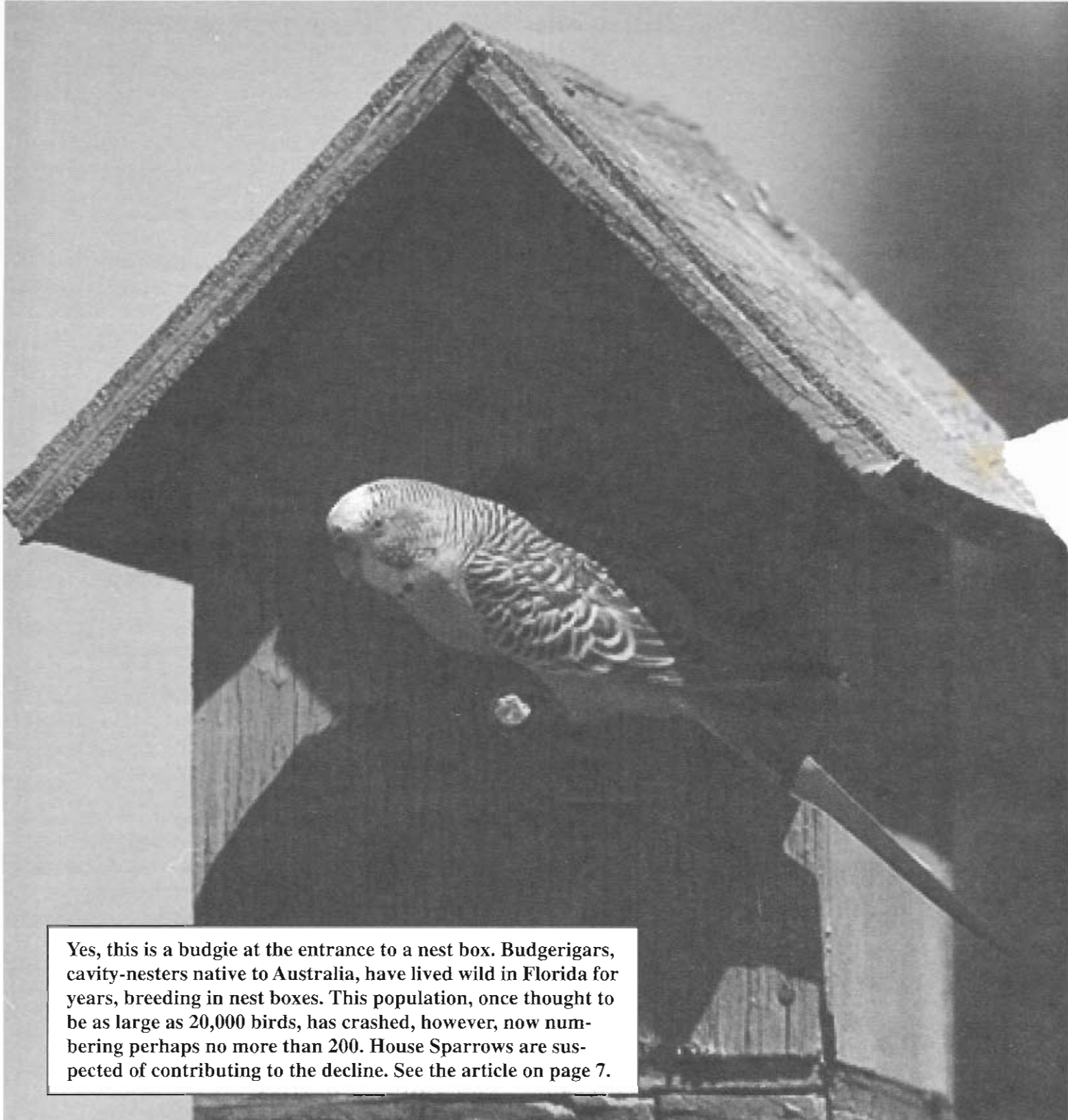


Bluebird

Journal of the North American Bluebird Society

Fall 2002, Vol. 24, No. 4



Yes, this is a budgie at the entrance to a nest box. Budgerigars, cavity-nesters native to Australia, have lived wild in Florida for years, breeding in nest boxes. This population, once thought to be as large as 20,000 birds, has crashed, however, now numbering perhaps no more than 200. House Sparrows are suspected of contributing to the decline. See the article on page 7.



North American Bluebird Society

Founder
Lawrence Zeleny

President
Douglas LeVasseur

Vice President
Joan Harmet

Treasurer
Anne Little

Secretary
Darlene Sillick

Past President
Ray Harris

Directors

Steve Garr, 2003
Tennessee

Bernie Daniel, 2003
Ohio

David Magness, 2003
Maryland

Alicia Craig, 2003
Ohio

David M. Cook, 2004
California

Arlene Ripley, 2004
Maryland

Ervin Davis, 2004
Montana

Randy Downing, 2004
Illinois

Teresa Kromel, 2005
Pennsylvania

Jim McLochlin, 2005
Nebraska

Stephan Pelikan, 2005
Ohio

Kimberly Williams, 2005
Michigan

Executive Director
Lisa Bulick

Executive Director Emeritus
Mary D. Janetatos

From the President

Doug LeVasseur

This past summer has been filled with fun for Ethel-Marie and me. We have been enjoying both the bluebirds and bluebirders as never before.

The highlight of our summer had to be the NABS 2002 Annual Conference held in Penticton, British Columbia. The programs, field trips, and hospitality extended to NABS members by the Southern Interior Bluebird Trails Society were exceptional. Thanks once more to Sherry and Marion Linn, Greg and Terry Tellier, and all the SIBTS members for the hard work they did to make our 25th conference such a pleasant experience.

The NABS annual conferences are becoming more and more popular with our membership and better attended with each year. It would be a pleasure to see all of you next spring in Kearney, Nebraska, along the Platte River where bluebirders are being scheduled to cross paths with the largest migration of Sandhill Cranes and waterfowl in North America.

Another enjoyable bluebirding activity I have participated in this season is taking a turn at answering queries sent to the NABS bluebird hotline. I have found that the upside to being on the answering end of the hotline is that it has given me the opportunity to develop some new e-mail friendships with a number of our members.

If there is a downside it is in the nature of the hotline. People contact the hotline when they have problems. A typical hotline query begins with an often rather graphic and sometimes heart-wrenching description of a bluebird trail catastrophe followed

by "What did I do wrong?" or "What should I have done differently?"

It is important to remember that some events are simply beyond our control. A spring snowstorm that sweeps across eastern Alberta or upstate New York may wipe out hundreds of nesting bluebirds, but is far beyond our control. An especially crafty raccoon bypasses a predator guard that functioned well in past years. A House Sparrow or wren evicts our precious bluebirds when we have our back turned for just a few hours. Nature can be so cruel at times — there is no doubt about it and little we can do about it either.

And I do feel the pain through the words of those who have lost "their" bluebirds. As emotionally devastating as the loss of a favorite nest of bluebirds might be, it seems the bluebirds still leave something behind for us. It might be a simple lesson about the virtue of hope. For even under such dreadful circumstances I have yet to find the bluebirder who does not harbor hope for a second nesting of bluebirds this year or the hope that the bluebirds will return next spring.

I wish to finish by thanking all NABS members who took the time to complete and mail in the survey sent out last spring in *Bluebird*. The results of the survey were in some respects surprising and in other respects confirmed long-suspected beliefs. I have always suspected that bluebirders did not fit into the category of the armchair conservationist. The survey confirmed the fact that our members not only talk the talk but we walk the walk of the true conser-

Continued on page 3

Four elected to NABS board

At the convention in British Columbia this summer, NABS members elected four people of the board of directors. Here are brief profiles of the new directors.

Teresa Kromel of Mifflintown, Pennsylvania, is an environmental education program Specialist for the Pennsylvania Department of Conservation and Natural Resources, Bureau of State Parks. She has earned several awards for significant accomplishments in conservation of natural resources. Her favorite of many on-the-job responsibilities to help connect Pennsylvania citizens to their environment is coordinating bluebird trails in 60 state parks with more than 200 volunteers.

Jim McLochlin of Omaha, Nebraska, keeps good track of real bluebirds on a trail for the Audubon Society of Omaha, and of virtual bluebirds on his personal web site, The Bluebird Box. While at home with technical computer environments, Mr. McLochlin also is at home on the bluebird trail in the natural environment of Neale Woods Nature

— president

Continued from page 2

vationist. Somewhere in the neighborhood of 97 percent of our membership monitor bluebird trails of from one to hundreds of nest boxes.

And I believe it is this kind of participation that binds us together. I may be alone walking my bluebird trail on a Sunday afternoon in June, but at the same time I know there are other bluebirders in California, Quebec, Florida, and British Columbia who are walking their trails too, and I feel their presence, and it gives me hope not just for our bluebirds but for all of our natural heritage.

Center in Omaha.

Stephan Pelikan of Cincinnati, Ohio, describes himself as an avid birder, a fairly competent plant taxonomist and a pretty darn poor classical guitarist. He nicely balances these hand-on activities by spending time in the halls of the University of Cincinnati as Prof. Pelikan, dealing with the more abstract world of mathematics.

Kimberly J. Williams of Haslett, Michigan, blends the needs of mammal cavity nesters, our native bats, with bluebirds' needs. She is chief executive officer of The Organization for Bat Conservation. As a professional zoologist, she has an extensive background in animal breeding, research, veterinarian treatment, and rehabilitation. To promote bat conservation. Ms. Williams develops and presents educational programs, and publishes a wide range of information.

Send items to historian

Your bluebird-related stories describing events and personal experiences can be sent to the new NABS historian, Marty Raiser-VanErt. You can find her at 39755 Highway 92, Carson, IA 51525, e-mail fvanert@aol.com.

New NABS assistant

NABS has a new employee. Working as administrative assistant in our Wilmot, Ohio, office now is Rebecca Cyphert. She and executive director Lisa Bulick can be reached by phone Tuesday through Friday from 10 a.m. to 5 p.m. The number is 330/359-5511.

Bluebird

Published by
The North American
Bluebird Society

P.O. Box 244
Wilmot, OH 44689

Lisa Bulick
Executive Director

330-359-5511

lisabulick@nabluebirdsociety.org
www.nabluebirdsociety.org

Questions should be directed to the NABS headquarters address/telephone number shown above.

The NABS web site offers answers to many questions.

Editor: James J. Williams
345 Ferndale Road N.

Wayzata, Minnesota 55391
E-mail two-jays@worldnet.att.net

Bluebird/Sialia (ISSN 0890-7021) is published quarterly by the North American Bluebird Society, P.O. Box 244, Wilmot, Ohio 44689. Subscription price is included in annual membership dues. Single copies: \$5. Write for information about bulk quantities. Checks and money orders are made payable to North American Bluebird Society, in U.S. funds. Issues are dated Winter, Spring, Summer, and Autumn and appear approximately on the fifteenth of January, April, July, and October. Deadline for submission of material is three months prior to date of publication.

Letters to the editor and articles in this magazine express the opinions and positions of the authors. Articles published do not necessarily represent the opinions and positions of the officers, directors, or employees of the North American Bluebird Society.

For advertising information, contact the executive director.

