Cornell Lab announces decline of cavity-nesters

In an appeal for funds to assist in the study of birds and their habitat, the Cornell Lab of Ornithology recently pointed to the decline of birds in forested habitat over the past 30 years. The four specifically listed were the Lewis's Woodpecker of the cool western mountains, named for famed explorer Meriwether Lewis which has dropped by an alarming 50%!

The Canada Warbler of coniferous northeastern North America has declined 40%. The spectacular Prothonotary Warbler of the southeastern United States has declined by more than 32% and our cheery little Oak Titmouse of the dry oak habitats of California and Oregon is down 33%. All but the Canada Warbler are cavity-nesters.

NABS MEETS IN COLUMBUS, OHIO JUNE 21-24, 2001

Time is running out if you plan on the **NABS** annual convention. Hosted by **Ohio Bluebird Society**, the program promises to be intriguing and inspiring.

For more information check the NABS website at www.nabluebirdsociety.org or contact **Dean Sheldon** (419)752-1451, **Doug LeVasseur** (740) 685-5220, or **Darlene Sillick** (640) 761-3696

\$2.50 per issue

suggested donation

BLUEBIRDS FLY!

Bluebird Recovery Program's newsletter

—sponsored by National Audubon Society-California—an affiliate of the North American Bluebird Society

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

First Egg Survey

Nestbox starts varied throughout the State

In response to our request for the first egg laying dates throughout the State, we find that conventional wisdom *doesn't* necessary prevail. While, in the long run, birds usually nest earlier in the south and at lower elevations and later in the north and at higher elevations, there are often surprises.

Specifically how did our survey turn out? See the map on page 10 for the results of our most reported species. In addition to the early nesting Oak Titmouse, a few Western Bluebirds and Tree Swallows had started before the first of April.

In addition, other early starters included Cassandra Draxler's White-breasted Nuthatch on 3/29 at 1400' in El Dorado Co, and Dick Purvis's Wood Duck on 3/5 at 150' in Orange.

But the earliest dates may not be the norm and may pose problems for those that jump the gun on Spring weather. **Bev Jordan**'s 3/23 start in El Dorado was abandoned after 4 blue eggs. By 4/13, **Ray DiBasilio** had 2 bluebird nests of 4 and 5 eggs abandoned probably during the cold rain that fell 4/6, 7, & 8 at his 1600' elevation, also in El Dorado.

And on 4/10, **Dianne McCleery**, in Amador Co. reported, "Not only do I not have any eggs, I don't even have a complete nest—only 3 starts of nests." Only 2 miles distant, out of 70 nestboxes, **Hatch & Judy Graham** had only

one Tree Swallow nest with eggs; the first was laid on 3/31.

Three weeks later, in Descanso, San Diego Co, at 3200', **Gail Wynn** had seen bluebirds around, but at that elevation, none had started nesting. Surprising to those of us 6° to the north, she has seen Ash-throated Flycatchers already, but there, she reports, as is true farther north, they always nest later

In El Dorado Co., retired forester **Dick Day**, thinks the local weather plays an important factor. On 4/21, he wrote, "the weather has confused our birds. Of my 4 boxes I now have 2 nesting bluebirds with 5 eggs each. The 1st box had its first egg on 4/8. It now has 5 eggs. The weather was very warm back then. We set at 1063' in elevation. The 2nd box did not produce any eggs until 4/17 and now has 5 eggs. My 3rd box had a start of a nest on 3/26 [1" of nesting material], but there has been no activity since then(?). My 4th box has Tree Swallows in it and they are probably close to laying eggs now as there are a lot of feathers in the nest.... The weather here has been up and down. After the warm spell we had temperatures down to about 25° or 26°F and I lost a lot of new buds and fruit on my fruit trees."

Marion Kunkel, at 2800' in Amador Co, reports her first bluebird egg on 4/28 with the temperature 68°. She says, "nest started 3/23 and finished in a few days. Weather has continued on page 8

ANNUAL REPORT 2000 ~ FINAL ANALYSES

by Bob Franz

Wood Ducks

When it comes to wood ducks, nobody holds a tail feather to **Steve Simmons** of Merced County. He reported a whopping 293 tries with 4,044 eggs, 2,783 hatchlings and 2,760 fledglings. This works out to be a hatchling survival rate of 99 percent!

Second was **Kevin Putman** of Yuba/Sutter counties, who reported 149 tries with 2,751 eggs, 1,150 hatchlings and 1,111 fledglings. The 18.5 eggs/try number was the most reported by wood duck monitors, and his hatchlings survival rate was way up there — 97 percent!

Tree Swallows

Total number of fledgling honors go to **Jan Wasserman** of Ventura Co, who reported 696 fledglings (3.6 per try). Closely following are **Christine Mukai** of Orange Co with 176 and **Barbara Moore** of Nevada Co with 161. **Hatch Graham**, Amador Co, also reported good numbers with 31 tries, 171 eggs (5.5/try), 123 hatchlings (4/try) and 102 fledglings (0.83 survival rate). **Cecilia Perez** of Orange Co posted impressive numbers with 3 tries and 19 eggs, hatchlings and fledglings. You can't be more perfect than that!

TRES Totals by County

Eggs per try—ranged from 6.1 in Lake to 3.8 in Kern.

Hatchlings per try—ranged from 5.5 in Lake to 3.0 in Placer.

Fledges per try—ranged from 5.0 in Lake to 2.5 in San Luis Obispo.

Fledges per egg—ranged from .90 in Kern to .56 in Yuba/Sutter.

Fledgling survival rate—ranged from 1.0 (13/13) in Tuolumne to .71 in Humboldt.

New coordinator for Nevada County

Walt Carnahan writes, "I have replaced Carole Miller as the coordinator of the Sierra Foothills Audubon Society's bluebird project. I was instructed in the art of siting and installing bluebird boxes by Richard Nickel [CBRP Co-coordinator] before his untimely death last spring. Our project was given a boost by some publicity in the *Grass Valley Union* and we had a lot of people who built, installed and monitored their bluebird boxes. Hence, our 2000 totals were up from 1999."

