



BLUEBIRDS FLY!

California Bluebird Recovery Program Newsletter

For the encouragement and conservation of cavity-nesters — especially bluebirds — anywhere in the West

Hot Boxes Won't Be Cooled Down Easily

By Mike Azevedo, San Joaquin County

No one said being a nestling was easy. Sadly, we are learning that in some cases, it can be miserable.

In July 2022, we wrote here about a suspected flaw in the use of nest boxes in hot temperatures. When we think of our nest boxes, we think of them as being comfortable inside, even when temperatures are soaring outside. It must be nicer in the box. It's dark in there. Surely, it must be cooler as well.

In response to climate change and concerns about increasing summer heat and the effects on internal temperatures inside nest boxes, Lee Pauser, nest box mon-

itor in San Jose, conducted his own study in 2021. Lee compared the temperatures inside a nest box with a white painted exterior, and a weathered bluebird nest box of natural colored wood, using sensors that recorded the temperature readings when the boxes were in full sun. Lee's study also examined the use of a sun

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Nest boxes tested with various shields.

Photo by Mike Azevedo

Overall Results for 2022 Nesting Season

By Dick Blaine, Program Director

The top producers and counties in 2022 were similar to previous years. Reports were received from 22 counties, 160 monitors (155 in 2021) and 264 trails (275).

4,309 (4,495 in 2021) boxes were installed on the reported trails and yielded 15,087

(16,323) fledglings. Of those, 10,268 (9,857) were Western Bluebirds and the remaining 4,819 (6,466) were distributed among 16 other cavity-nesting species.

Orange County, as usual, was the top-producing county for the number of trails, nest tries, total fledglings and Western Bluebird fledglings.

The top 5 counties were: Orange 4,605/4,178 fledglings (total/WEBL); Santa Clara 3,306/1,467; Los Angeles

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Hot Nest Boxes Won't Be Cooled Down Easily

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shield over the nest box. Lee's most surprising finding was that temperatures within the nest box were no better than outside the box. In fact, they were actually higher inside than outside.

When I was a Boy Scout in the 1970s, I learned that nest boxes were not as good as natural cavities at regulating temperature. Those thick walls, I learned, were actually better at controlling temperatures within than the relatively thin walls of a nest box. Of course, that was not a big deal when temperatures outside were quite livable. But as temperatures climb from year to year, it will become far more of a problem that nest boxes don't have the insulative value of a natural cavity.

I now live in the Central Valley town of Manteca. Knowing that temperatures were going to be even higher than in Lee Pauser's San Jose, I felt it would be good to try Lee's experiment here, where temperatures reach over 100 degrees F. routinely. First, I would try to learn if temperatures in my boxes were also hotter than ambient temperatures. Following that, I would try as Lee did to verify my findings or, in some cases, plow new ground and determine what else might be done to solve this problem.

Sadly, I was only able to perform one experiment, not several, as I had hoped. The good news, or perhaps the bad news, is that I was able to both reproduce and unfortunately verify everything that Lee had found, in those experiments that duplicated his efforts.

Specifically, our nest boxes can operate as ovens to make hot temperatures even hotter.

Also, I found that the meager shields that I used did have an effect of reducing the heat inside. Unfortunately, the reduction was not satisfactory, as I will explain.

In Lee's experiments with sun shields, he used a wooden plate larger than the box's roof that was attached with screws. He left a gap between the roof and the plate to allow airflow.

Lee's findings were intuitive, as it makes sense that a shield over the top with airflow operates to effectively put the nest box in shade. It isn't simply thickening the wood, but rather making it so that the wooden roof is cooler, given the shade provided by the gapped shield.

While Lee's shield was larger than the nest box, I wanted to see if reducing that size of the shield would yield the same benefits. In my study, the shield was roughly the size of the roof. The shields were placed over the top of the roof. One thing I did test was to see if a gap made a difference, and if so, was a larger gap any better than a smaller gap?

For the study, there were five "stations." The first station was not a nest box at all but rather a structure that held a temperature sensor that would record ambient temperature. It had a roof to protect from direct sunlight.

The second station was a normal nest box. It had no shield or anything else.

The third station was a nest box with a shield over the top, but there was no gap.

The fourth and fifth stations had a shield that had a gap of, respectively, one-half inch and one inch.