North American Bluebird Society ©2002

Bluebirds and cranes

NABS 2003 convention, Kearney, Nebraska

Bluebirds will share the landscape with hundreds of thousands of migrating Sandhill Cranes and geese during the 2003 annual convention of the North American Bluebird Society. Members will gather in Kearney, Nebraska, March 20-23 for the meeting.

Kearney is located along Interstate 80, just north of the Platte River at the point where migrating cranes mass to feed and rest as they move north to nesting grounds. The cranes here create one of the true birding spectacles in North America.

This conference is being planned and presented by Bluebirds Across Nebraska.

The Holiday Inn Hotel and Convention Center will be conference headquarters. A block of rooms has been reserved at the Holiday Inn, the Wingate Inn, and Hampton Inn. Please mention the NABS convention when you register.

Reservations at these motels or at other accommodations in the area and for the convention itself should be made as soon as possible. The crane migration attracts thousands of birders from around the world. Rooms can be hard if not impossible to find at the last minute. (See list of motels and telephone numbers.)

The conference will open Thursday, March 20, with four workshops: Nature photography by Don Brockmeier, What is Bluebird-L by Jim McLochlin, Hosting a conference by Dorene Scriven and Dean Sheldon, and Newsletter editing and design by Jim Williams. A field trip that day will visit blinds for viewing of Sandhill Cranes.

Friday, March 21, is filled with field trips. Chose from visits to the Museum of Nebraska Art, the Minden Opera House, and the Archway Monument, or trips to Greater Prairie-Chicken leks, the Crane Meadows Nature Center, and the Rainwater Basin. Sandhill Crane blinds also are on the trip list.

That evening, dinner will be casual with entertainment featuring speakers John Acorn and Al Batt.

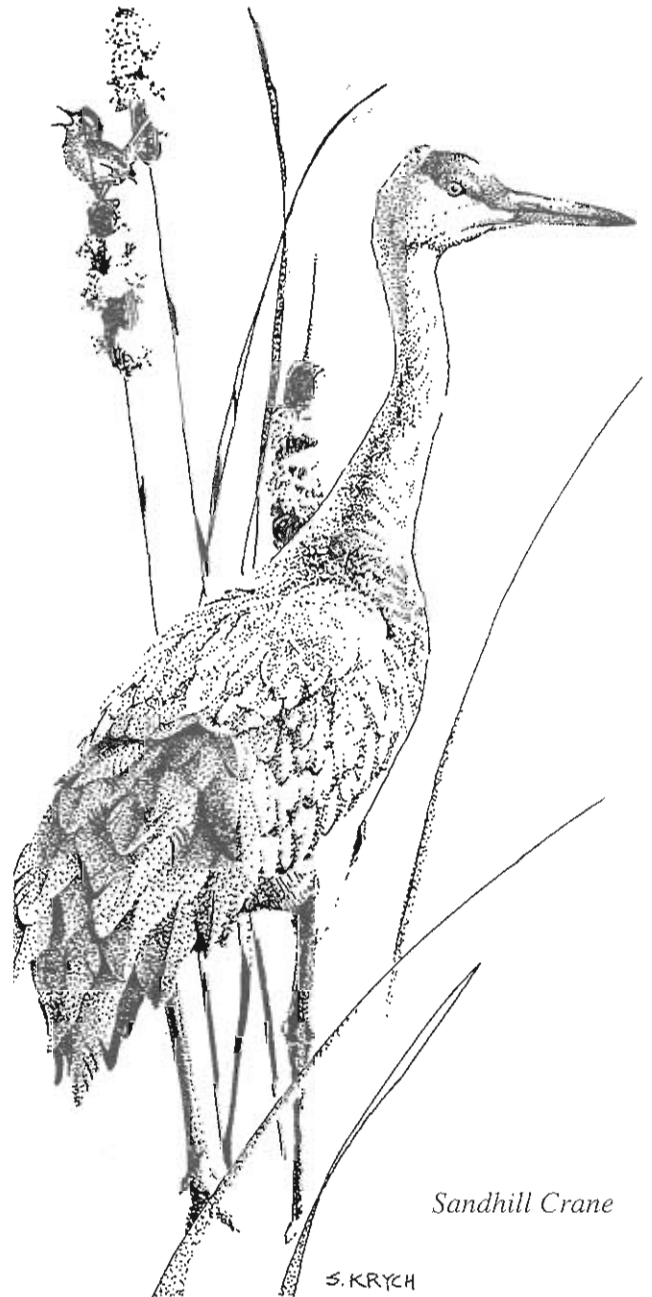
Saturday, March 22, the conference will be in session from 8 a.m. to 4:30 p.m. with a full schedule of speakers, plus displays and sales tables. The banquet that evening will feature NABS awards, a silent auction, and speaker John Acorn.

Sunday, the concluding day of the event, will offer another trip to the crane blinds.

Registration forms for the convention will be available

in the Winter issue of Bluebird. To request a form now, call, write, or send an e-mail message to Bill Seibert, 2115 S. 114th St., Omaha, NE 68114, 402/334-8691, bybbs@tconl.com.

Again, registration for both the convention and your rooms should be made as soon as possible.



Sandhill Crane

Complete convention information can be found on the NABS web site, www.nabluebirdsociety.org.

Conference speakers

John Acorn, Edmonton, Alberta, is writer and host for the television show, "Acorn, the Nature Nut." He is author or co-author of several field guides on bugs, butterflies, and birds.

Al Batt, Hartland, Minnesota, is a storyteller and humorist. He writes for newspaper cartoon strips. He is president of the Minnesota Ornithologists' Union.

Kevin Berner, Richmondville, New York, is NABS research director. He is professor of wildlife biology at State University of New York.

Ron Cisar, Omaha, Nebraska, a high school biology teacher, is past president of the Audubon Society of Omaha. He speaks on environmental issues.

Myrna Pearman, Red Deer, Alberta, is a biologist and site manager of the Ellis Bird Farm. She is author of four books, including the recently published "Mountain Bluebird Trail Monitoring Guide."

Paul Tebbel, Kearney, Nebraska, is manager of the National Audubon Rowe Sanctuary in Kearney. He is one of the nation's leading authorities on Sandhill Cranes.

Hotels and motels

Holiday Inn — 308/237-5971 or 800/465-4329
Hampton Inn — 308/234-3400 or 800/426-7866
Wingate Inn — 308/237-4400 or 800/228-1000
AmericInn — 308/234-7800
Best Western Inn of Kearney — 308/237-5185
Midtown Western Inn — 308/237-3153
Budget Dollar West/RV Park — 308/237-5131
Budget Motel South — 308-237-5991
Comfort Inn — 308/237-5858 or 800/228-5150
Country Inn & Suites by Carlson — 308/236-7500 or 800/456-4000
Days Inn Motel — 308/234-5699 or 800/325-2525
Fairfield Inn — 308/237-0838 or 800/228-2800
First Inn Gold — 308/234-2541 or 800/652-7245
Holiday Inn — 308/237-5971 or 800/465-4329
Holiday Inn Express — 308/234-8100 or 800-Holiday
1st Interstate Inn — 308/237-2671
Motel 6 — 308/338-0705
Ramada Inn — 308/237-3141
Super 8 — 308/234-5513 or 800/800-8000
Western Inn South — 308/234-1876 or 800/437-8457
Western Motel — 308/234-2408

Campgrounds

Budget Dollar — 308/237-5131
Ft. Kearney State Recreation Area — 308/865-5305
Clyde & Vi's Campground — 308/234-1532

Bed & Breakfasts

Park 5th Avenue — 308/237-3310 or 800/440-3886
Woodland Park — 308/236-9279

Review

Help for Mountain Bluebird monitors — and for everyone else, too

Mountain Bluebird Trail Monitoring Guide. Myrna Pearman. Published by Red Deer River Naturalists, Red Deer, Alberta, Canada. Soft cover. 56 pages, 8.5 by 5.5 inches, illustrated in color and black and white with drawings and photographs. For purchase information, contact Ellis Bird Farm Ltd, Box 5090, Lacombe, AB T4L 1W7 Canada.

Bluebirders are fortunate to have several if not many good books available that offer guidance and helpful advice on most facets of attracting and assisting these beautiful creatures. My bookshelves hold three volumes to which I refer often. In the Summer 2002 issue of *Bluebird* we reviewed the new *Bluebird*

Monitor's Guide (Cornell), a fine addition to your shelves.

Another new book arrived a few weeks ago, Myrna Pearman's *Mountain Bluebird Trail Monitoring Guide*.

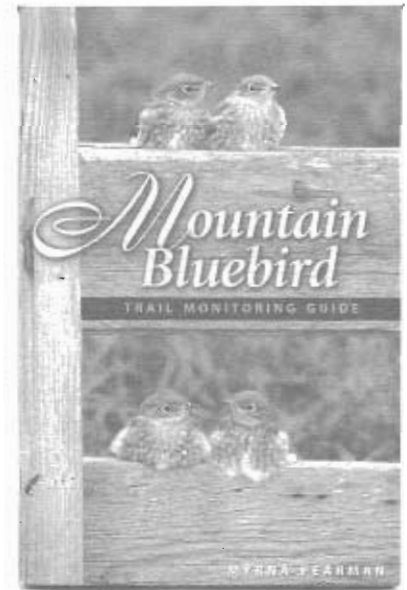
Don't stop reading if Mountain Bluebirds are not in your neighborhood. This is a book useful from coast to coast. Ms. Pearman thanks over 50 contributors from California to Ohio for assistance in the book's preparation.

The book covers the basics, beginning with a 12-page discussion of the Mountain Bluebird, its conservation and biology. Nest-box designs are discussed and illustrated. Plans are included. Information needed for successful creation and management of a nest-box trail is well presented. Trail problems and challenges are examined. Other bird species that might become box tenants are discussed.

The author provides a bluebird life-cycle chart, with photos of birds from egg to fledgling, both in the hand and in the nest, and a troubleshooting chart.

Of particular merit is the design of the book. This book is as well designed as the bluebirds themselves; it is beautifully done from cover to cover.

This book would be a welcome addition to any birder's library. — *Jim Williams*



Treated-wood products

Caution is urged, for both humans and birds

The use of treated lumber for bird nest boxes has been much discussed lately. Treated lumber has been soaked with chemicals of one kind or another to retard rot, decay, and insect attack. The safety of such treatment, regarding both humans and birds, has become a question.

An article in *The New York Times* in June told the story of a Mississippi woman whose long illness finally was diagnosed as arsenic poisoning. Police began an investigation focused on her husband. FBI testing showed that he had more arsenic in his system than she did. An attempted-murder investigation then became a consumer lawsuit.

The couple in the story had been building a cabin using treated lumber. They had worked indoors, handling and cutting the wood, but without taking recommended precautions. They reportedly did not wear gloves, dust masks, or goggles while sawing. They did not work outdoors, and they burned the scraps, something one should never do, according to *The Times* article.

Arsenic is one of the compounds used to preserve wood. The actual chemical is chromated copper arsenate or CCA. It is the predominant wood preservative in the United States, according to *The Times* article, and subject of a number of product liability lawsuits. In addition to arsenic poisoning, the compound is said to cause cancer.

While lawyers say that CCA-treated wood poses risk to users, the wood products industry disagrees, citing studies that show no significant health risks to incidental exposure. The industry agrees that working with

the wood in an improper fashion can be dangerous.