Don Yoder asked Walt to accept the job of Nevada County Coordinator and Walt accepted. Lorry Hukill, former co-coordinator will continue to assist her neighbors with any problems that arise. Nevada Co includes Grass Valley, Nevada City, and extends over the Sierra crest past Truckee.

Welcome aboard Walt!

Pioneer website moves location

The Bluebird Box is moving to a new URL. The new location is:

http://audubon-omaha.org/bbbox.htm

Jim McLochlin, Omaha, NE, who has hosted the premier bluebird site at AOL for about seven years is moving to @home.com so his new email address for all bluebird, website, Audubon, and any other birding related activities is:

bluebirdbox@home.com

If you haven't enjoyed Jim's web pages in the past and you have internet access, you should update your links on web pages and bookmarks.

His site is an excellent source for nestbox plans, construction details, discussions on House Sparrows, House Wrens, predatory mammals, winter feeding and a host of other subjects.

California Bluebird Recovery Program

Founded in 1994, supported by National Audubon Society-California and affiliated with the North American Bluebird Society, CBRP is "for the encouragement and conservation of cavity-nesters—especially bluebirds—anywhere in the West"

CBRP is non-profit, has no paid staff, and is supported entirely by the efforts of volunteers and donations accepted by the Mt.Diablo Audubon Society on CBRP's behalf.

CBRP members had located and reported on more than 4,000 nestboxes by the end of 2000, with more than 15,000 cavity-nesters fledged—nearly half of them western and mountain bluebirds.

CBRP welcomes membership from the public who wish to support its program, and especially seeks those who will place appropriate nestboxes in the proper habitat, faithfully monitor the birds' progress through the nesting season, and report yearly on the results.

CBRP can furnish nestbox plans, a monitoring guide, forms for monitoring and reports, technical advice through a network of county coordinators, and sometimes the nestboxes themselves.

Membership, which includes this quarterly newsletter is available for a donation of \$5 or more made payable to "MDAS—Bluebirds" and mailed to CBRP, 2021 Ptarmigan Dr #1, Walnut Creek, CA 94595. Donations are tax-deductible.

California Bluebird Recovery Program

Don Yoder.

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BLUEBIRDS FLY!

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Bluebirder questions Wisconsin single vs paired box study

In *Wisconsin Bluebird*, Spring 2001, vol 16, no 1, page 11, newsletter of Bluebird Restoration Association of Wisconsin (BRAW), Joe O'Halloran asserts that their Single vs Paired Box Study supports his position advocating the elimination of nestbox pairing.

Frank Navritil, Jr. of Illinois analyzed the study using Yield/box vs Yield/site data. He says, "I converted the reported BRAW yield for paired birdhouses data into yield/site data by doubling the reported values for paired birdhouses (since a per site definition usually means two birdhouses closely spaced at one location). In other words 'fledged/100 box paired' also means 'fledged from 50 sites.'

"Bluebirds fledged/100 box **singles** = 210. Bluebirds fledged/100 box **paired** = 124. Bluebirds fledged/100 paired **sites** = 248 (my converted numbers).

"Tree Swallows fledged/100 box **singles** = 130. Tree Swallows fledged/100 box **paired** = 181. Tree Swallows fledged/100 paired **sites** = 362 (my converted numbers).

"Bluebird doubles for **singles** = 11.7%. Bluebird doubles for **paired** = 6.6%. Bluebird doubles for paired **sites** = 13.2% (my converted num-

bers).

"Bluebird nests/100 box **singles** = 58. Bluebird nests/100 box **paired** = 40. Bluebird nests/100 box paired **sites** = 80 (my converted numbers).

"So I say to myself, not bad no matter how one cuts the cake. This shows that paired sites produce more birds in total. In fact, paired sites seem to produce more bluebirds than unpaired sites!

"Unless you consider Tree Swallows an undesirable bird, birdhouse pairing seems a good approach.

"So, are Tree Swallows an undesirable bird? In my neighborhood Tree Swallows are still very welcome.

"From what I understand, Bluebirds and Tree Swallows feed in compatible ways. Bluebirds tend to favor insects at ground level. Tree Swallows tend to favor flying insects. Seems to me that these birds are quite compatible and that the only limit on population is the food supply—provided there is an abundance of nesting cavities.

"Is there someone that can address these thoughts? Should efforts be made to limit or reduce Tree Swallow populations?

"Maybe Wisconsin needs more paired sites and fewer unpaired sites?"

Support our sponsors



Founded in 1978, the North American Bluebird Society (NABS) is a non-profit organization determined to increase the populations of the three species of bluebirds on this continent. Inasmuch as the populations of these birds have diminished due to the maladroit actions of human beings, as well as natural disasters, the society strives to explain the importance of preserving native cavity-nesters.

The society works within the bounds of effective conservation to study obstacles impeding bluebird recovery and to promote ideas and actions which might reduce their effect.

Membership is \$15. NABS's mailing address is PO Box 74, Darlington, WI 53530.

National Audubon Society

There are local chapters of the National Audubon Society (NAS) in all fifty states, Guam, and Latin America. In California there are over fifty local chapters. Chapters have newsletters, monthly programs, and field trips to local areas of interest.

To join NAS, contact your local Audubon Chapter, or call NAS-California at (916) 481-5332. National dues are \$20 for new members, and include a bimonthly magazine as well as membership privileges in your local Audubon chapter.

LETTERS WE LIKE TO SEE

Emily Heaton, a UC Berkeley graduate student, is studying the various ecological ramifications of converting oak woodland grazing land to vineyards. She is working with David Graves, CBRP Coordinator in Sonoma County. She recently purchased a complete set of back issues of BLUE-BIRDS FLY! Writing to Don Yoder, she says,

"...I really appreciate and learn something new with each newsletter that I read. I don't know how often you look into academic journals, but these newsletters are 100 times more informative than any journal articles I've read. I'd really like my project to help those critters whose homes keep getting chopped down. It may turn out that it won't, but the more I can learn from others' experiences, the more likely I am to succeed. BLUEBIRDS FLY! is a great newsletter. I'm looking forward to future issues. Take care, Don. And once again, thanks. —Emily"

Thanks for the compliment, Emily. —Ed.