Ultimately, the regular nest box, the one with no shields, was hotter than the ambient temperature. It was generally

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Hot Nest Boxes

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found to be several degrees hotter. The box with the ungapped shield was slightly better than the standard nest box, but not by much. And as the gap grew larger, the temperature grew more favorable, but surprisingly, the temperatures inside the nest box, at best, only reached ambient temperature. So, for example, if the temperature was 98 degrees F. outside, then the temperature inside was at best 98 degrees, sometimes higher.

This essentially verifies that there is, indeed, a problem. Luckily, there are several possible

fixes and, of course, the problem does not lie with all nest boxes. For example, although this wasn't tested yet, it can be presumed that a nest box in the shade will have the lower shaded temperature rather than the temperature in the hot sun.

Future studies will look at nest-box colors (verifying Lee's findings that color did indeed make a difference), best shield designs, and other potential fixes for rising temperatures.

This is a "hot topic"- please excuse the pun - and I've heard from others who intend to repeat these experiments in hopes of learning more on the subject. We'll keep you updated on what we find. ■

About the California Bluebird Recovery Program

Founder — Don Yoder • Emeritus — Hatch Graham

Our Mission

Enlist current bluebirders and recruit others who will help reestablish bluebirds to their normal habitat.

- Locate preferred habitat for the placement of nestboxes suitable for bluebirds.
- Secure monitors to care for the boxes and keep systematic records of the development of young birds during the nesting season.
- Record and analyze all annual summaries of nestbox records.
- Provide a forum (newsletter) through which fellow trail monitors can exchange information and secure help with problems.

Learn More

To learn more about the California Bluebird Recovery Program and other cavity-nester conservation programs, visit these websites:

www.CBRP.org

www.nabluebirdociety.org

www.socalbluebirds.org

www.sialis.org

If you are looking for a mentor, contact any board member at info@cbrp.org.

Please consider supporting our efforts

There is a donation form on the back page of this newsletter and a donation button on the main page of our website. Your contribution is tax-deductible and goes a long way in helping us conserve the bluebird population in California.

From the Director's Chair

California Bluebird Recovery Project has had several major accomplishments this year. We continue to be active in providing training for new monitors and giving talks at various Audubon Society chapters and garden clubs. Several of our board members have been experimenting with sunshades over nest boxes to see how effective they are. Their results are described on Page 1.

2022 results: Thanks to all of you who entered your 2022 results online. We used Google Drive again for online, shared data collection with few problems. The 2022 Annual Report and this newsletter are available in full color for viewing and downloading on our web site.

Annual reports are available at cbrp.org/annual-reports/. Newsletters are available at cbrp.org/newsletters/.

Articles summarizing the 2022 results appear in this issue of Bluebirds Fly! My overview is on Page 1 and selected state results are in a table on Page 2. The full 27 years of state results - box by box and trail by trail - are available on our web site. Link to www.cbrp.org and click on the "Results" tab.

Thank you: Special thanks to those of you who made donations to CBRP in 2022 (amounting to \$495 in the second half of 2022 and \$1,539 for the year). Your names are on Page 7. Donations can be made on our website or by mail; see Page 13. These donations go toward the purchase of nest-box material for new and updated trails.

Bluebirder nation: I was somewhat surprised to learn how few people



participate in the North American Bluebird Society (NABS). I joined many years ago and receive their beautiful magazine every quarter, Bluebird, Journal of the North American Bluebird Society. I read this cover to cover as it is full of interesting material on bluebirds. There are only 1,590 members total, with 50 in California. Their web site is nabluebirdsociety.org. As members of the California Bluebird Recovery Program (an affiliate of NABS), you may obtain a one-year, one-time introductory subscription for only \$15.

Data sharing: I want to encourage monitors to contribute to and participate in Cornell University's NestWatch Program using their web site or the bulk upload template (see link below) to preserve the nesting data you collect and to make that data available to researchers around the world. It is not too late to contribute your data to NestWatch.

NestWatch website: www.nestwatch.org

Bulk upload documentation: goo.gl/PqHXiX

Bulk upload template: goo.gl/6eQA9f (send the completed template to me and I will send your data to NestWatch).