The wood products industry and the Environmental Protection Agency (EPA) have announced that treatment of wood products with CCA will be phased out next year. A new generation of non-arsenic preservative products will be used instead.

In the meantime, exactly how dangerous working with these products might be is unknown and likely to remain so. The industry agreement with the EPA included a deal to “to put aside a long-awaited assessment of the threats faced by people exposed to the carcinogenic arsenic” used in wood treatment, according to an article in the newspaper *USA Today* this summer.

Bluebirders using treated lumber of any kind are advised to work with the driest wood available, and to follow all recommendations for use of masks, goggles, gloves, and clothing that covers arms and legs. Consumers should be aware that while information on safe use of the lumber should come with the product, that is not always the case.

Kevin Berner, NABS research director, said that in the past the organization has chosen to err on the side of caution when it comes to treated wood products.

“The worst part of these boards is cutting and inhaling,” he said. When you get fresh pressure-treated wood you often actually see the chemicals dripping out of them. At the very least, it is probably not good to expose any life to those fluid chemicals.

“I suspect that once the board is completely dry there would be

minimal exposure to the copper arsenate,” he said. “But, another possibility is that birds could be exposed to chemicals that aren’t immediately lethal but could build up in the bird’s system and cause later problems.

“I guess I would prefer to avoid these products until I saw research that says there is no problem,” Mr. Berner said.

He added that he had spoken about the problem with Ward Stone, New York state wildlife pathologist. “Mr. Stone felt that any potential leaching of the toxic compounds, the disposal problems, and human hazards while working with the products may be more serious than the immediate problems to the birds using nest boxes,” Mr. Berner said.

Two other chemicals also have been used to treat wood — creosote and pentachlorophenol (also called penta). Both, like the arsenic compound, are said to be highly toxic. Caution is urged in use of wood treated with any of these products.

Finally, there is no environmentally sound way to dispose of treated wood once it has outlived its use or of the scraps created during its use in a building project. Burning produces highly toxic fumes. Disposal in a dump or landfill must be done by a licensed hazardous waste handler.

— *Jim Williams*

Florida's wild Budgerigar population met stiff nest-box competition

Budgerigars — birds often called budgies or known as parakeets and most familiar to many of us as caged pets — are cavity nesters found wild in Florida, but perhaps not for much longer.

The Florida population of Budgerigars, thought to have once exceeded 20,000 birds, is less than 200 today. The wild population was built by captive birds intentionally released; a few escaped captivity. From the late 1970s into the 1980s, the species thrived along both the Gulf and Atlantic coastlines in Florida. Budgies raised their young in nest boxes built for them.

An article in the June-July 2001 issue of *North American Birds* (American Birding Association) written by Florida ornithologist Bill Pranty, describes the rise and fall of this introduced species, native to the open interior portions of Australia.

The first wild budgies appeared in the central Gulf region of Florida in the 1950s. About 30 years later the population crashed, and it is not expected to recover. Mr. Pranty says in his article that the “causes of the population decline are unknown, but nesting competition with House Sparrows may have been the primary influence.”

Although this bird species has been released or escaped in many regions of the world, Florida is the only place where it established itself as a successful breeding population, according to Mr. Pranty.

A study of the breeding habits of the bird was done in 1979 by A. E. Shapiro. She monitored 31 nest boxes daily from mid-April to mid-December. According to the Pranty article,



Budgerigars used nest boxes built for them, but found competition from two other introduced species — European Starlings and House Sparrows — to be more than they could handle.

Ms. Shapiro's research showed that Budgerigar's defended their nest boxes for several months before and after the breeding season. The birds nested from March through November, most nests initiated in June and August. Average clutch size was 5.6 eggs, about 41 percent of which produced fledglings, according to the Shapiro study.

The Florida birds enjoyed good climate and steady and reliable sources of food and water. The Florida birds were ready users of bird feeders and bird baths. Observations suggest that their primary food in Florida was/is commercial bird seed.

Competition for nesting cavities, with both House Sparrows and European Starlings, is thought to be the major factor in the decline of the Budgerigar population in Florida. While budgies used natural cavities and unusual man-provided opportuni-

ties (boat davits and street lamps, among others) for nesting, the majority of the population used custom-built budgie boxes, according to Mr. Pranty. Some of these contained multiple apartments.

The small entrance hole in these boxes kept starlings out, he explained, but allowed easy entry by House Sparrows. Sparrow competition included puncturing budgie eggs. Starlings proved to be major competitors for natural cavities.

In at least one area of Florida where the birds had been common, population decline is attributed by Mr. Pranty to a reduction in the number of people who provided nest boxes. Redevelopment of the community caused relocation of the people who had maintained the boxes.

(*North American Birds* is published quarterly by the American Birding Association, under the direction of editor Edward Brinkley. The article on Budgerigars appeared in Vol. 55, No. 4, pages 389-397. Contact Mr. Brinkley at 9 Randolph Ave., Cape Charles, VA 23310, e-mail ensiferra@aol.com.)

Back issues available

Back issues of *Bluebird* magazine can be purchased for \$5 each. Write the NABS office at P.O. Box 244, Wilmot, OH 44689. Please make checks payable to NABS. Allow 60 days for retrieval from archives and mailing.

Gilwood nest boxes do well in Minnesota, New York studies

Minnesota

By Keith Radel

For 11 years our bluebird trail has had over 500 nest boxes in approximately 250 locations in Rice County, Minnesota, south of Minneapolis. Most of the boxes are paired with a 10-foot spacing. Due to high house sparrow concentrations, and many, many raccoons, we use a lot of Gilbertson house-sparrow resistant PVC boxes mounted on (the recommended) half-inch electrical conduit and rebar pole assembly. We also have a lot of Peterson nest boxes, all with the standard oval entrance hole (2 1/4 X 1 3/8 inches).

Anytime a new nest box design comes along, we usually install a few to do a comparison with the ones we are currently using. We've tried 20 different nest box designs.

In 1999 we decided to study the Eastern Bluebird entrance hole preference between the Peterson nest box oval hole and the Steve Gilbertson Gilwood entrance hole. At 11 established bluebird nesting sites (in place for at least five years) where Peterson nest boxes were paired 10 feet apart, we removed one Peterson and installed a Gilwood nest box three feet from the remaining Peterson.

We made certain the Gilwood entrance hole was the same height and faced in the same direction as the Peterson entrance hole.

Nest boxes were checked once a week by Jim Newport, John Stern, Rose Holz and David Holz, and myself. Our comparison is based on only the first nesting each year. This allowed the bluebirds to choose the



The Gilwood box, designed by Steve Gilbertson (35900 Dove St., Aitkin, MN 56431), has a floor 3 1/2 by four 1/4 inches. It is characterized by a larger entrance hole bisected by a metal rod on which the front panel pivots (for cleaning and observation).

box they preferred, because both nest boxes in each location were not occupied when they arrived after migration. (We have a lot of Tree Swallows nesting in our boxes, but usually two to three weeks later than the bluebirds' first nesting.)

The first year we thought the Peterson boxes might have an advantage, because they were well-weathered while the Gilwood boxes were not. In 1999 the 11 locations attracted nine nesting pairs of bluebirds. Seven pairs nested in the Gilwoods and two nested in the Petersons.

Two locations were discontinued after the first year because farm equipment had hit the nest boxes. In 2000-2001 the results were identical: nine locations attracted five nesting pairs of bluebirds, all nesting in the Gilwoods.

In our three-year study, we had 19 bluebird nestings — 17 in the Gilwoods and two in the Petersons. We also had many Tree Swallow nestings a bit later in the adjacent nest boxes, even with the three-foot spacing. (Information from the 2002 season is similar: nine pairs of boxes, Gilwood chosen over Peterson in eight instances with one pair of boxes empty.)

The Gilwood nest box had no ventilation holes, so we had an interest in possible summer heat problems for the second bluebird nestings.

The summer temperatures of 1999 were not that warm. In 2000, we had two days of 100-degree Fahrenheit with dew points of 70 degrees and no wind. We had baby bluebirds in two Gilwoods, one nest in which the babies were under five days old and one nest with babies over 10 days. We checked these two clutches the first 100-degree day in mid-afternoon; both looked good and did not appear to be heat-stressed, and both broods eventually fledged.

The summer of 2001 was the worst we can remember. We had many days of 90 degrees and dew points in the mid- and upper 70s. The second-nesting clutches of bluebirds in the Gilwoods all fledged without any problems.

In conclusion, the bluebirds really liked the Gilwood nest boxes and so did we. They were easy to build, and with half-inch conduit and rebar pole assembly, they were easy to install.

(This article was published in Bluebird News, newsletter of the Bluebird Recovery Program, Audubon Chapter of Minneapolis. It is used with permission.)

New York

By Kevin L. Berner

Gilwood boxes scored well with Eastern Bluebirds during the 2002 nesting season when compared with Troyer slot boxes and NABS boxes with oval entrance holes. This was the third year of a study comparing bluebird use of these three boxes.

The study was done on long-established trails within Schoharie County in east-central New York. All boxes were paired approximately 5 to 10 feet (1.5 to 3.0 m) apart. Each pair included a NABS oval-holed box with either a Gilwood or Troyer (slot) box.

During each of the three years of this study, Gilwood boxes have had the highest Eastern Bluebird use of the three box types, although the differences between the Gilwood boxes and the NABS oval boxes were less pronounced this year (Table 1).

For the second consecutive year bluebirds nested in Troyer and NABS oval boxes in nearly identical numbers; in the first year of the study, NABS boxes were much more heavily used (Table 2).

Tree Swallows have consistently used more NABS boxes than Gilwood boxes, possibly because bluebirds frequently already occupied the Gilwood boxes before the swallows started nesting. In two out of three years, swallows nested in similar numbers of NABS and Troyer boxes.

While I have never put much effort into trapping House Sparrows, I have removed boxes for many years from sites where sparrows nested. As a result, sparrows have laid eggs in only one box during each of the three years of the study. I also have eliminated boxes from sites used by House Wrens. Consequently, only five wrens have nested in any of these test boxes during this study.

Table 1. Numbers of nesting attempts in NABS oval and Gilwood nest boxes in 2002 with three year totals in parenthesis.

Box style	No. of boxes	No. of nesting attempts*			
		Bluebirds	Swallows	Wrens	Sparrows
NABS oval	17 (58)	11 (22)	8 (37)	0 (0)	0 (1)
Gilwood	17 (58)	15 (62)	4 (17)	0 (1)	1 (1)

* A nesting attempt is defined as a pair building a nest and laying at least one egg.

Table 2. Numbers of nesting attempts in NABS oval and Troyer nest boxes in 2002 with three year totals in parenthesis.

Box style	No. of boxes	No. of nesting attempts*			
		Bluebirds	Swallows	Wrens	Sparrows
NABS oval	17 (58)	14 (43)	8 (34)	0 (1)	0 (1)
Troyer	17 (58)	13 (32)	7 (25)	0 (3)	0 (0)

Van Ert boxes

I conducted very limited tests with four boxes designed, built, and donated by Floyd Van Ert of Carson, Iowa. These boxes are flat-roofed, relatively small inside, and have a slot entrance. The floor size is four inches square (10.2 cm x 10.2 cm), the hole-to-floor depth five inches (12.7 cm). The slot was 1 and 3/4 inches (4.4 cm) tall. However, the slot was constricted by a heavy wire so that the opening birds would pass through was 1 and 1/4 inches (3.2 cm) tall and 2 and 3/4 inches (7.0 cm) wide.