Oaks, Acorns, & Acorn Woodpeckers

by Walt Koenig, Research Zoologist, Hastings Reservation, UC Berkeley

No species is more intimately associated with oaks than the Acorn Woodpecker, a common resident of oak woodlands throughout California. Acorn Woodpeckers eat acorns directly off trees in the fall as acorns mature. More dramatically, they harvest acorns in large numbers and store them in special trees in their territories in which the birds have drilled holes, each of which can hold an individual acorn. Holes are used over and over each year and accumulate with time. Indeed, such "storage trees" or "granaries" have been reported to contain up to 50,000 acorns or more!

In good acorn years, Acorn Woodpeckers not only reproduce extremely well the following spring but may even successfully breed in the fall, fledging young as late as early November. However, in poor years, the birds are forced to abandon their territories and wander off in search of acorns elsewhere. How far they have to go presumably depends on how geographically synchronous the acorn crop is within and between species of oaks. If the acorn crop was poor and synchronous both among individuals of the same species and across species over a large geographic area, there would be few acorns anywhere nearby and the birds might have to travel a very long distance before finding an area where there were enough acorns to survive. Whereas, if the acorn crop is not synchronous within and between species, they may only have to travel a few miles before coming to an area with lots of acorns where they could survive through the winter.

This brings us to the question of geographic synchrony in acorn production within and between species of California oaks. In order to address this issue, **Jean Knops** of the University of Nebraska and I initiated the California Acorn Survey in 1994. Currently encompassing 16 sites from Shasta to San Diego County, the survey involves visually counting acorns of over 950 trees of 7 species of oaks.

With only six years of data the results are preliminary, but the general conclusion is clear: acorn production is highly synchronous over large geographic areas for at least several of the species. For example, blue oaks, which we survey at 10 localities over a 500-mile transect both in the Sierra and coast ranges, are synchronous throughout the state (i.e., when it's a good year for blue oaks in Shasta County, it's also a good year for blue oaks in Santa Barbara County). Blue oaks cover approximately 3 million acres of woodland in California at densities (based on vegetation surveys at Hastings Reservation in Monterey County) of about 173 trees per acre, which means we're talking on the order of over 100 million trees, each of which produces a crop of acorns synchronously with the others. If we assume an average of 1,000 acorns per tree in a good year, we're up to 100 billion acorns—enough to support a lot of woodpeckers, as well as anything else that can handle the bitterness of raw acorns in its diet.

The flip side, however, is that in a bad acorn year, few or no blue oak acorns are likely to be found almost anywhere in the state. Fortunately for Acorn Woodpeckers, as well as other acorn-dependent species, most areas in California contain several species of oaks and synchrony among species of oaks is generally not great. This is especially true between "1-year" species (such as blue

and valley oaks) that require only a single season to mature acorns, and "2-year" species (such as California black oak and canyon live oak) that require two years to mature a crop of acorns. Consequently, when it's a bad year for blue oaks, it's unlikely to concurrently be a bad year for California black oaks or canyon live oaks present in the same area. Because Acorn Woodpeckers, like other birds and mammals that eat acorns, tend not to be picky about which species they use, this means that the probability of a total crop failure in a locality is low, despite the large geographic synchrony exhibited by individual species.

These features of the acorn crop have dramatic consequences on the geographical ecology of Acorn Woodpeckers along the Pacific coast. Most strikingly, the range of Acorn Woodpeckers generally is restricted to sites containing two or more species of oaks, presumably because the probability of total crop failures in areas with only a single species of oak is too high to maintain populations over the long term. Second, the annual variability of Acorn woodpecker population size at a site is less when the number of species of oaks present is greater. That is, when there are more species of oaks in an area, both the overall acorn crop and the population size of Acorn Woodpeckers are more stable and fluctuate less from year to year. Meanwhile, the absolute size of the Acorn Woodpecker population in an area appears to depend primarily on the amount of oak woodland present. Thus, the average population size of Acorn Woodpeckers is determined by oak abundance, while annual variability in population size is determined by resource variability, which is in —continued next page

OAKS, ACORNS, &

—from page 4 turn inversely dependent on oak species number.

Put differently, these results demonstrate that greater biodiversity of oaks enhances both the viability and stability of Acorn Woodpecker populations. But although Acorn Woodpeckers are an extreme, they are only one of several notable species dependent on acorns in California. Whether similar kinds of relationships between oak diversity and the geographical ecology of deer, wild pigs, turkeys, jays, or quail exist today, or with grizzly bears and native Americans in the past, remain to be investigated.

—reprinted from oaks'n' folks, v. 15, Issue 1, Mar 2000. UC Berkeley Integrated Hardwood Range Management Program

NESTBOX ACORN SILOS

In our Winter 1998-99 issue of BLUEBIRDS FLY!, Hatch & Judy Graham reported on finding 2 nestboxes on their Hwy 124 trail filled with acorns.

In response, **Doris** & **Bill Allison** wrote: "Meant to comment ever since I read your report regarding your acorn findings.

"We find a lot of our boxes full of acorns each fall. The interesting thing to us is that if we don't empty them early in the season, the cows will eventually rub on them enough to knock them down for the acorns.

"Their sense of smell is very good of course; and they eat a lot of acorns, even though it is not thought to be very good for them. The acorns are high in calories but some cows seem to get almost addicted to them. They get a loose stool and don't gain very well during the acorn period.

"I suspect if there wasn't other forage to buffer the acorns they would be much more toxic to the cows."

Standard nestboxes serve many others

Linda Violett, Orange Co writes: "Monitoring nestboxes is a labor of love by volunteers who build, install and maintain nestboxes for our declining bird populations—all at their own expense. Careful observation of bluebird nestboxes creates an overflow of solutions which benefit not only bluebirds, but other species.