Finally: Remember to get ready for the 2023 nesting season by cleaning and repairing your nest boxes by the end of February. Hopefully you will be able to access all of your trails.

Happy New Year, happy 2023 birding and stay well. ■

Dick Blaine - dick@theblaines.net
CBRP Web site - cbrp.org

Mentors Help Teens Take Flight

By Georgette Howington, Contra Costa Co.

Tom Garry (my nest-box-monitor partner for the past 18 seasons) and I started sponsoring Girl and Boy Scouts many years ago. They find us in a variety of ways. Sometimes we meet scout leaders at community events who ask us if we sponsor scouts. Or we get referrals from scouts who have troop members who also want to work on their Eagle badge. Every now and then, a school official will contact us to ask if we are available to mentor a student. However we are introduced, it is always exciting to embark on a new journey with a young person striving to achieve their Eagle or a series of badges by contributing to the nest-box program!

Every scout and student we meet and work with is unique, but they have some things in common. Most are in high school, in their mid-to late teens, high achievers in their schools, have strong parental support and are ambitious. They have their sights set on certain colleges they want to attend, and some know what they want to major in but not all do. We have sponsored scouts who have challenges like ADHD and autism spectrum, but that does not stop them from achieving their goals.

The skills required to start, work on, and complete a project give the young person many opportunities to grow and develop through the process. First, they must complete their paperwork after we decide to work together. This must describe the scope and impact plus timeline of their project. It is presented to their scout supervisor for approval.

Tom and I brief the scout or student about the history of the nest-box program, demonstrate the physical aspects of a nest box, give them a nest-box plan, and talk about the importance of monitoring. Proj-

ects we assign vary and depend upon what we feel the young person is best suited for.

Examples of projects we have assigned are:

1. Build 10 bluebird nest boxes and deliver to the person who needs them.
2. Build 5 bluebird nest boxes and install them. (They must get permission by the owner or manager of the property where they will be installed.)
3. Build 1 Kestrel box, 1 Barn Owl box and 3 bluebird boxes.



Illya Puskin, Eagle Scout candidate, installing his nest boxes at the Ancient Oaks Vineyard in Santa Rosa.

Photo by Georgette Howington

These are the basic projects, but we have had variations depending on the scout. Some have no experience with woodworking. Some have parents who help. Tom and I have had scouts who've never used hand tools or power tools. In those cases, we ask one of our volunteer wood workers to help us out. Luckily, we have a few volunteers who have wood shops in their garage and are willing to guide and teach the ones who have no experience and do so safely.

We guide and assist the scout throughout the project, careful not to do too much. We want the scout or student to know that they are the ones in charge.

We prefer to take the scout onto a nest

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Teens Grow Through Bluebird Projects

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box trail, if possible, and have him/her monitor a few with live nests. In this way, we aren't just making nest boxes, because they experience first-hand what the boxes are for and how amazing they are for the birds. This is very important for the scout because he/she realizes the contribution being made by making and installing nest boxes. This can be life-changing. Ideally, we monitor the boxes with a scout through the season, so they can witness the entire life cycle.

It's obvious to us this makes a lasting impression.

Whenever possible we include learning about habitats of the cavity-nesting birds; native plant communities; and introductions to iNaturalist, eBird and the Seek app. Some of our projects have included nature journaling, GPS mapmaking and learning about recording data for NestWatch and CBRP. We also recommend books, websites and articles about birds and related subjects. Almost all of them are well-educated about climate change. In other words, we try to give them as much subject matter as we can during the time we share.

The projects should not be just about building nest boxes to earn a badge. It is essential they understand what the boxes are for, why they are needed and how important it is they are monitored properly (including keeping data) to ensure success.

We want each one to realize they are making a real contribution to the environment plus being activists.

Most of our projects last an average of six to eight months. One parent is always with us, and we always include parents in every



Tom Garry, longtime nest-box monitor, with Christian Cooper, a senior at Northgate High School in Walnut Creek. Georgette Howington mentored Christian through his environmental senior project.

Photo by Georgette Howington

email, text, or telephone conversation. We ask parents to sign photo releases if we want to take photos or video of the scouts or students during the projects. After the project is completed, we are often invited to attend their Eagle Courts of Honor. Some of them stay in touch with us, send holiday cards and let us know how they're doing while in college!

