

BLUEBIRDS FLY!

California Bluebird Recovery Program Newsletter

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www.cbrp.org

—Assisted by Mount Diablo Audubon Society — An affiliate of the North American Bluebird Society

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

OVERVIEW FOR 2020

Results for 2020 are about 20% lower than in previous years. This is not surprising as many monitors were not able to access their trails because of the pandemic. Also **Steve Simons'** (one of our largest contributors) results were not reported. The top producers and counties are similar to previous years. See the statewide summary article which is elsewhere in this issue for details (25 years of state reports are available at: <u>http://cbrp.org/documents/</u><u>results_25yr.pdf</u>).

The 2020 Annual report showing the detailed trail by trail, species by species results is on the CBRP web site at: <u>http://cbrp.org/annual_reports/ar2020.pdf</u> Reports were received from 24 counties, 127 monitors (170 in 2019) and 233 trails (304 in 2019). 4219 (5397 in 2019) boxes were installed on the reported trails and yielded some 16223 (21164 in 2019) fledglings of which 8994 (11716 in 2019) were Western Bluebirds and the remaining 7229 (9448 in 2019) were distributed among 19 other cavity nesting species.

Orange County, as usual, was the top producing county (by more than a factor of two) for the number of trails, nest tries, total fledglings and Western Bluebird fledglings. The top 10 counties were: Orange - 6152/4094 fledglings (Total/WEBL), Santa Clara -2583/897, Alameda - 1458/856, Los Angeles - 1175/1152, Contra Costa- 893/474, Yolo - 733/282, Riverside - 569/0, San Mateo - 487/271, Nevada - 481/375, and Placer - 341/162.

The top10 producers were: David McMichael (Orange, Riverside & San Bernardino) - 2302/163 fledglings (Total/WEBL), Lee Pauser (Santa Clara) - 1772/622, Irv Tiessen (Alameda) - 1359/811, Hanika Cook (Solano & Yolo) - 892/339, Christine Tischer (Orange) - 589/93, Susan Bulger (Los Angeles & Orange) - 573/568, Bill Ralph (Madera & Mariposa) - 452/64, Jerry Millett (Los Angeles) - 431/431, Karen Oba (Orange) - 378/378 and Jo-Ann Coller (Orange) - 347/334.

The table of state results (elsewhere in this issue) shows CBRP results for the first and most recent of the 25 years during which CBRP has been collecting data (1996-2020). The full 25 year results are on the CBRP web page. From 1996 thru 2006 trail-by-trail data were collected from handwritten worksheets, summarized by county coordinators and entered into a statewide spreadsheet. From 2007 thru 2011 box-by-box, trail-by-trail data were entered by monitors directly into a homegrown database. For the past nine years trail-by-trail data have been entered by monitors directly into a shared, on-line spreadsheet.

If you are willing to enter additional detail (box-by-box) with dates and detailed results, I strongly encourage you to participate in Cornell University's e-bird and/or Nestwatch programs. Data on the NestWatch site is of great scientific value and provides information for researchers all over the world. See the following links:

General information about the eBird program at Cornell: <u>http://ebird.org/content/ebird/</u> Nestwatch web site: http:// nestwatch.org/

> Information and an easy to use spreadsheet on the CBRP web site: NestWatch Bulk Upload Template Documentation: <u>https://goo.gl/yP9ZBV</u> NestWatch Bulk Upload Template: <u>https://goo.gl/6eQA9f</u>

BLUEBIRDS FLY



The Director's Chair

CBRP is in the process of revitalizing itself. **Don Yoder** founded our organization in 1995; this is our 25th year. We have a beautiful new web site, thanks to the efforts of **Tricia Jordan** (Santa Clara). Several of our board members and county coordinators retired this year. I want to thank **Dick Purvis** (Orange) and **Dave Cook** (Santa Clara) for their past contributions on the board. **Mike Azevedo** (Santa Clara) has joined the board and is already making a big difference. Our long-time editor, **Jim SemeIroth** (Orange), will be retiring as Editor and Board Member after this issue of BBF! He will be missed and I can't thank him enough for all he has done! Many thanks to the county coordinators who have retired and those remaining – you are the heart of our program.



The board is contacting all of the California Audubon Chapters to offer our support with their cavity nesting programs. We have a great deal to offer in the way of experience and can help in developing cavity nesting programs in more counties. Hopefully we will be able to add County Coordinators and monitors as well as to find new board members. We are creating training videos to help new monitors and will be making these available thru our web site; we now have a Youtube video channel for these and other videos.

2020 has been a very different year for CBRP. The Covid-19 pandemic and the loss of one of our major contributors, **Steve Simons** (See article in the Summer 2020 version of BBF!, Volume 26, Number 1) resulted in a 20% reduction in results. Hopefully 2021 will be a much better year for all of us.