"Yorba Linda Councilman Gene Wisner and his wife, Annette, accepted a nestbox in their backyard last year. Their nestbox provided a home in which five Bewick's Wrens were raised. Bewick's Wrens are in an even steeper decline than our Western Bluebird so it shows how the bluebird efforts are helping our other birds as well."

As experienced landlords know, Oak Titmouse, Ash-throated Flycatcher, Tree and Violet-Green Swallows, and many others use our boxes.

Bluebird sonnetized by New Yorker poet

We were surprised to see a poem in *The New Yorker* magazine about the bluebird. Its pages have often been graced by poets such as **W.H.Auden**, **Elizabeth Bishop**, **Sylvia Plath**, **e.e. cummings**, **William Carlos Williams**, and many others. We don't remember a bluebird poem, however.

Moreover, we've never seen a bluebird poem in a form somewhat like a Shakespearean sonnet. We like both free verse and formal poetry but avoid 'Hallmark' sentimentality and trite jingles unless they have the humor of an **Ogden Nash**.

From the author we received this note, "Condé Nast has forwarded to me your letter asking to reprint in your newsletter *Bluebirds Fly!* a poem of mine....I'd be delighted if you would....I thank you for your interest in my poem, and I wish you luck in your efforts on behalf of bluebirds."

A SCRAP OF SKY

The bluebird, famous for the scrap of sky
Borne on his back— an indigo so bright
That just a glimpse of his distinctive flight,
All swoop and flurry, captivates the eye
And makes us smile for having made us start—
Has hope and optimism to the marrow,
Or has at least the pluck to reappear
In fields where he was dispossessed last year;
And there that feathered terrier the sparrow,
Bearing no more than murder in his heart,
Will once more wait to steal the nest and drive
The weaker, more attractive bird away,
So beauty comes each spring and tries to stay,
And so does drab determination thrive.

-George Bradley

From *Some Assembly Required*, Knopf, 2001; originally published in *The New Yorker*; reprinted with permission of the author.

DONYODER'S NOTES FROM THE FIELD

Final Notes from Year 2000: Our large final report in volume 6 did not have sufficient room for all our correspondents, and your Program Director has been busy building nest-boxes. But keep your reports coming in....

The thrills of birding are revealed in many ways. **John O'Hara**, Orange, reports, "I had a wonderful experience this year. I was able to hand feed my couple by placing meal worms in the palm of my hand. What a thrill."

Fred Pilot together with Vaughn & Terry Hintze, El Dorado, had their 4 boxes available in the spring, in time to be checked out by Western Bluebirds—but none were found acceptable. (Surely, the rent was not too high. –D.Y.)

Sully Reallon, Örange, was bent upon increasing the bluebird population by leaps and bounds: "....for the first time I had seven clutches of six eggs."

At her vineyard in El Dorado Co, Enid Reeves reports she had thought 2000 was not as good a year as 1999 until she looked at her tally. "This was a lot better even though 5 nests were started, even to 4 eggs, and then abandoned. Wasps were a problem, too." She was "really pleased" to have her first nesting and fledging of Whitebreasted Nuthatches.

Helga Hammond, Amador, provided nestboxes and a party but bluebirds came and left early. Invitations will be out for 2001 house-hunters.

Some irreverent critter raided one of Carol Scrivner's boxes in Orange County, but four bluebirds fledged

from 2 boxes and 12 eggs.

With simply outstanding results in both birds fledged and capital return, the students at Merced High School, Merced, engage in a nestbox production program for their benefit and for prospective welfare of Barn Owls. In $4\frac{1}{2}$ years the students have built and sold over 4500 Barn Owl nestboxes, and realized a return of "over \$60,000 in scholarships in the last 4 years." The figures reflecting this effort by Steve Simmons and his classes were displayed in the Annual Report with the last newsletter. All of this also speaks well of the community involvement and support which make such figures possible.

Bluebirds and everybody else left **Helen Slaughter**, El Dorado, high and dry—no nest and no eggs—but hope springs eternal for the new year.

Up at 3300 feet elevation **Tony** & **Donna Stieber**, Fresno, offered 4 boxes, but 2 went unappreciated. The remainder get all the business; one placed 15 feet from a road is a regular producer.

One of five boxes maintained by Rachel Talbot, Amador, must be a jinxed box. In April she found a dead male bluebird in a partially completed nest. Before the end of the month a female completed the nest, laid 3 eggs, and was found dead. Neither bird had any signs of violence to cause their deaths. In May, an Ashthroated Flycatcher moved in, built a nest, laid 5 eggs, but abandoned them. A new nest-5 eggs-and again abandoned. In five years the 5 boxes have produced 3 flycatchers. Certainly, the low production is not due to lack of effort by the tenants.

Irv Tiessen, Alameda, managed 9 trails, experienced the usual problems and frustrations with 8 species, and planned some habitat changes before the new year begins. Weather in the second week of June was especially destructive of newly hatched chicks. One box fledged 16 birds.

John & Sandra Turner, Tuolumne, observed fewer bluebirds than in prior years. However, nestings by Barn Owls, an Oak Titmouse, House Wrens, starlings and American Kestrels kept up the interest among occupants and landlords alike.

At Tustin Ramch Golf Club, Cecilia G Perez, Orange, has reported to the Program since its inception in 1994. The numbers of nestboxes, Bluebirds, and Tree Swallows, almost without exception, have increased annually.

Linda Violett, Orange, reports that the only effect of increasing the number of nestboxes was an influx of House Sparrows. She will continue the added boxes except where landowners have a problem with sparrow disposal. She uses a 2-holed box with special roofs to deter House Wrens—still on an experimental basis.

Norman Watenpaugh, Santa Clara, reports occurrences which lean in favor of the cavity nesters: "Starlings had an accident," and Barn Owls ate the Rock Doves.

Orange County surely has no monopoly on problems with ants but the critters were especially aggressive in nestboxes of **Peter J Wetzel**, where a number of hatchlings were lost to their attacks. Nestboxes on an inherited trail will be converted to 'hang-

ers' and moved to new locations.

In Santa Barbara, Richard A Willey, will equip his boxes with raccoon guards to improve net production in '01. (8" min. length, we hope.—DY.)