These days we always have 3-5 Eagle Scout candidates or students to sponsor and mentor. If you have the interest and time, both Tom and I recommend that you join us. It is one of the most joyful, rewarding and delightful of ways to contribute to the nest-box program and support young people in their quests to achieve life goals.

If you have any questions about sponsoring, please feel free to contact me at info@cbrp.org. ■

Rescuing A Baby Hummingbird

By Ronnie Eaton, San Mateo County

While checking one of my bluebird trails at a golf course recently, I was hailed by a golfer who told me his friend had found a baby bird and had it with him (yikes!). Inside his bag was not a bluebird, as I expected. It was a baby hummingbird!

The baby appeared to be a few days from fledge; it was almost ready to fly, but not quite. The man said he had found the baby bird in the grass at hole #3. Since there were other golfers and mowers nearby, he had scooped it up.

I gently cupped the baby hummingbird in my left hand, thanked him for his help and went as "fast" as the slow, slow, slow golf cart could go to hole #3. My mind was racing -- how would I find the exact spot where the baby was found? How could I possibly find a tiny hummingbird nest to put the baby back in? As I drove the cart, steering with my right hand, the baby hummingbird struggled to get free from my cupped left hand and began to call, loudly! At every bump and rattle of the cart, of which there were many, I talked to the baby hummingbird, telling her "Hang on, we're almost there." She promptly responded with more loud calls!

Once I got to hole #3, I parked under some young redwood trees at the edge

of the hole and uncupped my hand to see what the baby would do. She climbed onto my index finger and gripped with her little feet as if she would never let go. I figured it would be impossible to find the nest, but I walked through the trees looking. I hoped the baby's calls would attract the parent but didn't expect much, then suddenly, a hummingbird appeared! I gently unlatched the baby from my finger, offering her a perch on a redwood branchlet, and there she sat, calling out and opening her mouth any time the adult hummingbird came within range.

I wasn't sure if the adult bird was the parent, because at first, it just seemed to be curious about the baby, dipping low to have a look and flitting back and forth, then flying off. I saw it moving in the trees and thought (hoped) that it might be looking for insects for the baby, or perhaps its own nestlings. Maybe I could locate the nest if I watched where it went. I was getting desperate as the baby's calls were getting weaker. Then the hummingbird came back and gently fed the baby! Woohoo! I was ENORMOUSLY relieved! I almost cried tears of joy.

You never know what a day on your bluebird trail is going to bring. Good luck, little one, I hope to see you darting about the course! ■

CBRP Donors July-Dec 2022 • \$495

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Overall Results for 2022 Nesting Season

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1,249/1,235; Alameda 1,129/798; and Contra Costa 973/550.

The top 5 producers were: Lee Pauser, Santa Clara, 1,413/556 (total/WEBL); Irv Tiessen, Alameda, 1,118/787; Hanika Cook, Solano and Yolo, 918/368; Jerry Millett, Los Angeles, 649/642; and Christine Tischer, Orange, 450/108.

The table of state results below shows CBRP results for the first and the most recent of the 27 years during which CBRP has been collecting data (1996-2022).

From 1996 through 2006, trail-by-trail data were collected from handwritten worksheets, summarized by county co-

ordinators, and entered into a statewide spreadsheet. From 2007 through 2011, box-by-box, trail-by-trail data were entered by monitors directly into a home-grown database.

For the past 11 years, trail-by-trail data have been entered by monitors directly into a shared, on-line spreadsheet.

If you are willing to enter additional box-by-box information with dates and detailed results, I strongly encourage you to participate in Cornell University's e-bird and/or Nestwatch programs. Data on the Nest-Watch site is of great scientific value and provides information for researchers all over the world. I'll help you! See the directions in my column on Page 4. ■