Thanks to all of you who entered your 2020 results on-line. We used Google Drive again for on -line, shared data collection with few problems. I continue to look for a better/simpler way to collect data but have not found one.

The 2020 Annual Report and this newsletter are available in full color for viewing and/or downloading on our web site at <u>http://www.cbrp.org/annual_reports/2020ar.pdf/</u> and <u>https://www.cbrp.org/wp-content/uploads/2020/07/v27no1.pdf</u>, respectively. Several articles summarizing the 2020 results will be found in this issue of *Bluebirds Fly!*. Note that this and previous newsletters and annual reports as well as updated state results (25 year history, box-bybox and trail-by-trail data) are also available on our web site. Link to <u>http://www.cbrp.org</u> and

California Bluebird Recovery Program (CBRP) Board Members

Dick Blaine, Program Director — dick@theblaines.net

Georgette Howington, Asst. Program Director- ghbirdscape@gmail.com

Mike Azevedo, Member Geochelone@aol.com

Don Yoder, Founder (Deceased)

Jim Semelroth, Editor

look under "Program Results."

Special thanks to those of you who made donations to CBRP in 2020 (amounting to \$889 in 2H 2020 and \$2069 for the year) - see the 2^{nd} half 2020 donor list elsewhere in this issue. Donations cover the cost of printing and mailing the newsletter. I am reluctant to ask for dues and prefer to encourage donations. If donations decline from present levels we will revert to on-line newsletters only. Following your name on the mailing label for this issue of *Bluebirds Fly*! are two numbers. The first is the date of your most recent contribution in the form yyyymm and the second is the amount in the form \$\$\$. If these fields are blank or zero then you have not made a contribution in the past three years. My practice is to remove monitors/contributors from the contact list after three years with no activity.

I want to encourage monitors to contribute to and participate in Cornell University's Nest-Watch Progam using their web site or the bulk upload template (see link below) so as 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.

The link to the NestWatch web site is: <u>http://www.nestwatch.org</u>.

The link to the bulk upload documentation is: <u>https://goo.gl/PqHXiX</u> and

The link to the bulk upload template is: <u>https://goo.gl/6eQA9f</u> (send the completed template to me and I will make the arrangements with NestWatch.)

Remember to get ready for the 2021 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 2021 birding and stay well.

Dick Blaine - dick@theblaines.net

About the California Bluebird Recovery Program Founder - Don Yoder; Emeritus - Hatch Graham

Our Mission	Learn More
Enlist current bluebirders and recruit others who will help reestablish bluebirds to their normal habitat	To learn more about the California Bluebird Recovery Program and other cavity nester conservation programs, visit the below web sites:
• Locate preferred habitat for the placement of	http://www.cbrp.org
nestboxes suitable for bluebirds	http://www.nabluebirdsociety.org
• Secure monitors to care for the boxes and keep	http://www.socalbluebirds.org
systematic records of the development of young birds during the nesting season	http://www.sialis.org
 Record and analyze all annual summaries of nestbox records 	If you are looking for a mentor, start by contacting the county coordinator in your county listed on page 12. You can also contact Dick Blaine (dick@theblaines.net).
Provide a forum (newsletter) through which fel- low trail monitors can exchange information and secure help in solving problems encountered in the field.	Please consider supporting our efforts. There is a donation form on the back page of this newsletter. Your contribu- tion is tax-deductible and goes a long way in helping us conserve the bluebird population in California.

EGGSHELL CONSUMPTION IN DIFFERENT REPRODUCTIVE STAGES AND BROODS OF THE WESTERN BLUEBIRD (*Sialia mexicana*)

By Lara Tseng (13 years old) Member, Southern California Bluebird Club

For my 2020 research project, I decided to study Western Bluebirds (WEBL) nesting in boxes in Orange County, CA, to determine if the breeding adults will consume sterilized, crushed eggshells as a source of calcium during the breeding season. It is generally understood that calcium is important to the breeding success of birds (Reynolds et al., 2004), and insufficient calcium can have adverse effects such as reducing eggshell thickness, clutch size, and egg volume (Mänd et al. 2000, Johnson and Barclay 1996). Prior studies have shown that many songbirds will consume crushed eggshells during the nesting



season (Dhondt and Hochachka 2001), but I did not find the WEBL mentioned in the relevant literature. Since passerines do not store extra calcium in their medullary bones as some other birds do (Pahl et al. 1997, Prondvai and Stein 2014), and are known to consume calcium most heavily during the breeding season, it is reasonable to assume that the calcium is incorporated into their eggshells relatively quickly. Furthermore, because the normal diet of insectivorous birds does not include sufficient calcium for egg-laying (Graveland and Van Gijzen 1994), I hypothesized that, 1.) most eggshell consumption by WEBL would take place before and during egg-laying; and, 2.) more consumption would be seen during the first brood because the clutch size of first broods (4.94 eggs) is usually significantly larger than second brood clutches (4.06 eggs),(Guinan et al. 2020). Therefore, more eggs would require more calcium consumption for eggshell formation.