Robert Yohr monitors on a golf course in Calaveras Co. In his first annual report to us he relates that young birds, well feathered, died in the box. This also parallels information from a friend of his who had the same experience. (We have to won-

der if some toxic materials are being applied to the fairways and brought to the brood on food—See article below on Pesticides—DY.)

Oliver & Peggy Young, San Luis Obispo, have a newly established trail of 13 nestboxes, part of which were placed post-season. Making a good start, 3 of the boxes fledged 21 from the same number of eggs. Oliver favors side-opening boxes to be installed for the new season.

Reporting from Humboldt Co, **David Hagemann** proudly notes 2000 was the "first year that I have ever had second nests of Tree Swallows." He had 2 second broods in a total of 8 broods.

And from El Dorado Co, **Viola Sampert** sadly states, "I have nothing to report this year.

"No action except bees in my boxes. I'll try to do better next season with consistent and frequent monitorings."

The seven worst Pesticides

These products have the highest number of avian incidents reported to the US Environmental Protection Agency (EPA). Read the label before using them in your yard or garden. All but one are organic phosphates which are cholinesterase inhibitors. (Cholinesterase is an essential blood enzyme which facilitates coagulation.) Some of their symptoms can include salivation, muscle contractions, tremors, convulsions, vomiting, diarrhea, respiratory secretions, bronchoconstriction, labored breathing, cyanosis, and ultimately death.

Carbofuran

Brand name: Furadan, is an insecticide and nematicide used primarily in CA agriculture on alfalfa, corn, rice, potato, grapes, and sunflowers.

"Very highly acutely toxic" to birds, over the past 30 years over 100 bird species have been documented as dying from carbofuran exposure.

Diazinon

Brand names: Diazinon & Spectricide are used as an insecticide. The highest use category is homeowner applications. Up to 4 million pounds are applied to lawns, shrubs, and gardens each year. Another 4 million pounds are used in agriculture on fruits, field crops, pasture, forage,

and grasslands.

Bird die-offs can occur months after application.

Fenthion

Brand names: Baytex, Rid-A-Bird. An insecticide, acaricide, avicide. It has been used by aircraft spraying for mosquitoes and on ranches to automatically treat cattle for ticks and other insects. Among the many types of birds succumbing to dermal spray or inhalation of ultra-low levels of mist are songbirds. Secondary poisoning occurs in hawks, falcons, owls, and other birds of prey.

Chlorpyrifos

Brand names: Dursban, Lorsban. Uses are extensive: as an insecticide on row, field, fruit, nut, and vegetable crops; for fire ants, ornamental, and nursery applications; for home pests, structural pests, turf, and livestock.

Birds have been found dead or dying on lawns where it was recently applied. Most retail sales will be phased out by the end of this year. Most agricultural uses will continue. It is still used on many golf courses, road medians, in dormant oil sprays in orchards, and on agricultural crops attractive to birds.

Brodifacoum

Brand names: Havoc, Talon, Warfarin, Accoumarin. Rodenticides; anticoagulants. These are the dominant rodenticides marketed for home use.

It requires multiple feedings by mice

and rats to reach a lethal dose. In the meantime, lethargic rodents can be prey items for a large number of animals including hawks and owls.

Death in the predator usually results not due to toxicity but as a result of any minor wound that allows the raptor or other predator to bleed out.

Recent data have shown an alarming increase in wildlife kills associated with this phenomenon.

Ethylparathion

Brand names: Parathion, Folidol. Insectide. Registered in the US for use on 9 crops including sunflowers, corn, alfalfa, cotton, soybeans, canola, and wheat. In the West, it is mainly used on corn and sunflowers.

Parathion is potentially the most toxic of all pesticides used in the US. It is due to be phased out of application by Oct 31, 2003. But use in Latin America will continue to threaten many North American migrant species.

Famphur

Brand names: Warbex. Insecticide. Used on livestock. Fed via a premix or pour-on formulation for parasite control. It has caused a notable loss of wildlife that feed on ectoparasites or scavenge on carcasses baited with famphur.

Adapted from an article in Bluebird, v23, no2, N. Am. Bluebird Soc., which was excerpted from Birding, Am. Birding Assn., written by Kelley R. Tucker, Am. Bird Conservancy. For more, visit the ABC website:

www.abcbirds.org/pesticide/pesticideindex.htm

Spring monitoring in San Mateo

by Howard Rathlesberger, San Mateo Co. Coordinator

An eventful day on Filoli Trail #1 (Filoli Gardens, Woodside) with Max Grandfield, Anne Miller, and Dick Wiesner. We were monitoring a modified NABS box with a slight sloping front and a Peterson 2½" x 1Å" opening on a non-treated utility pole.

Dick noticed a starling fly away from the same pole and discovered on the opposite side of the box a woodpecker/flicker hole at eye level 2" in diameter and 2" into the cavity, which was about 7-8" deep. The starling flew out and perched on the wires above. The box had been placed on 2/15, is facing SE and the hole was facing NW. Not sure whether a woodpecker or flicker made it! Thanks to Dick for observing the starling and hole.

I think it's evident that the starling coudn't enter the Peterson type elongated hole. There are 3 additional boxes along this string of poles, so it would have had lots of choices. We'll certainly come up with appropriate action once the starling eggs are detected or chicks hatched.

Further on trail #1, we recaptured an OATI (Oak Titmouse) hen incubating 8 eggs, banded last year in a box about 100 yards away on 4/17. On 4/22, 10 eggs were counted covered with a fur cap. The following week only 5 eggs were recorded, and had failed on 5/12. Hope she has better success this year. This is the 2nd OATI recaptured so far this season, plus 3 new hens and 1 Western Bluebird (WEBL) recapture.

Yesterday, 4/3, Max and I banded a WEBL sitting on 6 eggs on the Nielsen trail in Portola Valley and an OATI hen with 6 eggs in Woodside in a hanging box in an oak.

2000 ANNUAL REPORT YIELDS MORE DATA THAN MEETS THE EYE

by Robert L Franz, Orange Co.