This design gives the appearance of a large hole, which I have found that

bluebirds prefer, while still potentially excluding large birds such as European Starlings.

Two of my Van Ert boxes were paired with Gilwood boxes, the other two with Troyer boxes. In the Gilwood pairing, three bluebird pairs nested in the Gilwood boxes, none in the Van Ert boxes. In those pairs, swallows nested in one Van Ert box.

The two pairs with Van Ert and Troyer boxes were unused by bluebirds, but two swallow nests were found in the Van Ert boxes.

No starlings nested in any of the boxes included in this research, and no evidence of predation by starlings was noted.

Bluebirds faced significant challenges from the weather due to extended periods with nights below freezing throughout April and May and usually high amounts of rainfall. Six inches of snow on May 18 further added to the bluebirds' problems. After low nest-success levels early in the spring, most bluebirds re-nested and success rates were at more typical levels during the summer.

(Mr. Berner is NABS research chairman and associate professor in the department of Fisheries and Wildlife Technology at the State University of New York at Cobleskill.)



Van Ert-style nest box, Note the wire that restricts the size of the entry slot.

Western Bluebirds: Life history, population growth, and conservation

By Amber Keyser, Research Coordinator, Prescott Bluebird Recovery Project

Growth of bird populations depends on two things: the number of offspring produced per adult during the breeding season and survival of individuals from one year to the next.

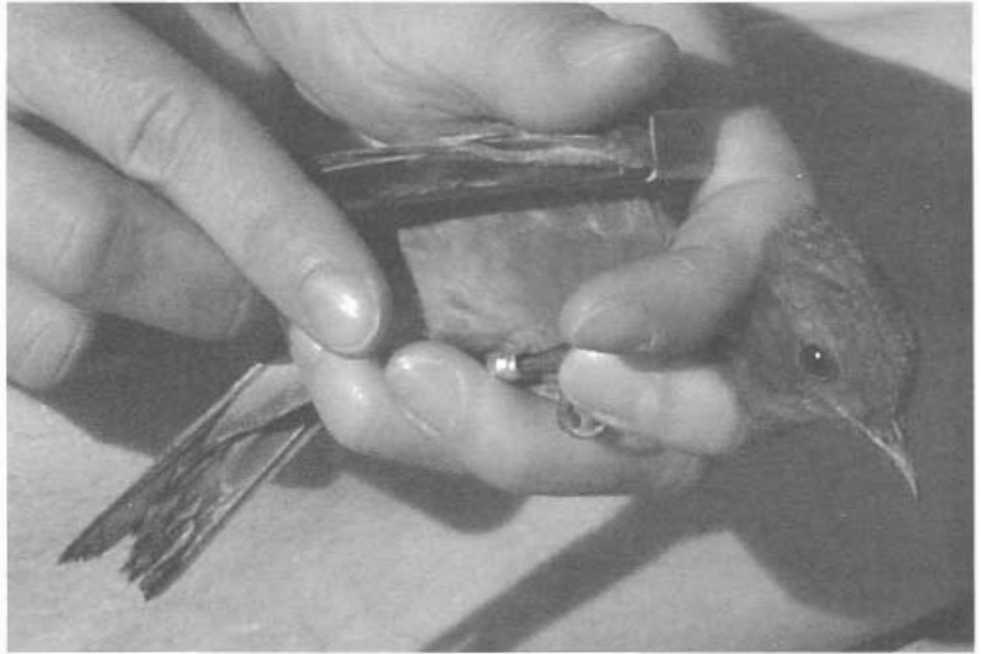
Compare Pacific salmon, which reproduce only once but have many offspring, with whales, which mature slowly and only have one offspring per breeding attempt but reproduce over many years. The unique combination of survival and fecundity patterns that characterize each species is called a life history.

Bluebird life history traits fall between salmon and whales. Bluebirds are reproductively mature after one year, have multiple offspring per season, and breed repeatedly.

The Prescott Bluebird Recovery Project is dedicated to Western Bluebird conservation in northwestern Oregon. Using data collected over the past seven years by a dedicated cadre of volunteers, Dr. Daniel Promislow, Marilynne Keyser, and I described the life history of our population in detail. Our goal was to use the information on survival and fecundity to predict future population growth and to assess the effectiveness of our conservation efforts.

An accurate estimate of survival rates requires banding and recapture of individual birds over multiple years. We used individual capture histories from 7,752 birds and documented the following patterns.

Fledglings (both sexes combined) have a 26 percent chance of surviving to breed in the following year. Adult birds had higher survival rates. One-



Banding is how birds are tracked during the research. Photo by Marilynne Keyser.

year-old females had a 47 percent chance of surviving to age two, two-year-old females had a 52 percent chance of surviving to age three, and three-year-old females had a 37 percent chance of surviving to age four. For males, the survival rates for the same age classes were 59 percent, 76 percent, and 54 percent.

In our population, the majority of females did not survive beyond year four. Males had higher survival rates, and consequently lived longer (up to six years of age). The annual survival rate for these older males was approximately 54 percent.

Annual fecundity is the total number of nestlings fledged over all breeding attempts during a single season. From 1,228 nesting attempts, we calculated annual fecundity for females and males of different ages (Table 1). The average number of

nestlings fledged per year was 5.0.

The number of nestlings fledged per year increased with the age of the parent birds because older birds tended to have two successful clutches per year, while younger birds typically had only one.

We used the survival and fecundity rates to calculate population growth rate. When the population growth rate is 1, the population is stable, the number of birds neither increasing nor decreasing. Values greater than 1 indicate a growing population, and values less than 1 indicate a declining population.

Over the last seven years, our population of Western Bluebirds has been growing at a rate of 1.08. This means that, on average, each adult female replaced herself with 1.08 new females every year, good news for Western Bluebird conservation efforts.

However, it is important to note that changing conditions can affect the population growth rate. Our analyses show that population growth is most strongly influenced by nestling over-winter survival rate (hatching year to first breeding year). A few bad years in a row could reverse the positive trends seen in current data.

Additionally, there are limits to population growth. In our study, the primary limiting factors appear to be the availability of suitable habitat and the ability of birds to find that habitat.

As the population grows, young adult bluebirds entering the breeding population need appropriate foraging habitat and nesting sites. We wanted to know how birds transition from hatch site to breeding site. We studied the way that fledglings disperse by measuring the distance between the natal box and the box in which the bird bred as a year-one bird.

We found that females dispersed five miles (8km) on average while

males went 1.5 miles (2.4km). Thus, bluebirds follow a pattern common in songbirds in which males tend to stay near the natal area while females are the primary dispersers.

In the last decade, suburban development has encroached upon rural and agricultural land that can be considered appropriate habitat for Western Bluebirds. As a result, the habitat has become fragmented. Thus,

Age in years	Female fecundity	Male fecundity
1	4.7	4.9
2	5.2	5.0
3	6.7	5.1
4	6.6	5.5
5	--	7.3
6	--	8.5

Average number of offspring fledged during the breeding season for females and males of each age class.

nest boxes in our study area are distributed discontinuously. This fragmentation means that many young birds may never encounter nest boxes once they leave their natal site, and perhaps rarely encounter other bluebirds as they disperse.

Clearly, this is an important area for future conservation work. We can use our knowledge of bluebird dispersal patterns to try to connect areas where nest boxes are located in appropriate habitat.

From our research, we have been able to conclude that our conservation efforts on behalf of Western Bluebirds appear to be paying off. The population of this species is increasing, and we now know that the next challenge is making sure all those young bluebirds can find suitable territories and mates of their own.

(The research reported here was funded by the Oregon Wildlife Heritage Foundation.)

(Ms. Keyser is research coordinator for the Prescott Bluebird Recovery Project (PBRP). The information is used with permission. PBRP can be contacted at P.O. Box 1469, Sherwood, OR 97140. The author can be reached at 5838 SW Vermont St., Portland, OR 97219, e-mail keyser@arches.uga.edu.)



This trap captures birds for banding. Photo by Marilynne Keyser.



Christmas Bird Count data: House Sparrow, European Starlings are in general decline

A recent examination of Christmas Bird Count (CBC) data offers interesting information on two exotic species that pose problems for bluebirds and bluebirders — the House Sparrow and the European Starling. Both species appear to be in decline in North America.

The information was published by the National Audubon Society in its summary of the 102nd annual CBC, counts taken during December 2000 and January 2001. It is contained in an article in the magazine *American Birds* discussing use of CBC data to monitor populations of exotic (introduced) species; the author is Bill Pranty, an ornithologist from Florida.

House Sparrow *(Passer domesticus)*

Another one of the most successful exotics in North America, this Old World species colonized the continent from 100 individuals released at New York City in 1851-1852. By the early 1940s, the population was estimated at 150 million birds.

CBC data show a very gradual decline over the past 40 years, with numbers during the 1990s less than half of those during the 1960s. Researcher and author William Kricher (in 1983) noted that House Sparrow populations in the northeastern United States decreased as House Finch populations increased. However, House Sparrow numbers also declined (though less severely) in the southeastern United States, where House Finches had not yet colonized.

Researchers and authors P. E. Lowther and C. L. Clink (in 1992) attributed the sparrow's decrease primarily to the decline of horse transportation, and, since the 1960s, to an increase in large farms and

monoculture crop production.

European Starling *(Sturnus vulgaris)*

This species probably is the most successful, widespread, and abundant exotic bird in North America. Starlings colonized the continent from 100 birds released at New York City in 1890-1891. Within a century, their population was estimated at 200 million individuals, and breeding populations were distributed essentially continuously from Alaska and Newfoundland south to Baja California and Florida.

CBC data show great variation in annual numbers (probably dependent upon whether large winter roosts are inside or outside CBC count circles), but numbers of birds observed per

party-hour suggest a population decrease exceeding 66 percent in the past 30 years.

(Editor's note: The experience of some NABS members might bring these conclusions to question. It is interesting to note in that regard that over half of NABS members, in the recent member survey, indicated that they live in rural areas. It is in such areas, particularly where farming and ranching are conducted, that one is most likely to find both of these nuisance species, House Sparrows and European Starlings.)

(This material is used with permission of the author, Bill Pranty, and the editor of American Birds, Geoffery LeBaron.)

About the CBC

Christmas Bird Counts are held annually throughout North America. The CBC is one of the oldest — 102 years — continuing citizen-science bird projects. It is sponsored by and conducted under the guidance of the National Audubon Society. Participants spend one day in the field or watching their yard on a designated date between Dec. 14 and Jan. 5. Species of birds seen or heard as well as the number of individuals of each species are counted. The territory in which a count is made is pre-determined, and it is maintained year to year. Data gathered thus can be compared year to year. Results of each count are compiled and published in the magazine *American Birds*. Information on local counts is available from your nearest Audubon chapter or state office. You also can write Audubon Science Center, 545 Almhouse Road, Ivyland, PA 18974.