California Bluebird Recovery Program 1996-2022 (All Species)

| | 1996 | 2010 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Average* |
|--------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|----------|
| Counties | 21 | 24 | 24 | 21 | 20 | 20 | 24 | 24 | 26 | 22 | 24 |
| Reporters | 169 | 192 | 160 | 178 | 169 | 172 | 170 | 127 | 155 | 160 | 180 |
| Species | 16 | 23 | 20 | 21 | 20 | 19 | 19 | 19 | 20 | 20 | 20 |
| Boxes (N) | 2,400 | 5,274 | 5,601 | 5,793 | 5,333 | 5,358 | 5,397 | 4,218 | 4,951 | 4,309 | 4,596 |
| Tries (T) | 1,526 | 3,939 | 5,526 | 5,742 | 6,007 | 6,291 | 6,826 | 4,770 | 5,371 | 4,518 | 4,313 |
| T/N | 0.6 | 0.7 | 1.0 | 1.0 | 1.1 | 1.2 | 1.3 | 1.1 | 1.1 | 1.0 | 0.9 |
| Eggs (E) | | 28,751 | 26,262 | 27,509 | 27,395 | 27,097 | 29,012 | 21,491 | 23,767 | 20,719 | 24,133 |
| E/N | | 5.5 | 4.7 | 4.7 | 5.1 | 5.1 | 5.4 | 5.1 | 4.8 | 4.8 | 5.1 |
| E/T | | 7.3 | 4.8 | 4.8 | 4.6 | 4.3 | 4.3 | 4.5 | 4.4 | 4.6 | 5.4 |
| Chicks (H) | | 23,014 | 21,234 | 22,872 | 22,998 | 22,840 | 24,624 | 18,122 | 19,895 | 17,821 | 19,707 |
| H/N | | 4.4 | 3.8 | 3.9 | 4.3 | 4.3 | 4.6 | 4.3 | 4.0 | 4.1 | 4.3 |
| H/T | | 5.8 | 3.8 | 4.0 | 3.8 | 3.6 | 3.6 | 3.8 | 3.7 | 3.9 | 4.6 |
| H/E | | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 |
| Fledged (F) | 5,077 | 20,737 | 18,144 | 19,873 | 20,246 | 19,731 | 21,164 | 16,223 | 16,323 | 15,087 | 16,229 |
| F/N | 2.1 | 3.9 | 3.2 | 3.4 | 3.8 | 3.7 | 3.9 | 3.8 | 3.3 | 3.5 | 3.5 |
| F/T | 3.3 | 5.3 | 3.3 | 3.5 | 3.4 | 3.1 | 3.1 | 3.4 | 3.0 | 3.3 | 3.8 |
| F/E | | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 |
| F/H | | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 |

*Average of non-zero values for 27 years

2020 Note: Results about 20% less than prior years as Covid-19 pandemic resulted in closure of many trails

2021 Note: Results were close to pre-pandemic values but some trails were still closed

To see all 27 years of results: www.cbrp.org/results/

To see 2022 results by trail and species: www.cbrp.org/annual-reports/

When Fire Struck, Bluebird Mom Stayed True

Story and photo
by Dan Airola, Sacramento County

Since 2020, my partner, Pete Stine, and I have been managing and monitoring 25 nest boxes at River Bend Park within the American River Parkway in Ranch Cordova, Sacramento County. Boxes at this productive area have had 96-100% annual occupancy by Bluebirds, Tree Swallows, and Ash-throated Flycatchers. Here, we report on results of a wildfire that burned across our study area, and the impressive dedication of a female Bluebird to feed young in a box that fell to the ground.

River Bend Park supports dense, tall, weedy vegetation dominated by yellow starthistle (*Centaurea solstitialis*) and other Mediterranean grasses and forbs. We have hot, dry summers with average high daily temperatures of 70-90+ degrees F. in April-July. Boxes were mounted 6-9 feet high on 3/4-inch galvanized conduit attached to wooden poles. They were spread 250-350 feet apart over an 80-acre upland area several hundred feet to a half-mile from the American River.

On June 28, 2022, a wildfire burned through an area with five nest boxes. We were notified of the fire early in the afternoon of the next day and were out there by mid-afternoon to take stock. Two boxes were damaged but had already fledged young. One active box was undamaged and ultimately fledged young. Another active box fell, broke open and was found empty, presumably due to premature fledging or predation.

At the fifth box, we found that the fire had burned the wooden pole supporting the conduit, and the box had fallen. It lay on its side but remained closed and intact. Fortunately, the entrance hole was on the side of the box in its new position, not face-down.



As we walked up to that fallen box, we noticed a female Bluebird with food perched in a nearby shrub. We stood back and watched her enter the box and heard begging young. We examined the box and found three healthy, half-grown young in the box, and one nestling that was likely killed when the box fell.