Comparison of data by species will provide more information when we have accumulated more years analyzed in the same manner. Some information that needs to be followed include:

- 1. Wood Ducks averaged over 15 eggs per try. No wonder they have the highest hatching and fledging rates. Are they always this successful?
- 2. Mountain Bluebirds outperformed Western Bluebirds slightly by fledging 3.6 vs 3.5 per try. This appears to be because of fewer egg failures. Is this a trend?

A comparison of data by counties shows that Santa Clara takes the prize for highest species diversification. Eleven species were reported there. Six other counties had 8 species.

El Dorado County had the most volunteers—45; Orange was second with 25.

Orange Co reported on 812 nest-boxes; Merced with 422 (all from one reporter—Steve Simmons).

Most fledges were in Orange Co with 3561. Merced fledged 3303—mostly Wood Ducks.

Volunteers active in more than one county—**Dick Purvis** in 4; **Hatch** & **Judy Graham** in 3. The Grahams reported 7 species, Dick had 6. (*The Hatch Graham in Contra Costa is the other Hatch's son.*)

Apologies to Solano Co for missing its totals and for other glitches in the report forms. Our compiler has difficulty keeping up when individual reports arrive over a five-month period rather than being submitted promptly at the end of season.

(Your editor is the compiler. Bob Franz took the data compiled and made these analyses. —Ed.)

First Egg Survey

continued from page 1

been so iffy I think that's the reason she took so long before laying her first egg!"

At higher elevations, in the eastern Tehachapis in Kern County, Clark & Jean Moore reported on 4/24, "First [bluebird] egg on the 3000' trail was 3/28! Only 5 boxes at this location. First egg at 5000' elevation trail approximately 4/14. Some chicks have already hatched at the 3000' elevation. We had 5 inches of snow at 5000 feet last Saturday (4/21)." At the same elevation, but southwest where the Tehachapis and the Coast Ranges meet, **Don Johnson** reported no nestings as yet.

As late as 4/25, no birds had laid eggs in the far north end of the state. **David Hagemann** wrote from Rio Dell, elevation 150', in Humboldt, "I have 15 boxes—only one has a completed (or nearly completed nest)—Tree Swallow. All other boxes are empty....I might get my first eggs next week. Mostly the weather is too unsettled yet."

Above the 41st parallel, in Alturas, Modoc Co at 4400', **Charles Welch** hasn't even seen any birds flying around (4/27). This is our highest, most northern monitoring location.

Our thanks to others who responded to our first egg survey, Glenda Glass, Doris & Bill Allison, Dian Gower, and Marion Kunkel in Amador Co, Gail King, Carol Wilburn, Doreen Rothlisberger, Shirley West in El Dorado Co, Kevin Putman in Yuba Co, Monty Loyd in Fresno Co, and those shown on Page 10.

Is it latitude, elevation, local weather conditions, bird species, or a combination of factors? Nationally, Cornell Lab of Ornithology and the North American Bluebird Society are trying to collect information on nesting dates. Here in California, CBRP will continue to do the same.

WESTERN BLUEBIRD LONGEVITY RECORD BROKEN IN OREGON

While banding in Sherwood, OR, last summer, **Marilynne Keyser** recaptured a six-year-old male Western Bluebird. He had been banded as a nestling at a nearby nestbox on July 11, 1994.

He was recaptured nesting on property across the street from the banding site in both 1998 and 1999.

This is a longevity record for Western Bluebirds (5 years 11 months), according to Bird Banding Laboratory records.

Fred Robinson recaptured a male bluebird that is at least five years old at a nestbox on his property in Newberg, OR. It was banded as an adult at the same nestbox on May 16, 1996, making the bird at least one-year-old when banded.

Since then, Fred has recaptured that bird nesting in the same location in 1997, 1998 and 2000.

Although not recaptured in 1999, his mate from the prior years was recaptured, suggesting that he was the breeding male in that year as well. With this assumption, we conclude that this male fathered 12 broods over the five years, producing 62 offspring.

from Prescott Bluebird Recovery Project PO Box 1469, Sherwood, OR 97140

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Old stuff for oldtimers:

A primer on bluebird decline

We often forget that this newsletter, BLUEBIRDS FLY!, goes out to new and old nestbox landlords and other cooperators, many of whom don't know the whole story of our program. The following concise history was prepared by the North American Bluebird Society with whom we are affiliated.

You may want to give this article to a friend who doesn't understand.

Why put out Nestboxes?

Over the years, land has been cleared for housing and industrial developments, shopping malls, highways, and cropland; many old trees have been cut down for firewood. Wooden fence posts that provided nesting cavities have now been replaced with metal posts. With modernization, the supply of natural nesting cavities for bluebirds and other native cavity-nesters has been greatly reduced.

Compounding the problem of habitat loss has been the introduction into North America of two imported species—the House Sparrow and the European Starling. Both starlings and sparrows are cavity-nesters, and both are very aggressive. House Sparrows are small enough to enter any hole that a bluebird can, and are so aggressive that they will chase away the more timid bluebird. Starlings can be excluded from bluebird boxes by using the correct size entrance hole, but will out-compete bluebirds for woodpecker holes and other natural nesting cavities.

During the summer, bluebirds feed mainly on insects. In the winter, bluebirds depend on many kinds of wild berries for their food supply. However, the supply of wild berries has also decreased over the years. The few berries that remain are often stripped quickly by large flocks of starlings.