Bluebird nest boxes: *Round or oval entrance holes?*

By Warren Close

One of the most successful boxes in producing bluebirds in Wisconsin is the Peterson box. One of the most unusual features of this box is the oval hole. Although it has been shown that the oval hole is more attractive to bluebirds in this box, oval holes are not used in any other standard bluebird boxes.

The trouble with the Peterson box is that it is somewhat complex and

expensive to build. I decided to see if oval holes are preferred in a simpler box. I wanted an untried box design, one that had never been seen by bluebirds before; I wanted to rule out the possibility of imprinting on a familiar box.

I called my box the Fox box. (I am indebted to the Fox Lake Conservation Club for providing the basic box. I modified that box to meet my specifications.) It had the same interior

volume as the Peterson box (135 cubic inches), the same forward-slanting roof (63 degrees), but the body was rectangular with a four-inch-square floor. The boxes were constructed with nominal one-inch lumber.

I selected 10 sites at the Bong State Recreational Area in the spring of 2001. One Fox box with an oval hole was paired with one Fox box with a round hole (five feet apart) at each site.

Bong is Tree Swallow country, and Eastern Bluebirds are not common in this 5,000-acre park. (For example, in 2000, 294 Tree Swallows were fledged (from boxes there), compared with 26 Eastern Bluebirds.) Nevertheless, bluebirds nested at four of the 10 study sites, all using the oval-hole boxes. In the six remaining sites, Tree Swallows nested in four boxes with round holes and two with oval holes (first nest built).

The results of this limited experiment suggest that we should try oval holes in our Eastern Bluebird boxes.

(This article first appeared in the newsletter of the Bluebird Restoration Association of Wisconsin. It is used with permission.)

Photos, drawings needed

Photos or drawings of official state and provincial flowers and birds are sought for use on a web site devoted to the Transcontinental Bluebird Trail. NABS affiliate logos also are needed. They should be sent to Jim McLochlin, 9521 Burdette Circle, Omaha, Nebraska 68134, e-mail at bluebirdbox@cox.net. Mr. McLochlin maintains the site.



Eastern Bluebirds, like this one with food in its bill, were found in a Wisconsin study to prefer oval entrance holes to round entrance holes. Photo by Wendell Long.

NABS member survey

We're mature rural vets of sparrow wars

Bluebirders are, generally speaking, mature rural veterans of sparrow wars who use home-made unpainted NABS-style nest boxes with 1.5-inch round entrance holes.

That snapshot view of ourselves is based on responses to the NABS survey you found in your Summer 2002 issue of *Bluebird*.

Before we go into detail, we want to thank the hundreds of you who took the time to complete and return the survey. We appreciate your effort.

Here are the questions we asked and the answers you gave. Percentages are based on tally of nearly 800 surveys.

We wanted to know how long you have been interested in bluebirds. Five percent of us are new to the game. A third of us began at most three years ago. Nearly six in 10 of us have been at this for over 10 years.

That would be expected when you see how old we are! Most of us are between 50 and 79 years of age. Three-quarters of the survey respondents and others in their households interested in bluebirds fall within that range. Only nine percent of the respondents are below the age of 40, and we had responses from seven members who have celebrated at least their 80th birthday.

The largest portion of us — 44 percent — maintain from one to 10 nest boxes. Nineteen percent have from 10 to 20 boxes, 27 percent from 20 to 100, and eight percent of us keep very busy with more than 100 boxes. Two percent of survey respondents have no boxes at all, appreciating bluebirds in other ways.

Two-thirds of us build nest boxes for ourselves and others. The NABS-

style box is favored by the same margin, two-thirds, whether we build or buy. Almost 40 percent of us use Peterson boxes. The Troyer slotbox is used by 13 percent, Gilwood by 5 percent, Gilbertson PVC by 9 percent, gourds by 4 percent, tree-branch boxes by 5 percent, and other styles by 14 percent. The mathematicians among you have determined that the numbers add up to more than 100 percent. Multiple responses were allowed, and some of us obviously use more than one box style.

Do we paint or apply preservative to those boxes? Two-thirds of us do not.

Now to that ever-popular subject — the entrance hole! We should mention first what species of bluebird is the object of our affection, since hole size can vary with species. Eighty-three percent of the members returning the survey are working with Eastern Bluebirds, and six percent each with Mountain and Western bluebirds.

Given that, a 1.5-inch round hole can be found on boxes maintained by 76 percent of the respondents. The Peterson oval hole is found on 27 percent of these boxes, a 1-9/16 hole on 12 percent, and slot entrances on 15 percent. Once again, we exceed 100 percent, some of us using more than one type of hole.

Ninety-two percent of us have interest in bird species other than

those using nest boxes. Almost as many welcome cavity-nesters other than bluebirds to their nest boxes. And 94 percent of us feed birds.

Just over half of us live in areas described as rural. Twenty-two percent of us live in the city, defined as a community with more than 20,000 people. Nineteen percent of us live in towns (2,000 to 20,000 persons), and seven percent in villages (communities with fewer than 2,000 residents).

The biggest single problem we face in our efforts to help bluebirds is competition from wrens and House Sparrows, according to survey results. Sixty-two percent of us ranked that the number-one concern. Yellowjackets and wasps are a problem for 11 percent of us. No other particular problem (vandalism, blow flies and other insects, mammal predators, snakes, and miscellaneous problems) scored above eight percent.

Eighty-six percent of us own binoculars, half of those purchased within the last 10 years. Fewer than a third of us own spotting scopes. Three of 10 of us take birding vacations.

We asked if you belonged to a state bluebird organization. Twenty-six percent of us do. Twenty-nine percent of us belong to the National Audubon Society, six percent of us to the American Birding Association.

We read a variety of other magazines about birds, no particular publication interesting more than 20 percent of our respondents.

The last question was about use of the Internet and e-mail to get information about birds. We are almost evenly split in that pursuit, 56 percent of us online.

44 percent of us maintain from one to 10 nest boxes



A nest box for this Tufted Titmouse is one thing. Habitat that supports its other needs is something else.

Conservation of cavity-nesting birds

By Alicia Craig

According to Breeding Bird Survey data collected and analyzed by the U.S. Geological Survey, some North American cavity-nesting species are showing population declines. Over the past 40 years the numbers of Prothonotary Warblers, a southeastern bird, have declined 30 percent. The Mountain Chickadee, which breeds in coniferous and mixed woodlands in western mountain regions, has declined 25 percent over the last 40 years. The Brown-headed Nuthatch, dependent on mature forests of the Southeast, has declined 45 percent in the last 40 years.

Even though these birds are not long-distance migrants facing the hazards of those journeys, they still face obstacles. These species must deal with the emergence of new houses and buildings, with the loss of trees and habitats, with house cats left to wander, and they must battle communication wires and windows. And natural cavities for nesting can

be in short supply.

Birds need to find suitable habitats in which to raise their young. These habitats must provide adequate food sources, water, and enough space to ensure that their young have a fighting chance to survive. While some birds easily adapt to man-made nest boxes and situations, many habitats require conservation measures to ensure they meet the birds requirements.

It does no good to set up nest boxes for woodpeckers or titmice, for instance, if the surrounding land does not contain enough trees to support the birds. Trees are both food sources — insects, nuts and seeds — and potential nesting sites. Trees also provide shelter from predators and weather. If all the dead or dying trees are removed, the potential for cavity-nesting species will be greatly reduced.

Bluebird populations experienced drastic population declines in the early part of the 20th century because

of the loss of nesting sites in field and orchard habitats and competition with non-native species such as House Sparrows and European Starlings. Concerned citizens were instrumental in the comeback of bluebirds during the 1950s and 1960s. People put up nest boxes and helped conserve and protect the habitat bluebirds need. Thanks in part to these efforts, bluebird numbers substantially rebounded.

Conservation of all critical habitat is necessary to provide an overall healthy environment for all wildlife. As we create bluebird trails and habitats, we need to remember the importance of all habitats for all species of birds.

(Alicia Craig, a NABS board member, is senior manager of nature education for Wild Birds Unlimited, Inc. She can be reached at 11711 N. College Ave. No. 146, Carmel, IN 46032, 317/571-7100 ext. 121, e-mail craiga@wbu.com.)

Of auklets and nest boxes

The realities of ecological restoration

By William J. Sydeman, PhD

What restoration techniques can be used to facilitate the population growth and recovery of cavity-nesting seabirds?

This was one of the fundamental questions asked after calculations of seabird mortality from the 1986 Apex Houston oil spill off central California revealed that an estimated 1,600 Rhinoceros Auklets had been killed or debilitated. We surmised that some, possibly many, of these birds originated from the incipient breeding colony at Ano Nuevo Island (ANI) along the San Mateo coastline of central California.

Based on experience, one technique was to augment the birds' breeding habitat and facilitate their population growth by creating more high-quality nest sites — placing nest boxes in the ground to serve as burrows.

However, we didn't know how long it would take for breeding birds to find and occupy the new nest sites, or how well these birds would reproduce in artificial habitat. To assess the efficacy of habitat augmentation as a restoration technique for cavity-nesting seabirds, we needed to measure the rate of nest box occupancy and reproductive success year by year.

Our restoration project began in 1993, when we installed 40 nest boxes on ANI; 16 additional boxes were deployed in 1994. In the first year, 30 percent (12 of 40 boxes) were occupied, but only four of these pairs were successful in rearing offspring.

The occupancy rate increased in 1994 to 38 percent, and again in 1995 to about 60 percent. In the last five



The Rhinoceros Auklet, a relative of puffins, is a chunky dark seabird about 15 inches long. The horn on its bill and the two plumes on its head are characteristic of breeding plumage. This species feeds on fish and crustaceans caught while swimming underwater. It breeds in colonies, mostly on islands. It summers in Alaska, winters off the coasts of Oregon and California, although the two ranges overlap a good deal.

years, occupancy seems to have leveled off, varying between 50 percent and 60 percent.

Productivity of pairs breeding in nest boxes increased from about 30 percent in the first year to almost 70 percent success in the seventh year of the program.

Notably, when we compared the productivity of birds nesting in boxes against those breeding in natural burrows, there was convergence in reproductive performance; starting in 1998, productivity of birds in burrows and boxes was similar; it was exactly the same in 2000.

The population size of Rhinoceros Auklets on ANI has doubled during the course of this eight-year project, from about 50 to 100 pairs of breeding birds.

One of the main lessons we have

learned is that ecological restoration is a lengthy process. While we were surprised that some of the boxes were occupied in the initial year of deployment, it took at least three years for the use of boxes to stabilize, and six to eight years for the productivity of pairs in boxes to mirror what was happening in natural burrows.

Undoubtedly, young birds were recruited into the boxes, thereby resulting in poor to moderate productivity for the initial years of occupation.

Importantly, we have established that habitat augmentation can be an effective tool for reversing the population declines of cavity-nesting seabirds, and that this technique can be used elsewhere, if needed, with confidence.

With nest boxes in place, the ANI

Rhinoceros Auklet population increased at a rate considerably faster than what would have been probable under a natural recovery scenario.

(Dr. Sydeman is director of the Point Reyes Bird Observatory Marine Sciences Program. Staff biologists Michelle Hester and Julie Thayer are co-authors of the scientific report from which this article is drawn. The article is used with permission. For information about membership in PRBO, write the observatory at 4990 Shoreline Highway, Stinson Beach, CA 94970.)