We re-erected the box by attaching the conduit to a metal fence post, which put the box only about 4 feet off the ground (see photo). We stood back again, and the female returned to the box within a minute and continued feeding the young. Thus, this female likely had been caring for the young in the box on the ground for about 24 hours. The three young later fledged successfully.

Our loss of nestlings to the fire was limited due to rapid response by firefighters and the dedication of that Bluebird mother. Our experience impressed upon us the threat of fire to our birds and their boxes. We are advocating for a controlled grazing or mowing program in the area to protect boxes and improve foraging habitat for the Bluebirds and other species. In the meantime, we've added weed-whacking a 10-foot-diameter area around each box to our list of maintenance duties. ■

A Very Unusual Brood

By Kate Brennan
Nevada County

Nesting in bluebird boxes started very early this past year in the Sierra foothills - bluebird eggs appeared in one of my boxes on March 23. And many unusual activities were reported by our nest-box monitors throughout the season. But the tale of this very unusual brood is my most fascinating experience in 10 years of monitoring nest boxes.

This most unusual nest was on our Garden Bar trail in Nevada County. Nest boxes are usually visited once a week once monitoring begins, and on the 7th visit of the season to this box (4/28), it was apparent that a Western Bluebird (WEBL) was building a nest and it was almost complete. The next week, it was complete. However, there was black and white fur around the edges, indicative of an Ash-throated Flycatcher (ATFL) nest. And there was an ATFL in a nearby tree calling out. Next visit, 2 lovely brown and white ATFL eggs were in the nest, along with a bit more black fur. So, it looked like the ATFL won the battle for that box. However, on the



next visit, there were 5 eggs in the nest, but now there were 3 ATFL eggs, and 2 beautiful bluebird eggs, with a female Western Bluebird on the telephone wire. Whoa, a mixed brood! I had never seen this before.

So the question that came to my mind was - who was going to sit on these eggs?? Would they all hatch? Who's going to feed them? The first egg to hatch was a Western Bluebird. You can see in the photo, one scrawny pinkie with one blue egg remaining and 3 white and brown eggs.

And who flew out of the nest as we approached - the Ash-throated Flycatcher. The only parents seen in all subsequent visits were the Ash-throated Flycatchers. On our next to last visit to this box, we were lucky to observe the two ATFL parents in nearby trees calling to the nestlings, and as Rhian Gastineau, the monitor helping me this season, approached the box, one fledgling ATFL flew out and crashed into the tree near one parent. Rhian quickly snapped a photo inside the nestbox and hurried back to the car. The photo she took showed alternating ATFL and WEBL nestlings all lined up like little jets ready to take to the air.



Amazed and delighted!

As monitors, we rarely get to witness the actual fledging of the young birds. But we sat in the car and watched for a bit to see what would happen next, and were overjoyed as we watched another young ATFL fly out of the nest box, lured by the incessant calling of the parents.

Since two birds had already fledged, it was likely the others would follow suit, that day or the next. But it was VERY HOT, so we left. And we went back for the final visit to this box 3 days later, just to see if the Bluebirds did indeed fly off with the Flycatcher family, and we found the box empty. It appeared that all the birds had fledged successfully (no dead birds inside). I expect that sometime I will notice some Western Bluebirds in my neighborhood with very strange vocalizations - not totally a Western Bluebird sound, and not totally an Ash-throated Flycatcher. ■

Got Mites? 'Renesting' May Be Needed

By Ronnie Eaton
San Mateo County

Sooner or later I knew that it might happen -- mites in a nest box! Over the past few years I had read about this and other problems that one might find during a nest-box check in order to learn ahead of time "what to do when" a problem is encountered. There is, fortunately, a lot of good information out there about any number of concerns, even black bears! Well, that hasn't been a problem for us yet, but I do have one trail where my monitoring partner Marsha and I have to step over mountain lion scat!

During a recent check of a Tree Swallow nest box, we were horrified to see THOUSANDS of minute-sized mites swarming all over the top of the nest box and my hands! They were reacting to the motion of the nest box as we took it down to check the nestlings. Far worse than what we saw on the outside of the nest box was what we feared the nestlings were suffering inside the nest box.