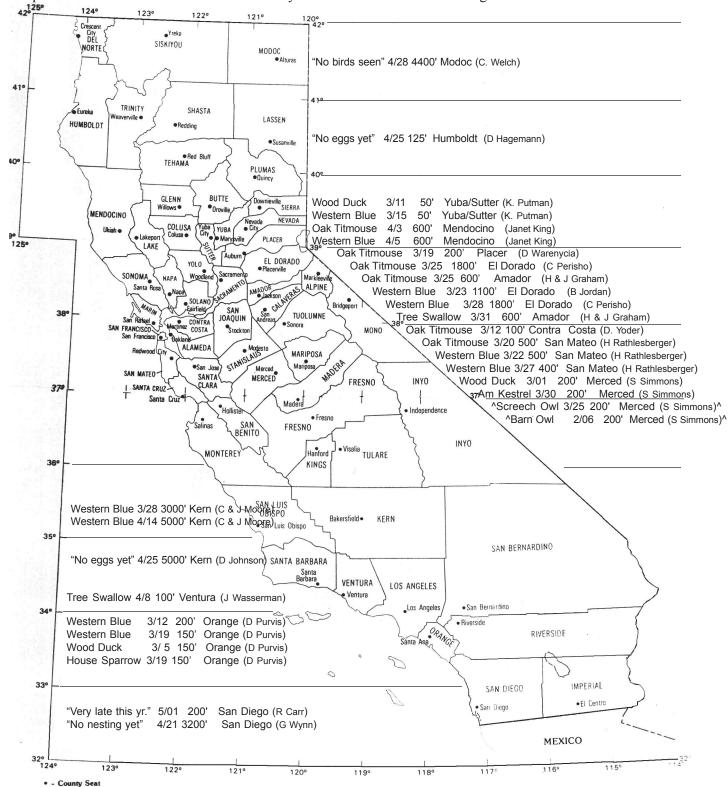
Even though the bluebird population has greatly decreased, the future can still be promising for them. The most important step we can take to help bring back the bluebird is to provide nesting sites by setting out a bluebird box or starting a bluebird trail. A bluebird trail is a series of bluebird boxes placed along a prescribed route. In areas where nesting boxes have been put up in suitable habitat, bluebird populations are increasing. Bluebirding is a great environmental, hands-on project that people of all ages can enjoy. By following instructions on building and mounting nestboxes, choosing proper habitat, and carefully monitoring the boxes, chances are good that you will be able to attract and enjoy bluebirds, as well as other beneficial and needy cavity-nesters.

First Egg Survey

Just when did the season start?

California spans 10 degrees of Latitude as shown on this map. Each degree is approximately 69 miles from south to north. As a general rule, the climate is warmer closer to the equator and at lower elevations. Our small sample would seem to indicate local weather may be the controlling influence.

Experience shows there is a wide variation from season to season as the birds adjust to the local weather patterns. Still, it is valuable to have an idea when to commence our monitoring. Here are some results for 2001.



Call your coordinator if you need help—

Are you having problems identifying your birds? Are you having problems with wasps, blowflies, mites? Have your nestlings been abandoned? Are your nestboxes being invaded by House Sparrows? Your County Coordinators can give you advice and assistance, or have resources they can call on to help. Keep in touch.

COUNTY	COORDINATOR	STREET	CITY/STATE/ZIP	PHONE VOX	PHONE FAX	EMAIL
Alameda	Ann Kositsky Raymond A. Fontaine	1090 Miller Ave P.O. Box 92	Berkeley, CA 94708 Livermore, CA 94551	(510) 527-5091 (510) 447-0213		ajpa@pacbell.net
Amador	Penny Brown	20624 Parkside Dr	Pine Grove, CA 95665	(209) 296-3849		penny@cdepot.net
Butte	Emily Harbison	3536 Butte Campus Dr	Oroville, CA 95965	(530) 895-2449		deb@cin.butte.cc.ca
Calaveras	La Verne Hagel	466 Thompson Lane	Copperopolis, CA 95228	' '		
Contra Costa	Shirley&Warren Engstrom		Moraga, CA 94556	(925) 376-4695		wlese@juno.com
	Oscar Enstrom	1932 Golden Rain Rd	Walnut Creek, CA 94595	, ,		bigo@lanset.com
El Dorado & Amador		P.O. Box 39	Somerset, CA 95684	(530) 621-1833	(530) 621-3939	birdsfly@innercite.com
Georgetown Divide	Viola Sampert	5655 Hollow Ln	Greenwood, CA 95635	(530) 333-0318		
Lake	Jeannette Knight	PO Box 152	Cobb, CA 95426-0152	(707) 928-5250		
Lassen	Edward Bertotti	470 413 Wingfield	Susanville, CA 96130	(530) 257-3774		
	Mike Magnuson	PO Box 767	Chester, CA 96020	(530) 258-2141		
1 A I	Tom Rickman	PO Box 2017	Susanville, CA 96130	(530) 257-2151		
Los Angeles	Doug Martin	13066 Shenley Street	Sylmar, CA 91342	(818) 367-8967		
Madera	William Rihn	PO Box 1648	Coarsegold, CA 93614	(209) 683-3052		
Marin	Ruth Beckner	15 Portola Avenue	San Rafael, CA 94903	(415) 479-9542	(445) 200 0747	
Madaaa	Meryl Sundove	37 Greenwood Bch Rd	Tiburon, CA 94920	(415) 388-2524	(415) 388-0717	
Mariposa	Lawrence Punte Charles Welch	9443 Banderilla Dr	LaGrange, CA 95329 Alturas, CA 96101	(209) 852-2559 (530) 233-4534		
Modoc Napa & Sonoma	David Graves	PO Box 825 1500 Los Carneros Ave	Napa, CA 94559	(707) 257-0843		
				'		welt@ore not
Nevada	Walt Carnahan Dick Purvis	12821 Bradford Dr 936 S Siet Place	Grass Valley, CA 95945 Anaheim, CA 92806	(530) 273-4599 (714) 776-8878		walt@oro.net Dickersly@aol.com
Orange Placer	Lesa Chan	9720 Oak Leaf Way	Granite Bay, CA 95746	(916) 791-4529		habitat@jps.net
Plumas	Patricia Johnson	PO Box 767	Chester, CA 96020	(530) 258-2141		парнацејрѕ.пет
Riverside	Melissa Browning	10154 Beaumont Ave	Cherry Valley, CA 92223			
San Bernardino	Glen Chappell	1923 Abbie Way	Upland, CA 91784	(909) 981-1996	Char	pell@CHS.Chaffey.K12.CA.US
San Diego	Rosemary Fey	PO Box 1245	Borrego Spgs,CA 92004		Criap	pell@Cl13.Challey.R12.CA.03
San Joaquin	Thomas Hoffman	10122 E Woodbridge Rd	Acampo, CA 95220	(209) 369-8578		thoffman@lodinet.com
San Luis Obispo	Judith Burkhardt	8560 El Corte	Atascadero, CA 93422	(805) 466-3272	hı	urkhardtpaul@thegrid.net 3.
San Mateo	Howard Rathlesberger	230 Ridgeway	Woodside, CA 94062	(650) 367-1296	(650) 369-4788	HJRath@aol.com
Santa Barbara	Richard Willey	4172 Vanguard Dr	Lompoc CA 93436	(805)733-5383	(000) 00000	willey@utech.net
Santa Clara	Garth Harwood	5901 Pescadero Crk Rd	Pescadero CA 94060	(650) 879-0724		GarthHar@aol.com
Santa Cruz	Nanda Currant	530 Amigo Road	Soguel, CA 95073	(408) 462-3703		hearth@cruzio.com
Sonoma	Mike Crumly	23555 Hwy 21	Sonoma, CA 95475	(707) 996-7256		
Sutter	Kevin A. Putman	2884 Coy Dr	Yuba City, CA 95993	(530) 755-1480		dputman@syix.com
Tehama	Pete Flower	331 Oak Street	Red Bluff, CA 96080	(530) 527-0392		. 3,
Tulare	Peter C. Morrison, MD.	325 So. Willis	Visalia, CA 93291	(209) 733-1154		
Ventura	Jan Wasserman	1158 Beechwood St	Camarillo, CA 93010	(805) 987-3928		bandlady@west.net
Yuba	Kevin A. Putman	2884 Coy Dr	Yuba City, CA 95993	(530) 755-1480		dputman@syix.com
All Other Counties	Don Yoder	2021 Ptarmigan #1	Walnut Creek, CA 94595	(925) 937-5974	(925) 935-4480	cbrp@value.net