List of cavity-nesting species being compiled

A complete world list of cavity-nesting birds is being compiled on the web site of CAVNET. You can view the list at the CAVNET web site (<http://bio.fsu.edu/~jameslab>).

Areas still needing attention include Asia (excluding SE Asia), North America from Mexico to Panama, and South America (excluding Argentina).

CAVNET is an e-mail listserv for persons interested in cavity-nesting bird species. It is operated by Eric L. Walters of the Department of Biological Science at Florida State University in Tallahassee.



Drink
shade-grown
coffee.
It's good
for the birds.

Pesticide use can be harmful to birds feeding on insects

By Dodie Wilson

Mr. C. only meant to kill the crane fly larvae that were destroying his lawn at his home near Brookings, Oregon. His weapon of choice came highly recommended from the county farm advisor. He sprayed his lawn with the common pesticide called diazinon.

Diazinon caused the larvae to come to the surface, and the dead and dying larvae were actively fed upon by several species of birds: Western Bluebirds, robins, Varied Thrushes, flickers, and starlings. Several days later, he found a dead bluebird; he picked up another that could not fly. He released it, later finding it had disappeared. He hoped for the best. His neighbor also found a dead bluebird around the same time. His lawns too were commercially treated with diazinon to control a crane fly population.

Diazinon, one of the most widely used organophosphate pesticides in the U. S., is commonly used on residential lawns, turf, and gardens, indoors for crack and crevice treatment, and on agricultural crops; it is registered for use on 64 different food crops. Because of its widespread use, it is one of the most commonly found pesticides in rivers and streams in urban areas. It is also found in air, rain, fog, and drinking water.

Unfortunately, diazinon doesn't just target harmful insects; it targets all insects, good and bad. It also is toxic to birds and other wildlife and even to humans who use it improperly. The application of diazinon to lawns is one of the uses most toxic to birds. Just one granule of or seed treated with diazinon is enough to kill a small bird.

Between 1994 and 1998, the EPA found that diazinon accounted for more incidents of bird kills than any other pesticide. The majority of these kills came from residential use. Because of this and the tough new safety standards established by the 1996 Food Quality Protection Act, EPA is conducting a review of diazinon through a public participation process.

So far, through this review, EPA has determined that diazinon poses risks to humans, birds, and other forms of wildlife. Consequently, EPA is planning to phase out/eliminate certain uses of diazinon including residential and indoor uses. Its use on some agricultural crops will also be eliminated. It is believed that by phasing out the non-agricultural outdoor uses urban river and stream quality will significantly improve and the risk to birds and aquatic life will be reduced.

For more information on diazinon, go to the EPA website at www.epa.gov/pesticides/op/diazinon/questions.pdf.

(Ms. Wilson can be reached at 39037 White Fir Lane, Corvallis, OR 97330.)

Correction

In a review of the book *The Bluebird Monitor's Guide*, in the Summer 02 issue of *Bluebird*, the name of co-author Keith Krüdler was misspelled. We regret the error.

Navratil web address

The web site of bluebirdex Frank Navratil has a new address: <http://home.att.net/~frnbluebird>. He can be reached by e-mail at fmavrat@att.net.

Penticton: Reflections on NABS convention

By Lisa A. Bulick

Attending my first North American Bluebird Society convention in mid-June was a remarkable experience. It was my first trip to the Pacific Northwest, and also my first opportunity to meet many of the amazing people who make up the North American Bluebird Society: members representing four Canadian provinces and 27 U.S. states, gathering to share their passion for bluebirds.

The 25th Annual NABS Convention Society was held in beautiful Penticton, British Columbia, at the Penticton Lakeside Resort, hosted by the Southern Interior Bluebird Trail Society (SIBTS). The facilities and hospitality at the resort were absolutely perfect.

During the convention, artists, conservation organizations, and vendors set up tables in a spacious area outside the presentation rooms so attendees could browse between events.

The SIBTS organized a variety of exciting tours, offering a perspective on the diverse habitats of the Southern Okanagan region, and, although I didn't catch a glimpse of Ogo Pogo, Lake Okanagan's version of the Loch Ness Monster, I did get to see my first Western and Mountain Bluebirds! Having only seen the Eastern Bluebird, meeting both its cousins in the same day made my trip even more extraordinary.

A variety of presentations was offered Saturday. Conference attendees could watch a video on the Ghost Bears of Princess Royal Island, hear a talk on raptor rehabilitation by Sherri Klein, learn about the geology and environment of British Columbia from the knowledgeable Dick Cannings, or be introduced to the Wild Bird Trust of British Columbia

by Wayne Campbell.

The conference finale was the banquet and awards ceremony (see awards article). The focus of the evening was a film and presentation by keynote speakers, Canadian wolf experts John and Mary Theberges.

This memorable conference was the result of the hard work of its organizers, especially Sherry Linn, Greg and Terry Tellier, as well as a

host of dedicated volunteers, each of whom helped make the conference such a success.

I hope to return again to this rich regional landscape, but not before I travel to the 2003 NABS Convention in Kearney, Nebraska, this coming March with binoculars and camera in hand, to enjoy the arrival of Sandhill Cranes. See you there!



Bluebird conservation award winners for 2002 included, from the left, Rod Spencer on Montana, Sherry Linn of British Columbia, Ray Harris of Alberta, Howard Rathlesberger of California, Denise Aipperspach of Montana, and Tom Maska of Montana. Not pictured is Sandy Bivens of Tennessee. A group award was presented to the Prescott (Oregon) Bluebird Recovery Program. Ms. Aipperspach received the Montana Bluebird Trails, Inc., Achievement Award. The others were given NABS Conservation Awards for outstanding work in bluebird conservation.

NABS 2002 award recipients

A look at the 2002 NABS award recipients:

Group Award: Since 1974, the Prescott Bluebird Recovery Project has helped reintroduce the Western Bluebird to the Northern Willamette Valley in Oregon. Working currently with over 100 volunteers, it has an extensive monitoring program incorporating a computerized data program to collect and analyze information on nesting and banding.

Howard Rathlesberger of Woodside, California, serves as coordinator for San Mateo County in the California Bluebird Recovery Program. He also builds and designs nest boxes, bands, trains volunteers, and conducts seminars. In his eighties, Howard still finds time to oversee nest box monitoring at Filoli, a public heritage park.

Tom Maska and Roderick Spencer of Great Falls, Montana, are

founding members of Mountain Bluebird Trails of Montana, active Bluebirders for over 30 years. They have been instrumental in the fledging and banding of well over 10,000 bluebirds, and continue going strong in their 80s.

Sandy Bivens of Nashville, Tennessee, is director of the Warner Parks Nature Center, and has been a dedicated worker there for 25 years. While overseeing 200 to 300 nature programs a year and being active in local and state conservation organizations, she monitors and bands on the Amelia Laskey Bluebird Trail at the Nature Center, the oldest continually monitored trail in Tennessee.

Sherry Linn of Osoyoos, British Columbia, currently serves as president of the Southern Interior Bluebird Society (SIBTS) and is active in four other conservation organizations in southern British Columbia. She has been active in promoting bluebird conservation to adults at local nature centers and to children in classrooms. She serves as editor of the SIBTS newsletter and monitors at four nest box trails in her area.

Congratulations, Sherry, and thanks, everyone!

As co-chairs of the event we would like to congratulate our president, Sherry Linn, for the NABS award she received and for her facilitation of the convention. We also thank each and every person who attended or volunteered for joining with us to celebrate "The Blue Turning Silver." We look forward to seeing everyone in Kearney, Nebraska, next year!

— Terry and Greg Tellier,
co-chairs NABS 2002
convention

Award nominations needed by Feb. 1

The North American Bluebird Society annually makes awards for outstanding contributions to bluebird conservation. Awards will be presented at the NABS convention in March; nominations must be received no later than Feb. 1, 2003.

If you wish to nominate an individual, a group, or someone involved in research for an award, please contact NABS board member David Cook at 664 S. 14th St., San Jose, CA 95112, e-mail justdave50@earthlink.net, or by telephone at 408/275-1492. Include your telephone number or e-mail address, please.

For individual awards, consider the ways in which nominee has publicized or aided bluebird/cavity-nester conservation. Examples might include speaking before groups; working with young people; obtaining publicity in newspapers, radio, or television; working at nature centers, workshops, or fairs; inventing or improving trap or box designs; designing and producing publications; plantings, etc.

For nomination of a group, consider workshops offered, number of boxes maintained by group members, increase in bluebird production, methods of recruiting monitors, successful fledglings, etc. Programs must have been in place for a minimum of five years.

For research awards, briefly summarize research completed (and in progress) involving bluebirds/cavity nesters, and include bibliographic citations of articles published about bluebirds or other North American cavity nesters (copies of articles or abstracts are desirable).

Board nominations needed by Sept. 30

NABS is seeking nominations for officers and directors to be elected at the 2003 annual convention. Resumes for nominees should be received by Sept. 30. Send information to:

NABS Nominating Committee
P O Box 244
Wilmot, OH 44689-0244

Questions can be answered by Ervin Davis, committee chair; call 406/644-2740 or write 604 N. Main, Charlo, MT 59824.

Positions open are:

- President (one-year term, limit three terms).
- Vice President for Affiliates (one-year term, no limit).
- Four directors (three-year term, limit one term).

The slate of candidates will be elected at the Kearney, Nebraska, convention March 20-23, 2003.

All NABS members are eligible for nomination. You are welcome to nominate yourself or to encourage someone you know to be a nominee. The enthusiasm, dedication and knowledge gained while working with bluebirds will provide valuable support to the board.

Here are some guidelines for recruiting board members. Areas of experience are not requirements, but are welcome as helpful to specific board operations.

Expectations: Attend orientation March 20, 2003; attend minimum of four of six meetings during three-year term; accept a committee and/or project task.

Experience: Service on another board; birding industry; communications/media background; education; financial planning; fund raising; law; science (methodology/statistics).

NABS has a reimbursement policy to assist with travel expenses.

Bluebird News from Shore to Shore

A painting entitled "Nest-box Bluebirds," by Nebraska artist **Rodney Johns** was chosen to appear on the 2002 Nebraska Habitat Stamp. The birds shown are Mountain Bluebirds. Mr. Johns is a life member of **Bluebirds Across Nebraska**.

Gretchen Christjaener, an 83-year-old resident of Garland, Nebraska, told her neighbor, **Paula Petersen**, that she would like to see bluebirds in her yard. Ms. Peterson, a member of **Bluebirds Across Nebraska (BAN)**, came to her neighbor's yard and installed two PVC nest boxes. Be patient, she said, it could be a year or two before the birds found the boxes. As Ms. Petersen was driving away, she turned to see a bluebird on one of the boxes. She went back to the house to share the news with Ms. Christjaener, who looked at her first bluebird in many years with tears in her eyes. That story comes from the BAN newsletter.

Purple Martins readily and almost exclusively nest in man-made cavities, usually colonial nesting boxes. Near downtown Sacramento, California, martins have been nesting in much larger man-made structures hardly intended for that purpose. The birds are using highway overpass bridges, flying straight up into drainage weep holes in the bottom of the box that forms the concrete bridges. Martins were found nesting in similar structures in five coastal California locations. The findings were reported in a recent edition of *The Purple Martin Update*, Vol. 11, No. 1, published by the **Purple Martin Conservation Association**.