The nestlings were about 10 days old and, fortunately, looked fine. However, one nestling was standing up on the rim of the nest in the back of the nest box fussing loudly. We weren't sure if it was from our having opened the nest box or from the mites, but regardless, it was obvious something had to be done

to minimize the number of mites in the nest box if these nestlings were to successfully fledge. We had no tools with us or enough specific information to be able to deal with the mites that day, so we had to close up the nest box and leave things as they were.

In my subsequent research I learned that mites are quite common on TRES (check out treeswallows.com) and less likely on Western Bluebirds. I'm not sure if this is because TRES are inherently more susceptible to mites, or if they carry them to the nest box via the feathers they collect for the nest. I was surprised to read that mites often are not as bad as one thinks and that birds have evolved a number of ways to tolerate them. However, large numbers of mites can weaken nestlings as they take their blood meals. Additionally, nestlings that survive the mites to fledge may be weakened by blood loss and won't survive to adulthood.

I had read that "renesting" is one way box monitors can deal with infestations of nests from mites and other parasites, such as botfly. Renesting means replacing an infested nest with a clean one: either an old nest that you know is free of

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CBRP Board Members

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Contact us at info@cbrp.org

Sylvia Wright, Newsletter Editor

This newsletter uses the Comic Sans font for greater accessibility for everyone

How to Manage a Mite Infestation

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parasites and that you have saved, or a new nest that you fashion from the same materials as the nest being replaced. I decided to check with one of our local experts, Lee Pauser with Santa Clara Valley Audubon Society. Lee is always tremendously helpful and a true font of information. He has experienced problems with mites and has done renesting but he also recommended just treating the existing nest and young with food-grade diatomaceous earth (DE). I decided that since the mite infestation was so severe that I would both renest and treat with DE.

While you can easily buy food-grade DE online, I didn't want to wait, so I found food-grade DE at a local health-food store.

Okay, now for the clean-out! I had to put aside my trepidation as to how the nestlings would react to all of this and focus on the process. I removed the infested nest box, placed it on the ground and positioned the tub close by. I opened the nest box and gently pulled out the liner and nest with the young swallows, placing my other hand gently over the nestlings as I transferred the liner and nest to the tub. I then removed them from the nest and laid a towel over the top of the tub to keep them quiet.

I took the infested nest box and nest/liner some distance away and placed them into a plastic bag and wiped my hands with alcohol. Then I gathered dried grass strands about 5-8 inches long and fashioned a new nest by wrapping the grass around my hands, laying it in the clean liner and com-

Supplies for Mite 'Renesing'

- New, clean nest box
- New plastic liner for the nest (made from a berry container or suet container, with lots of holes in it for drainage)
- Large, deep plastic tub
- Grasses for new nest
- Towels, alcohol and plastic bags
- Painter's tape
- Diatomaceous earth and hand duster

pressing it as I went until I had a good, deep rim. I gathered more grass for the cup and again compressed it into place. Finally, I placed several clean chicken feathers into the nest around the cup that I got by sacrificing one of my cat's feather toys (!) and placed the new nest/liner into the nest box.

I used the duster to apply some diatomaceous earth to the bottom and sides of the nest to deal with mites that would come off the

nestlings. To keep the nestlings quiet once they were placed into the clean nest box, I placed blue painter's tape very lightly over the nest box opening to keep the nest box dark and prevent them getting out of the opening. This type of tape is not very sticky and would not harm the young if they did try to get out. (You could instead stuff a rag or sock into the opening.)

Now to the nestlings! One by one, I gently picked up a nestling from the tub and cupped it in my hand, lightly dusted it on the back, tummy, tail and under the wings with diatomaceous earth, then opened the clean nest box and laid it gently into the nest, closing the nest box after each transfer. They were all amazingly cooperative, except for one, who took great exception to the entire process and fluttered around the tub screaming bloody murder!! Sheesh! I believe that it was the same nestling that was protesting when we opened the nest box and found the mites originally!