In 2019 I had already collected nesting data for the Southern California Bluebird Club (SCBC) at a city park in Mission Viejo, California, so I presented my project to the club to request their support. About a dozen volunteers committed to collect data from 64 nest boxes in backyards, golf courses, and public parks. The SCBC generously granted me \$500 to fund project costs. I would also like to acknowledge one of my long-time mentors, **Gillian Martin**, Director of CCI (Cavity Conservation Initiative) and co-leader of the SCBC, who has provided a wealth of knowledge about bluebird biology and cavity-nesting birds.

In my study, monitors provided sterilized chicken eggshells in a small removable container affixed to the top of each box with Velcro. The container held 5 grams of eggshell and was covered except for a small hole in the lid to allow the bluebirds to access the eggshells. Monitors checked the containers at weekly intervals using the same model of digital scale (capable of measuring to 0.01 g) to determine how much eggshells were consumed by the bluebird. Weekly checks also recorded the status of the nest so that eggshell consumption could be indexed in relation to stages of the breeding cycle.

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While monitoring one of the four boxes from which I collected data, I observed a female pecking and swallowing eggshells. Three other monitors also observed this behavior by females. However, this was a difficult behavior to observe because monitoring most boxes is a short process with the exception of backyard boxes.

I received data from 49 boxes, which collectively produced 56 clutches and fledged 196 young. I ran a statistical analysis on my project using MATLAB with the help of **Ashley Peterson**, a PhD candidate from the McHenry Lab at UCI. The analysis showed that brood sequence had little to no effect on consumption but that reproductive stage had a large effect on consumption. It also showed that there was high individual variation among consumption in different birds.

Statistical analysis and more detailed data analysis showed that reproductive stage had a greater effect on consumption than brood sequence. Contrary to my hypothesis that consumption would be greater in the first brood, there was little variance in consumption between broods. This might have been because bluebirds had less time to forage for calcium during the second brood because fledglings were still begging to be fed, and there were only about 5-14 days between first and second broods. There was variation, however, in the consumption of eggshells as determined by the weight of shells among bluebird boxes. This may be due to the experience of the pair in locating sources. Or it may be due to the locality of the nest box, which may influence the availability of other calcium sources.

Pairs of bluebirds at thirteen boxes consumed less than 1 g of eggshells, eleven consumed 1 to 2.5 g of eggshells, and thirty consumed more than 2.5 grams in the entire period of data collection. This suggests that individuals may use different strategies for locating and consuming calcium. Further study with a larger sample size is needed to see which, if any, is a more successful strategy. My hypothesis that consumption would be greater before and during egg laying was partially supported. Greatest consumption was seen during nest building, egg laying, and incubation. Consumption during nest building was likely in preparation of egg laying. Birds consuming calcium during egg laying were likely replenishing their calcium supply since the last egg was laid, or preparing for the next. Consumption during incubation was likely consumption to recover from egg laying.

The time and effort required for this project was much greater than I anticipated. A lot of patience and perseverance was needed. The pandemic required me to find new ways of communicating with volunteers, and of ensuring quality data collection. I learned to put aside biases, and to objectively critique all aspects of my project. I have acquired new skills such as statistical analysis, writing clearly and concisely, and how to cite publications. Additionally, I learned the importance of thorough and systematic literature reviews, providing citations to back up specific claims, and making sure assumptions are not stated as fact. My interest in the topic of songbird breeding biology was increased as a result of my research, and so was my appreciation of the complexity of the topic. Problems posed by mentors and reviewers were sometimes tough, but very beneficial in the long run. I feel I have grown as an aspiring scientist and conservationist, and I am grateful to have my project published.

Lara Tseng

BLUEBIRDS FLY! EGGSHELL CONSUMPTION PAGE 6

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Graveland, J., and T. Van Gijzen. 1994. Arthropods and seeds are not sufficient as calcium sources for shell formation and skeletal growth in passerines. *Ardea* 55:299-314.

Guinan, J. A., P.A. Gowaty, and E.K. Eltzroth. 2020. Western Bluebird (*Sialia mexicana*), version 1.0. *In Birds of the World* (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA

Johnson, L. S., and R.M. Barclay. 1996. Effects of supplemental calcium on the reproductive output of a small passerine bird, the house wren (*Troglodytes aedon*). *Canadian Journal of Zoology* 74:278-282.

Mänd, R., V. Tilgar, and A. Leivits. 2000. Calcium, snails, and birds: a case study. Web Ecology 1:63-69.

