerating after being logged. The propottion of nests that successfully fledged young was higher in the mature, uncut forest. Nest abandonment was the most common cause of failure. Chickadees lower in the social order of chickadees in a particular area had less nesting success. This study was published in the October 2004 edition of The Auk.

Elf Owl

Camera in box allowed observation of nesting activity

s a kid, I was fascinated by bird houses and especially with the idea of the observation nest box, one in which a plate of glass can temporarily replace the back of a nest box, allowing close observation.

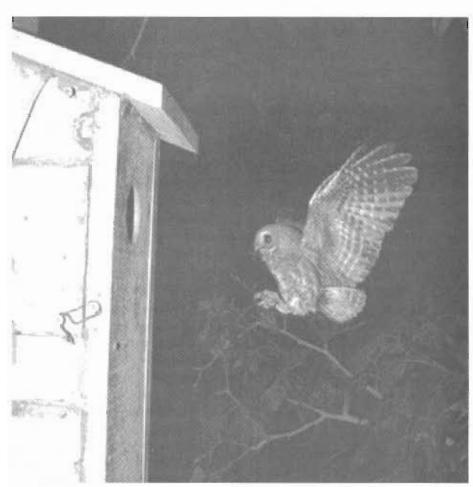
When my hnsband and I bought eight acres of desert at the mouth of an Arizona canyon, I put up a nest box sized for bluebirds even before our own house was built. My target species was the Elf Owl, a sparrow-sized, migratory insectivore that inhabits old woodpecker holes in trees and cacti in the southwest.

Flycatchers used rhe box until one winter a flicker enlarged the hole. On a balmy March night the windows were open well after dark when I heard a happy rootling call coming from the direction of the nest box. Could it be? Was that an Elf Owl?

I stepped outside and sure enough, the laughter-like calls of an Elf Owl were coming in waves from somewhere near that tree. A week later at sunrise an Elf Owl face filled the entrance of the east-facing box, a sight that filled me with hope that a pair had decided to nest 120 feet from my back door

They stayed, and nested every year for the next 10 years or so, hunting for insects at the porch lights and raising a brood every year.

Then, in 2003, my husband and I were revising our out-of-print hook on raptors and decided to add owls. We needed to learn a lot more about Elf Owls, so made



An Elf Owl coming home to the observation box. (Photos by Helen Snyder)

plans to watch and photograph our pair up close, as close as they would tolerare. All my life I'd dreamed of an observation nest box, and now it was time to make one.

With the help of biologist and artist friend Dave Utterback we made an observation nest out of a 2.5-foot long by 7-inch thick section of fallen limb containing a

classic Acorn Woodpecker cavity. We cut a 3x4-inch hole in the back and prepared a piece of glass to mount In its place temporarily during observation sessions. We then screwed plywood securely over the hole we'd cut in the back, and hung this modified log nest few feet from where the wooden home had hung before. We set

up an observation platform on scaffolding behind the next box.

Sure enough, the next March the owls returned and moved right into the new accommodations. Not wanting to risk disturbance by looking into the nest too soon, I watched from the ground as the adults incubated eggs and fed their small young on insects they caught at the porch lights.

To entice them to hunt nearer the nest, I hung a clamp lamp with a compact fluorescent bulb a few feet from the ground in the lowest limbs of the nest tree. The adults adopted this new fast-food source at once, and became oblivious to us sitting in chairs at the edge of the circle of light, swooping between observers to snatch crickets and moths a few inches from our feet. We and and a growing crowd of neighbors watched nightly from about 7:45 p.m. until 11:30, when chicks were full and refused further food. The parents stopped hunting and sat dozing on their perches a yard or two away from us.

When the raspy begging calls of the growing babies became audible from the ground, signaling that they were halfway to fledging, I climhed to the platform a few feet from the nest, unscrewed the plywood back of the box and duct taped in the piece of glass temporarily for the night.

Four half-grown babies stared back from inside, one cleatly a runt. I watched in fascination as the adults resumed feeding trips at once, blasting in to the nest cavity to stuff the chicks with crickets, katydids, moths and grasshoppers.

When I was in the tree the adults were even more oblivious to me than when I was on the ground. With four babies ro feed, food arrived every minute or two for the first hours after dark. All the thousands of food items were insects, with the exception of one small lizard and a blind snake.

But by waiting till the chicks were half grown I had missed much of the nesting cycle — early inspection visits, egg laying, incubation, and care of hatchlings — and



The camera equipment used in the observation box, to bring live images to a television screen. The pen is in the picture for size comparison.