A college-level home-study course in bird biology is offered by the

Cornell Lab of Ornithology. This is a new edition of the course first offered 30 years ago that has graduated over 10,000 students. Information on the for-fee course is available by calling Terry Mingle at 607/254-2452 or by e-mail at hstudy@cornell.edu.

The **Virginia Bluebird Society** reported a nest-box success ratio (percent of eggs fledged) of 77 percent for 2001. Reports were received for 2,500 boxes. Over 8,600 Eastern Bluebirds were fledged from 2,223 nesting attempts. The success ratio for Carolina Chickadees was 72 percent (759 birds fledged; 150 nesting attempts), for Tree Swallows,



And you thought you had problems with European Starlings! This photo was one of a set making the rounds recently on the Internet. Bird lovers (or starling haters, as the case might be) were sharing a story about the owner of a Maryland car wash who was trying to figure out who was stealing money from the mechanism that received coins from customers. A camera was set to catch the thief in action. Here is his (or her) photo. The bird would probe deep into the coin cup and emerge with quarters. It took hundreds of dollars in change. No explanation was offered for the bird's behavior.

83 percent (1,574 birds fledged; 252 nesting attempts), for House Wrens, 66 percent (618 birds fledged; 162 nesting attempts), and 77 percent success for other species.

In Montana, the **Mountain Bluebird Trails (MBT)** organization has donated books and videos about bluebird conservation to 11 small-town libraries. The effort is reported as well-received in all instances in an article in the group's newsletter *Bluebird Tales*. MBT area coordinators are being asked to nominate other small communities as recipients of books and videos in 2003. Contributions will be made to six more communities. A donation of \$60 covers the cost of one set of books and videos.

A story about a Red-tailed Hawk pulling doors off bluebird nest boxes to capture nestlings has been making the rounds of state newsletters, and is worth repeating here. It first appeared in the newsletter of the **Southern Interior Bluebird Trail Society** in British Columbia. **Harry Purney**, a box monitor, learned of a hawk attacking boxes and ripping the doors off. He investigated, and was able to watch the large bird catch its talons in the slot opening of the box and yank backwards to remove the doors. The bird then ate the young birds found in the nest. Twenty boxes were attacked in that manner. Mr. Purney had no estimate of the number of young birds eaten.

Cold spring weather was hard on birds of all species in the midwest this year. Bluebirds, early arrivals, took a big hit. The *Bluebird News*, newsletter of the **Bluebird Recovery Program** of the Audubon Chapter of Minneapolis, reported frozen eggs

and young birds dying of hypothermia as late as the third week of May. Nighttime temperatures in Minnesota were dropping below freezing past the middle of that month. Heavy rains during May did not help.

The Minneapolis group is actively working with golf-course managers to create good bluebird habitat. One course superintendent, **Mike Brower** of the Minnesota Valley Golf Club, wrote about his experiences for an industry journal. He said, "All current nest boxes have been properly maintained for this golf season. They include four duck nest (boxes) in the pond, seven Wood Duck boxes in trees, two Kestrel boxes, two bat houses, and 32 bluebird nest boxes. A weekly monitoring of the Valley Bluebird Trail (is carried out) by staff member **Sonny McGowen**.

"We recently purchased 100 bare-root berry-producing shrubs from the Minnesota Bluebird Recovery network, and have planted them within the natural fescue no-mow areas of the golf course. These plants will produce food and cover for songbirds and wildlife for years to come. We will continue to manage and improve all of the naturalized areas to better serve songbirds and other golf-course-friendly wildlife," he wrote.

Sheldon Anderson, 92, of Orangeville, Ontario, is known as Canada's oldest bluebirder. His story was told in a recent issue of the **Ellis Bird Farm** newsletter. Mr. Anderson manages a trail of 140 paired nest boxes near his home. In spite of a



If you look closely at this photo you will see two Eastern Bluebirds sharing a nest with five young Black-capped Chickadees. The female bluebird abandoned her nest after laying two eggs. The female chickadee claimed the nest and the eggs, laid five eggs of her own, and raised the combined family. The birds used a nest box belonging to Charles Musser of Bainbridge, Pennsylvania. The photo was sent to us by Kathy Clark of the Bluebird Society of Pennsylvania.

life-long interest in birds he did not become active with bluebirds until he was 80 years old. It is never too late to get to know bluebirds!

Bob Walshaw of Coweta, Oklahoma, has been nominated for two awards because of his work with bluebirds. He was named by the American Red Cross for an Everyday Hero Community Volunteer award and by BlueCross BlueShield of Oklahoma as a 2002 Ageless Hero for Community Involvement. Congratulations, Bob.

The **New York State Bluebird Society** will host the annual North American Bluebird Society Convention in 2004. It will be held at Ithaca, New York, home of Cornell University, July 7 to 11.

Affiliate web sites

Many of NABS affiliate clubs have websites rich in information, helpful hints, beautiful bluebird photos, and ideas that may interest you. From time to time, we will list addresses. Give them a look. For inclusion in the list in the future, please e-mail your web-site information to Joan Harmet at joandick@aeroinc.net.

Wisconsin: www.BRAW.org

Texas: www.texasbluebirdsociety.org



Editor has new address; Oct. 25 next deadline

The deadline for the Winter 2003 issue of *Bluebird* is Oct. 25. Earlier submissions always are appreciated. The editor prefers to receive material by e-mail (no attachments, please) at two-jays@worldnet.att.net. Postal address is Jim Williams, 345 Ferndale Road N, Wayzata, MN 55391. Include a self-addressed stamped envelope if you wish return of manuscripts or photographs.

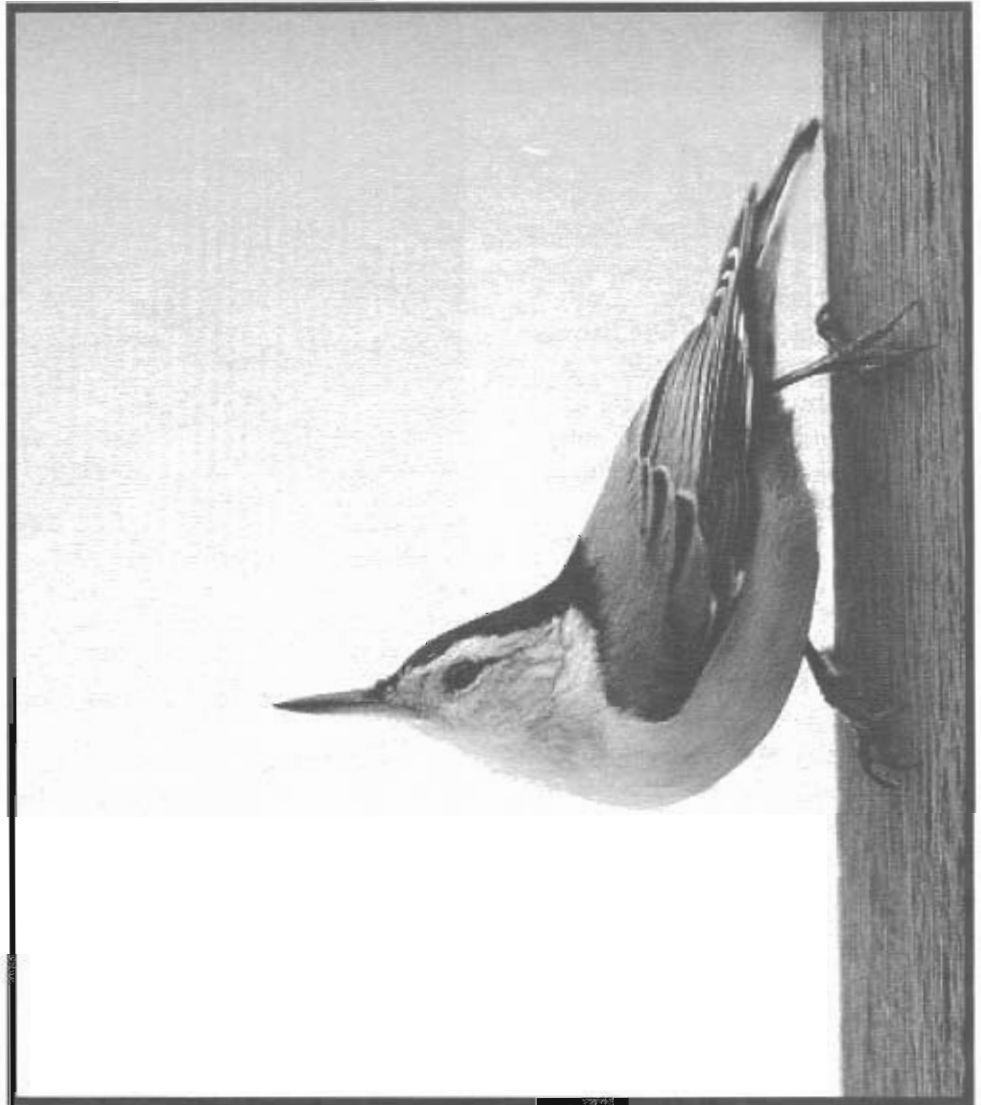


Renewing early and upgrading help NABS

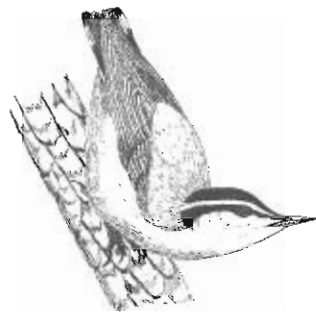
Please help NABS continue to be a continent-wide resource for bluebird conservation. The cost of simply doing business today is increasing. NABS has its share of paper, postage, and operational cost increases.

You can help by renewing at the next higher membership level. If you are a senior member (\$15), consider renewing as a regular member (\$20). If you are a regular member, consider renewing as a sustaining member (\$35). If you are a three-year regular (\$55), join for three years at full regular membership rates ($3 \times \$20 = \60). If your membership is enjoyed by two or more people, please renew at the family rate (\$30).

You also can help NABS save money by renewing your membership before your expiration date, noted on the mailing label of *Bluebird*.



This White-breasted Nuthatch was caught in typical nuthatch pose by Wendell Long, NABS member and photographer from Waynesville, Ohio. There are four nuthatch species in North America — White-breasted, Red-breasted, Brown-headed, and Pygmy. The White-breasted Nuthatch, with the largest range, is a permanent resident throughout the eastern half of the United States and some bordering portions of Canada, and in much of the West, absent only in the treeless central plains. The bird will use nest boxes, preferring to find them high off the ground. It usually selects natural cavities from 15 to 60 feet high.



The Red-breasted Nuthatch, a resident of coniferous forests found to the north into Canada, and at elevation in the West, sometimes moves south in winter in what is called an eruption. This movement is thought to depend upon food supply in the species' nesting territory. Look for this bird at your winter feeder.

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 this 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 your listing to see if it is up-to-date. If not, please contact webmaster@nabluebirdsociety.org with the correct information.