Find out more about your birds—have them banded

When you have determined your estimated hatching date, call a bander if one is near. Schedule permitting, the bander may be able to band the adult incubating the eggs and/or the nestlings a week or so after they pip from the eggs. Banding helps us learn about the site fidelity of the adults, the dispersal of the chicks, longevity, and other elements of population dynamics.

Amador & southern El Dorado	Hatch Graham	(530) 621-1833
	Susan Yasuda	
El Dorado		(530) 644-2324
Northern El Dorado	Dave Delongchamp	(530) 333-2304
Los Angeles	Walter Sakai	(310) 434-4702
Mendocino & Lake	Janet King	(707) 462-3277
Orange	Christine Mukai	
Placer & northern Sacramento	Dee Warenycia	(916) 786-5056
San Francisco Peninsula	Howard Rathlesberger	(650) 367-1296
Solano & Yolo	Melanie Truan	(530) 750-3825
Sutter & Yuba	Kevin Putman	(530) 755-1480
Ventura	Jan Wasserman	(805) 987-3928

birdsfly@innercite.com syasuda@fs.fed.us selkaijen@jps.net sakai_walter@smc.edu kingfarm@sonic.net cmukai@chambersgroupinc.com warbler5@aol.com Rathlesberger@email.msn.com mltruan@ucdavis.edu dputman@syix.com bandlady@west.net

*ALPHA CODES FOR COMMON CAVITY-NESTERS

ATFL=Ash-throated Flycatcher BNOW=Barn Owl
CBCH=Chesnut-backed Chickadee
HOSP=House Sparrow
EUST=European Starling
MOBL=Mountain Bluebird
MOCH=Mountain Chickadee
TRES=Tree Swallow
VGSW=Violet-green Swallow
WEBL=Western Bluebird
WBNU=White-breasted Nuthatch
WODU=Wood Duck

Anyone desiring to band who can commit 2 or 3 days per week is encouraged to contact Hatch Graham.

Used nests needed

Blowfly researcher seeks assistance

Dr. Terry Whitworth, an entomologist from Washington State, who is studying bird nest blowflies, has contacted us again this year to ask for help in obtaining bird nests. He is coauthor of the book, *Bird Blowflies in North America* by C.W.Sabrosky, G.F.Bennett, & T.L.Whitworth, 1989, Smithsonian Institute Press, Wash. DC, 312 pp.

Not to be confused with blowflies that feed on dead material, larvae of the bird blowfly genus *Protocalliphora* feed on the blood of nestling birds. These larvae pupate about the time nestlings fledge, and adult blowflies emerge shortly thereafter. There were 26 known species of this genus in North America, and Dr. Whitworth discovered 2 more from nests supplied him last year.

Because of our nestbox monitor-

ing, it is likely we can help in his research.

Collecting Nests

Nests from all species are needed. In addition to those from your nestboxes, any found in trees, or from ground-nesters, etc., can be used.

Collect only inactive, used nests, as soon after fledging as possible.

Don't bother with nests abandoned if nestlings weren't present for a while. They won't have blowflies.

If you don't see evidence of blowflies, don't assume they aren't there. Send them anyway. (Your editor sent in some nests with the bald assertion his nests were blowfly-free. Whitworth found over 50 pupae in one of them.)

Procedure

Put the nest in a 1-gallon ziptop bag firmly sealed.

With a marking pen, write your

nestbox number on the bag.

On a separate sheet of paper, give your name, address (including county, state and zip), e-mail, if any, and phone number. Then, list your bags by: number, bird species (if known), nearest town (if not your home address), fledging date (estimate okay), number fledged, and any notes, such as dead birds present, etc.

While gathering a collection, keep the nests out of the hot sun but don't freeze. Don't worry if adult flies emerge. You may wish to place all the zipped bags into a larger garbage bag, if you fear adults may escape.

Place your collected nests and identification in a cardboard box (no packing is necessary), and mail to:

Terry Whitworth, PhD 2533 Inter Ave, Puyallup, WA 98372 (253) 531-7925 email:WPCTWBUG@aol.com

ciated.

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California Bluebird Recovery Program's

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