I had a craving to see more. I found several internet 'bird cams' where tiny video cameras are set up to watch nesting owls and other birds. In 2005 I invested \$90 in a Night Owl Night Vision camera, a matchbox-sized video camera with its own invisible infrared source, a sensitive microphone, and 100 feet of cable with jacks for power, audio and video.

I mounted this on the ceiling of another wooden box the size of a half-gallon milk carton and hung it in place of the log observation nest, hooked it to the TV, and waited. Only the image of a sawdust floor filled the screen until an hour before dawn on March 11 when with a crash a larger-than-life Elf Owl landed in my TV.

Soon a pair was calling and a female flopped into the hox, squatted and began kicking and fluffing the sawdust litter. The image was sharp enough to easily tell the male and female apart by the patterns of polka-dots on their foreheads, and later to identify the insects they brought in.

The female roosted intermittently in the hole by day to guard it from other prospecting cavity-nesters and scout honeybees. Four gleaming white eggs were laid at three-day intervals in late April, and all hatched, three close together and a runt several days later. The female did all the incubating, brooding, and feeding of young, accepting insects from the male at the entrance and dropping to the bottom before gripping each carefully in a foot while tearing off minute mouthfuls for her babies.

Then one day a buzzing parasitic fly (*Protocalliphora occidentalis*) crawled in, down the walls, and over the back of the female to disappear in the nest litter, now damp and rank with droppings. Although as audible

Continued on the next page

to me as the honeybees, this fly elicited no response from the brooding female.

Fly larvae soon began to suck blood from the unfeathered bellies of the young. The runt became a casualty almost at once, succumbing to the blood loss before I noticed the maggots and removed them from the nest.

Much of the deep detail and drama of this nesting season would have been undetectable without the help of the tiny video cameta. I would surely have missed the next dramatic turn as the male Elf Owl abruprly disappeared late in the cycle, perhaps caught by a larger owl. I would have not known that the female then switched from 24-hour brooding to frantic hunting and fledged her remaining three young alone.

Without risking disturbance, from the living room I watched each youngster climb to the entrance and give a mighty push off into the dark and dangerous world beyond rhe nest box. I wished them well on their long road to independence and migration, and look forward to their return in spring.

REFERENCES FOR THIS ARTICLE

Henty, S. G., and F. R. Gehlbach. 1999. Elf Owl (Micrathene whitneyi). In The Birds of North America, No. 413 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Ligon, David 1968a. The biology of the Elf Owl, Micrathene whitneyi. Univ. Mich. Mus. Zool. Misc. Publ. 136.

Snyder, Noel F. R. and Helen A. Snyder. The Raptors of North America. 2006 (in press). Voyageur Press, St. Paul MN.

(Helen Snyder lives in Portal, Arizona, with her husband Noel. They retired there after a career of research on endangered birds including the Puerto Rican Parrot, the California Condor, the Everglades (Snail) Kite and the Thick-billed Parrot. They continue to write and travel as well as staying home and enjoying their backyard avian neighbors. Her email address is noelsnyder@vtc.net.)



The first observation nesting site created by Ms. Snyder was made from an Acorn Woodpecker nest built in a branch that subsequently fell from the tree. The



photos show the entry hole used first by the woodpecker, then by the Elf Owl, and the back of the cavity where a portion of the branch was removed and glass was installed in its place. The glass allowed observation.

Web sites for nest cams: Buying and watching

You can find a short video clip of my elf owl box action on this website, and you can read up on and buy a camera like the one I have here:

http://www.birdhousespycam.com/index.html

This website offers the same camera for sale:

http://www.thebitdshed.com/bawniowlneca.html

Coruell's Lab of Ornirhology has a number of nest box cams listed on this page which included an Elf Owl nest in 2005:

http://www.birds.cotnell.edu/birdhouse2/nestboxcam/ Chris Thompson has an excellent setup in an Easteru Screech Owl box in Texas: http://gargravarr.cc.utexas.edu/owl/

Here are web sites containing information on sound recording:

http://www.mbr-pwrc.usgs.gov/id/framlst/i3810id.html

http://www.owlpages.com/owls.php?genus=Micrathene&species=whitneyi

The Lesson of the Bluebird

By Helen S. Munro

hat do you get when you put bluebird enthusiasts in the same room? You get one bluebird story after another from one person after another, all helping one nest box at a time. You get stories of compassion, stories of rescue, stories of hope.