- CANADA**
- Alberta**
Calgary Area Bluebird Trail Monitors
 c/o George Loades
 167 Canterbury Dr. SW
 Calgary, AB, Canada T2W1H3
 E-mail: bluebird@creb.com
- Ellis Bird Farm, Ltd.**
 c/o Myrna Pearman
 Box 5090
 Lacombe, AB, Canada T4L 1W7
 E-mail: myma@ellisbirdfarm.ab.ca
- Mountain Bluebird Trails Cons. Society**
 Contact: Gwen Tietz
 P.O. Box 401 Stn Main
 Lethbridge, AB Canada T1K-3G9
 Tel: 403-553-2780
- British Columbia**
Southern Interior Bluebird Trail Society
 Sherry Linn, President
 Box 494
 Oliver, BC, Canada V0H 1T0
 E-mail: goldstrm@vip.net
- Manitoba**
The Friends of the Bluebirds
 3011 Park Ave.
 Brandon, MB, Canada R7B 2K3
 Tel: 204-727-5102
 Fax: 204-728-7346
 e-mail: smitha@brandonu.ca
 Contact: Ann Strath
- Ontario**
Ontario Eastern Bluebird Society
 2-165 Green Valley Drive
 Kitchener ON, Canada N2P 1K3
 Contact: Bill Read
- UNITED STATES**
- Arkansas**
Bella Vista Bluebird Society
 c/o Jim Janssen
 27 Britten Circle
 Bella Vista, AR 72714
 Tel: 501-855-7277
- California**
California Bluebird Recovery Program
 2021 Ptarmigan Drive #1
 Walnut Creek CA 94595
 Tel: 925-937-5974
 Fax: 925-935-4480
 E-mail: ctrip@value.net
- Colorado**
Colorado Bluebird Project
 c/o Bob Priestner
 6060 N. Broadway
 Denver CO 80216
 Tel: 303-291-7253
 E-mail: bluebird.project@state.co.us
- Georgia**
Bluebirds Over Georgia
 5858 Silver Ridge Dr.
 Stone Mountain GA 30087
 E-mail: fgsawyer@bellsouth.net
- Idaho**
Our Bluebird Ranch
 152 N 200 E.
 Blackfoot ID 83221
 Tel: 208-782-9676
 E-mail: pjbarnes@micron.net
- Rocky Mountain Blues**
 c/o David Richmond
 HC67 Box 680, Claydon ID 83227
 Tel: 208-838-2431
 E-mail: fowest@salmoncountry.net
- Illinois**
JoDavies County BBRP
 c/o Grace Storch
 431 Stadel Road, Elizabeth, IL 61028
 E-mail: bluebird@naturalareaguardians.org
- East Central Illinois Bluebird Society**
 c/o Loren Hughes
 1234 Tucker Beach Road, Paris, IL 61944
 suziq@comwares.net
- Indiana**
Indiana Bluebird Society
 P.O. Box 356, Leesburg IN 46538
 Tel: 219-858-9050
 E-mail: bluebird@maplenet.net
- The Brown County Bluebird Society**
 c/o Dan Sparks
 P.O. Box 660, Nashville, IN 47448
 Tel: 812-988-1876, fax: 812-342-3820
 E-mail: dansparks_47448@yahoo.com
- American Bird Conservation Association**
 c/o Merlin Lehman
 59980 C.R. 35, Middlebury, IN 46540
- Iowa**
Johnson County Songbird Project
 c/o Jim Walters
 1033 E. Washington, Iowa City IA 52240-5248
 Tel: 319-466-1134
 E-mail: james-walters@uiowa.edu
- Bluebirds of Iowa Restoration**
 c/o Jaclyn Hill
 2946 Ubben Ave., Elkhart, IA 50075-7554
 Tel: 515-836-4579
 E-mail: hills@netins.net
- Kentucky**
Kentucky Bluebird Society
 c/o Bob Ivy
 P.O. Box 3425, Paducah, KY 42002
 Tel: 270-898-6688 or 731-688-0031
 E-mail: bobivy@centarytel.net
- Louisiana**
Louisiana Bayou Bluebird Society
 c/o Evelyn Cooper
 1222 Cook Road, Delhi, LA 71232
 emcooper@bayou.com
- Massachusetts**
Massachusetts Bluebird Association
 Contact: Haley Priest
 89 Pulpit Hill Rd., Amherst, MA 01002
 Tel: 413-549-3937, fax: 413-549-2901
 E-mail: MaBlue@gis.net
- Minnesota**
Bluebird Recovery Program
 (Audubon Chapter of Minneapolis)
 c/o Mary Ellen Vetter
 P.O. Box 3801, Minneapolis MN 55403
 E-mail: mevetter@mninter.net
- Mississippi**
Mississippi Bluebirds
 c/o Tena Taylor
 192 CR 457, Calhoun City MS 38916
 Tel: 662-628-1625
 Fax: 662-628-1625
 E-mail: tenataylor@tycom.net
- Montana**
Mountain Bluebird Trails, Inc.
 c/o Bob Niebauer
 600 Central Ave., #320
 Great Falls, MT 59401
 Tel: 406-644-2740
 E-mail: blubr@bob@prodigy.net
- Nebraska**
Bluebirds Across Nebraska
 c/o Derry Wolford
 705 9th Ave., Shenandoah, IA 51601
 E-mail: derrywolford@hotmail.com
- New Hampshire**
New Hampshire Bluebird Conspiracy
 c/o Bruce Burdett
 P.O. Box 103, Sunapee NH 03782
 E-mail: bluebird@srnet.com
- New York**
New York State Bluebird Society
 c/o Kevin Berner
 499 West Richmondville Rd.
 Richmondville NY 12149
 Tel: 518-294-7196
 E-mail: bernerkl@cobleskill.edu
- Schoharie County Bluebird Society**
 c/o Kevin Berner
 499 West Richmondville Rd.
 Richmondville NY 12149
 Tel: 518-294-7196
 E-mail: bernerkl@cobleskill.edu
- North Carolina**
North Carolina Bluebird Society
 c/o Dempsey Essick
 PO Box 1149, Welcome, NC 27374
 E-mail: essickart@lexcominc.net
- Rutherford County Bluebird Club**
 P.O. Box 247, Edenboro, NC 28040
 Contact: Christopher Greene
- Ohio**
Ohio Bluebird Society
 c/o Doug LeVasseur
 20680 Township Road #120
 Senecaville OH 43780
 Email: emdlev@lover.net
- Oklahoma**
Oklahoma Bluebird Society
 Marion Liles
 5656 So. 161 W. Ave.
 Sand Springs, OK 74063
 Tel: 918-241-2473, fax: 918-699-3358
 Email: siafuk@worldnet.att.net
- Oregon**
Prescott Bluebird Recovery Project
 c/o Voice of Prescott
 P.O. Box 1469, Sherwood OR 97140
 Tel: 503-245-8449
 E-mail: email@prescottbluebird.com
- Audubon Society of Corvallis**
 Elsie Eltzroth
 6980 NW Cardinal Rd.
 Corvallis OR 97330
 Tel: 541-745-7806
 E-mail: eltzroth@peak.org
- Pennsylvania**
Bluebird Society of Pennsylvania
 P.O. Box 267
 Enola PA 17025-0267
 Tel: 717-938-4089 (Kathy Clark, Pres.)
 Fax: 717-938-0455
 E-mail: rputt@ezonline.net
- Purple Martin Conservation Association**
 Edinboro University of Pennsylvania
 Edinboro PA 16444
 Tel: 814-734-4420 (Louise Chambers)
 Fax: 814-734-5803
 E-mail: louise@purplemartin.org
- Tennessee**
Benton County Bluebird Society of Tennessee, Inc.
 Dan McCue, President
 108 Bland Street, Camden, TN 38320
 Tel: 901-584-5060
 E-mail: dmccue@usit.net
- Tennessee Bluebird Trails**
 c/o Steve Garr
 P.O. Box 190, Mt. Juliet, TN 37121
 E-mail: tnbluebirdtrails@msn.com
- Texas**
Texas Bluebird Society
 P.O. Box 40808, Austin, TX 78704
 E-mail: tbs@ustt.net
- Virginia**
The Virginia Bluebird Society
 Barbara Chambers
 8911 Morland Lane
 Annandale, VA 22003
 Tel: 703-978-6609
 E-mail: bj.chambers@verizon.net
- Washington**
Cascadia Bluebird and Purple Martin Society
 c/o Dr. Michael Pietro
 3015 Squallcum Pkwy #250
 Bellingham, WA 98225
- Wisconsin**
Bluebird Restoration Association of Wisconsin
 Rt. 1, Box 137 Akron Ave.
 Plainfield WI 54966
- Lafayette County Bluebird Society**
 14953 Hwy 23
 Darlington WI 53530

Join/renew NABS today

Mr. Mrs. Ms. A gift subscription for:

Name _____

Street Address _____

City/State/Prov/ZIP _____

Phone () _____ Fax () _____

E-mail _____

Credit-card charges are accepted:

VISA MC

Card # _____

Date of exp. _____

Signature _____

I authorize NABS to automatically charge my above credit card when my membership dues are up for renewal.

For memberships outside the U.S., please pay by VISA/MC or Postal Orders made in U.S. dollars; add \$4 per year to cover international postage.

Membership level

<input type="checkbox"/> Regular	\$20
<input type="checkbox"/> 3-year Regular	\$55
<input type="checkbox"/> Family	\$30
<input type="checkbox"/> Sustaining	\$35
<input type="checkbox"/> Supporting	\$50
<input type="checkbox"/> Student (under 21)	\$15
<input type="checkbox"/> 3-year student	\$40
<input type="checkbox"/> Senior (over 60)	\$15
<input type="checkbox"/> 3-year Senior	\$40
<input type="checkbox"/> Contributing	\$100
<input type="checkbox"/> Corporate	\$100
<input type="checkbox"/> Donor	\$250
<input type="checkbox"/> Life Membership	\$500

NABS Endowment Fund Contribution

I wish to contribute \$50 or more (tax-deductible) to the NABS Endowment Fund, an endowment fund that perpetually supports the bluebird conservation efforts of NABS.

Send completed form and payment to:

**North American Bluebird Society
P.O. Box 244, Wilmot, OH 44689**

\$6 of each member's dues is designated for subscription to *Bluebird*, publication of NABS.

NABS MISSION

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.

Time to renew?

Your address label, below, contains the date your NABS membership expires. **Is it time to renew your membership?** If so, please do it today, using the form on this page. 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.



BLUEBIRD published by
North American Bluebird Society
P.O. Box 244
Wilmot, Ohio 44689

Fall 2002

Bluebird is printed on recycled paper.
Please recycle when discarded.

Non-Profit Organization
U.S. Postage Paid
Darlington, WI
Permit No. 9

Inside this issue ...

President's message	Page 2
New board members	Page 3
2003 convention	Page 4
Using treated wood	Page 6
Budgerigar decline	Page 7
Gilwood test boxes	Page 8
Western Bluebirds	Page 10
Decline of pests	Page 12
Entrance-hole study	Page 13
NABS survey results	Page 14
Auklets and nest holes	Page 16
Award recipients	Page 18
Shore to Shore	Page 20



*****AUTO**ALL FOR ADC 680
ID# 39460 15
Member expires after: 4/1/03 128
Floyd & Marty Vanert
39755 HIGHWAY 92
CARSON IA 51525-4275