Finally all nestlings were positioned in the clean nest box and allowed to sit quietly

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Mite management

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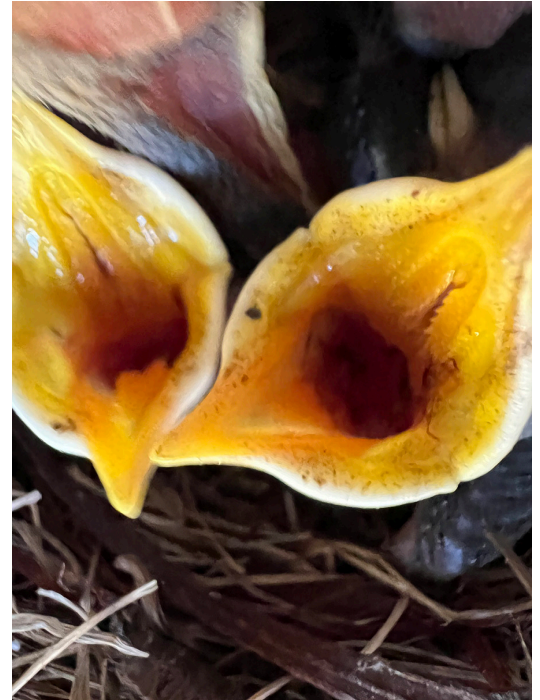
for 5 minutes before I gently removed the tape from over the entrance hole and lifted the nest box back into position in the tree.

I gathered up all the materials and retreated to observe the nest box and wait for the parents to return. After a few minutes, the parents began to circle near the nest box and eventually landed on the opening. After a couple of visits, a parent entered the nest box. I waited until both parents were returning with food, which only took about 10 more minutes, before leaving.

Phew! So, know that you, too, can survive finding a nest box infested with mites!! We are fortunate to have wonderful, experienced nest box monitors such as Lee Pauser and others who are very happy to share their knowledge and help out anyone who needs it.

I am now putting together a "mite kit" that I'll have with us in case we come across other nest boxes infested with mites. It took this experience to show me that while reading is helpful to learn about potential problems, there is nothing quite like the real thing to get you up to snuff on how to deal with them in the field! ■

Big Mouths



Did you know that WEBL parents 'test' nestlings to see if a food item will fit in their mouth? If the prey is too big, the parent gives it to a larger sibling. Photo by Cindy Lockhart, San Mateo County

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Scenes of Summer 2022

Larry Jordan of Shasta County photographed a Western Bluebird leaving her box with a fecal sac and an Ash-throated Flycatcher hatching.



Fred Glasser photographed a Western Bluebird warming her eggs and a Tree Swallow with a beautiful view.

A Backyard Refuge for Bluebirds

By Gretchen Dempewolf
San Diego County

My family has lived in Bonita, San Diego County, since 1978 and our home has a wide variety of avian visitors. My mother, Sandra Dempewolf, has been a longtime supporter of the Southern California



Bluebird Club and has placed three of its bluebird nest boxes in our yard. Though she hasn't felt up to the challenge of monitoring local trails, she has encouraged bluebirds to come to her yard over the past 10 years.

At first, we

didn't have much luck, despite putting out mealworms and nest boxes. Then, in 2018, a bluebird pair nested in one of our boxes and fledged four or five chicks. Bluebird pairs have returned to the yard and nested in our boxes since then, but we haven't always been able to keep precise tabs on their hatchlings.

2022 was the BEST year ever, though! I arrived in Bonita in early May and stood down near a large pepper tree in the yard next to us. I observed

bluebirds going from the tree to the grass below and counted at least eight separate individuals, though it sounded like there may have been more. Shortly thereafter, I observed a pair of bluebirds building and sitting on a nest in one of our tree-mounted boxes. Toward the end of May, I heard lots of cheeping from the box, and on May 24, I saw five chicks fledge and leave the nest.



We thought the birds were done for the summer, but in mid-June, another pair started a new nest in the other tree-mounted box! They sat on eggs in July and four more chicks fledged from the box between July 30 and August 4.

All told, our yard put NINE new bluebirds out into the world -- we were delighted! I watched parents bring a variety of food to the boxes, ranging from insects to tiny lizards, and including berries from the pepper tree. They enjoyed two birdbaths we have in the yard and used various



perches as lookouts for food or predators.

All chicks looked healthy and flew directly from the box

to a transitional area, monitored by the parents. It was an amazing summer for Western Bluebird activity in Bonita! ■