I find that watching bluebirds is addictive. I pur up special bluebird feeders filled with mealworms, homemade winter pudding, or any of the many products available at bird stores. This enables me to see the bluebirds more often. It helps *them* to survive.

Monitoring bluebirds is also addictive. Checking on a bluebird trail is like opening one Christmas present after another. Each box has a snrprise inside. It may be a bluebird nest, eggs, chicks, or fledglings, or finally a bluebird nest that is ready to be cleaned for the next barch of bluebirds. These Christmas presents may also come wtapped as the different stages of any of the other caviry nesters.

I am still working on listening for bluebirds. It takes some training. My first job is to learn the song by hearing it over and over. I do that by pinching the tail of a plush blnebird produced by Audubon! When I am outdoors, I think I hear the song. My eyes scour the tree limbs, the top of the nest box and the bird bath. Sometimes, I am rewarded with the streak of blue that is a bluebird coming in for a landing, I smile and enjoy the moment.

Bluebird Education

Education comes in three stages. The first stage is to know that something exits. I was introduced to bluebirds in 1995 through a meeting of the North Carolina Bluebird Society. In 1998 a friend gave me a bluebird nest box in exchange for joining the North American Bluebird Society. The concept that people can help bluebirds and other cavity nesters is awesome. It is a long



way from "Don't touch the baby birds. The mothers won't come back."

The second stage is to leath about the subject by using what other people know. It may be the directions for making a bird house. It may be the recipe for winter pudding. It may be learning that the "jizz" of a bird is shape and movement of a bird that allows identification without seeing detail. This stage of my bluebird education has covered the past 10 years. It is the result of reading the NABS newsletters plus as many as 10 other newsletters from regional bluebird societies. Being the editor for the North Carolina Bluebird Society newsletter has made me shift through many bluebird articles. Speakers at different bluebird meetings have enriched my knowledge. Bluebirds have enriched my life.

The final stage of this education is to take all that has been learned and do something original with it. Perhaps it is creating a new nest-box design. It may be substituting grits in the basic winter pudding of peanut butter, lard, corn meal, etc. It may be writing an article like this, commenting on one aspect of bluebirding.

Bluebird Societies

My intent here is to point out the many similarities between bluebirds and bluebird societies, including the North American Bluebird Society. First, without bluebirds, there wouldn't be NABS or any other bluebird society. On the flip side of that, without the bluebird societies, including NABS, there would be fewer bluebirds.

Bluebirds are the poster children of the cavity nesters. Their beauty (brilliant blue with rust and white), their behavior (nest-box inspection and role of siblings in helping to feed subsequent young) and their ferocity (dive-bombing monitors and competing against other birds for the use of a cavity) helps us identify with these amazing birds.

It is rhis ferocity that bluebird societies need to emulate. We need to continue to grow as organizations. We need to expand our goals from bluebird conservation to include all the other cavity nesters (including Ivory-billed Woodpeckers), all the other birds, and the rest of the natural world that seems to be disappearing under the expansion of mankind.

My husband was asking about the results of different blnebird surveys and I was sharing with him numbers from Montana and Nebraska where a total of mote than 45,000 bluebirds were reported ro have fledged last year. His comment was that "with that great a number fledging, why are bluebird societies still necessary?"

Without the continued efforts of all bluebird societies to educate the public (or hnsbands) we would be back to the point where the bluebirds are once more just another endangered species. It is a fight that is harder after the initial successes because the need does not appear to be critical. NABS was a big part of that initial success. It is our job to see that it continues to be.

(Helen S. Munro president of and editor for the North Carolina Bluebird Society, and secretary of the North American Bluebird Society. She can be reached by email at hsmunro@ac.net.)

Bird song explored and explained

Birdsong ptedates human voice. Bitds were here long before we were. The mystery of this natural music has been with us forever. Why do birds sing? Why does the Easrern Phoebe endlessly sing such a simple song (feeBEE, FEEbee), a song it instinctively knows, while the Brown Thrasher knows thousands of songs, and learned them all?

Three books recently published explore this subject in very different ways.

Let's begin with "Birdsong" by Don Stap (Scribner, 272 pages, \$24). Stap frequently writes abour birds for various publications and who has another wonderful book to his credit ("Parror wirhout a Name"). Here, he explores avian music through the work of Donald Kroodsma, a university professor who has studied birdsong for over 30 years. Kroodsma was recognized by rhe American Ornirhologists' Union in 2003 as "the reigning authority on the biology of avian vocal behavior."

Stap follows Kroodsma through the woods of Massachusetts, recording the songs of Black-capped Chickadees (they don't all sound alike), and then into the forests of Costa Rica to capture on tape the strange calls of the Bellbird. "For two or three seconds — it seemed much longer — the Bellbird remained frozen in this posture, irs mouth open, almost unhinged it seemed, appearing for all the world like a bird about to cough up a mango," Stap writes. "The muscles on the bird's neck and upper back swelled and contracted. His chest heaved. His throat tippled. Still, his mouth was agape. Then, as if someone has sneaked up behind rhe Bellbird and squeezed him, he emitted an explosive BONK." The song also contains whisrles and wheezes, and the bird sings this strange song hundreds of times some days.

Why?

Kroodsma records and analyzes. Stap follows and reports. The result is a book

Book Reviews

By Jim Willliams

capturing in equal measure science and its passions, adventure, discovery, and a telling portrait of Kroodsma, a man who loves so very much what he does that he could easily be envied. When the book ends, we want both men to pack for another trip and rake us along again.

Or, you could read Kroodsma's own account of his work with birdsong. He has written "The Singing Life of Birds: The Art and Science of Listening to Birdsong" (Houghton Mifflin, \$28).

Here is a much more detailed presentation of what the author has learned about the vagaries and varieties that birds broadcast. He explores thoroughly the reasons some birds know their songs inherently while others learn by listening. The book contains many sonograms, graphic representations of birdsong, much like notes for music. It also includes a CD of birdsong, with explanation in the rext of exacrly what you are hearing. In some cases the songs have been slowed so each note or phrase is distinct to the human ear, your chance to eavesdrop on another world.

Read Stap first, then go to Kroodsma himself.

The third book is "Why Birds Sing" by David Rothenberg (Basic Books, \$26). Rothenberg is a musician fascinated with the music of birds. His account ranges from ancient writings on birds to neuroscience. He tells of taking his clarinet to Australia to play duers wirh a bird known as Albert's Lyrebird. Rothenberg presents an overview of the world's first music from a musical point of view.

Fiction and poetry about birds: this book is a rare bird

Books about birds, the how-what-where of birds, are not hard to find. Those books are robins and sparrows, seen everywhere you look. Good fiction and good poetry that focuses on birds, that is a different story. Those books are rare birds.

Another part of the search problem is that bird poetry in the wrong hands can go sappy in a second, and fiction can deal with birds that have human names and all-to-human attributes.

"Birds in the Hand, Fiction and Poetry about Birds", however, is a wonderful book, a collection of dead-on writing that touches birds from many different angles. Edited by Dylan Nelson and Kent Nelson, it provides insight into the many ways birds are part of our lives.

The poems found here are complete. Some of the fiction is excerpted from longer works. There is, for example, a chapter from Howard Norman's chilly Newfoundland novel "The Bird Artist." Barbara Kingsolver is here, and so is Louise Erdrich.

We have Billy Collins, T. C. Boyle, W. D. Snodgrass, Flannery O'Connor, Eudora Welty, Robert Penn Warren, Wendell Berry, Jim Harrison, Barry Lopez, Seamus Heaney, and many others.

There is a story of a hunter who looks too deeply into the eyes of a dying woodcock, of a boy who runs a turkey to ground, about a man who works a con selling wild pigeons as homing birds. There is a poem about vultures by David Bottoms in which he describes them as "... dwarfed transfiguring angels ... who pray over the leaf-graves of the anonymous lost ..."

These are loops of life intersected by birds, collisions, if you will, explained to us by rare storytellers. The book was published by North Point Press.

Affiliates of the North American Bluebird Society

The North American Bluebird Society serves as a clearinghouse for ideas, research, management, and education on behalf of all bluebirds and other native cavity-nesting species. NABS invites all state, provincial, and regional bluebird organizations to become NABS affiliates in "A confederation of equals all working together toward a common goal...a further partnership in international bluebird conservation". No cost is associated with affiliating with NABS. Your affiliated organization will be recognized

and listed on the NABS web site. If your organization has a newsletter, please forward a copy to our headquarters. To find out more about becoming a NABS affiliate, read our Affiliate Letter. Notice: If you are listed below, please check listing to see if it is current. If not, please send correct contact information to webmaster@nablucbirdsociety.org.

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