Pahl, R., D.W. Winkler, J. Graveland, and B.W. Batterman. 1997. Songbirds do not create long-term stores of calcium in their legs prior to laying: results from high-resolution radiography. *Proceedings of the Royal Society of London. Series B: Biological Sciences*, 264(1379):239-244.

Prondvai, E., and K.H. Stein. 2014. Medullary bone-like tissue in the mandibular symphyses of a pterosaur suggests non-reproductive significance. *Scientific Reports* 4:6253.

Reynolds, S. J., R. Mänd, and V. Tilgar. 2004. Calcium supplementation of breeding birds: directions for future research. *Ibis* 146:601-614.

I am so pleased to publish in my final issue this research article by our star protégé of the Southern California Bluebird Club, thirteen-year old, Lara Tseng. Club members were so impressed with Lara in her two presentations at club meetings. Volunteers were eager to assist with the eggshell project, however the pandemic dashed some hopes to complete their monitoring. Lara was assisted especially by Gillian Martin, Bill Wallace, Steve Kaye, Dr. Tim Bradley and the dozen monitors who were able to fulfill their data collection and the mentors mentioned in Lara's report. Jim SemeIroth, Outgoing Editor.

Farewell

For eleven years I have edited *Bluebirds Fly!* having taken over for **Mike Spohn**. I have enjoyed working with **Dick Blaine** and never considered it a chore. Thanks to many contributors with articles and trail tales, we have received many positive comments from readers. Now, however, it is time for me to step aside as editor and turn it over to someone with new ideas and know-how. I have stepped down from monitoring and several roles in the Southern California Bluebird Club to enjoy retirement without worries about promoting organizations and deadlines. Thanks to all of you readers and contributors who made my job of cutting and pasting easy. Best wishes to the CBRP and the SCBC. Jim Semelroth



Diversity at the watering hole– Waxwings and Bluebirds I apologize for having lost the names of the photographer.

BLUEBIRDS FLY! TRAIL TALES

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I monitor a dozen Western Bluebird nest boxes near Grass Valley with the Sierra Foothills Audubon Society. On July 12, I found the birds are still at work, despite the upper-90s heat, with three nests active, including two that are second broods (eggs and brand-new hatchlings). I was intrigued to see first-brood helper siblings bringing food to two boxes; here's a photo of one young male helper. Researchers say that in Western Bluebirds (Sialia mexicana), it's more common for males than females to help their parents. (And helpers aren't common at all in Eastern Bluebirds, Sialia sialis.) Cornell Laboratory of Ornithology says, "Parent Western Bluebirds with helpers on average fledge one more chick than parents without helpers, and these chicks share many genes with the helpers." It was entertaining to watch one young male bluebird arrive at a nest box with a caterpillar for its



mother, who was incubating his siblings' eggs. When he discovered she was not at home, he swallowed the caterpillar. Teenagers! Sylvia Wright (Nevada Co)

We had one brood this year. They began building the nest exactly 2 calendar years from the time that the first pair nested in our box, March 28th ! I watched all four chicks fledge. One fledged mid afternoon May 23 and the other three fledged on the morning of May 24th. The last nestling to fledge was very hesitant and the Mom patiently chirped to the chick from the telephone wire across from the nesting box. I was fortunate to capture this flight from the box with my iPhone. They all flew back to our neighbors plum tree, just as they did in 2018.

I saw the 4 fledges on the telephone wire in the evening of Sept 7th. There appeared to be 1 male and 3 females. I had back surgery Sept 28th so have not been out in the evening until recently, so have not seen them since September, but our neighbor has seen the male using his birdbath. They are always sighted in the evening, hunting for insects and bathing. We think the male of this year's pair might have been one of the chicks from the 2018 broods.

We have one nesting box on our urban 3700 foot lot and it is up right under the eve of our porch, next to our kitchen window. There were four eggs laid with four fledging.

We had an interesting experience with the male of this mated pair. On occasion, when we would walk our dog at dusk (after the chicks had been fed), we would get half way down our block and notice he was with us, above us on the telephone lines and he would go along (flying from wire to wire) with us for a few blocks, then he would wait, and then come back with us. At first we thought it was a coincidence, but then it happened a number of times and it also happened a few times after the chicks had fledged. These pairs we have had in the

nesting box have gotten quite used to us and have watched me shoo off crows and jays from the telephone poles near by....

Two years ago I had another interesting experience with a juvenile bluebird that had fledged from our nesting box.. One early January morning, after two broods had fledged from our box in the summer, I opened the front door to look out the front door screen to see what the weather was like. It was very dense ground fog and when I looked up on the telephone wire there were three juvenile bluebirds from summer's brood. One of the young males, came down and fluttered in front of the screen door, not assertive or aggressive but more like he was curious, then went back up on the line and did it one more time before rejoining the others and remaining there. Marilyn Petch (Contra Costa Co.)



This watercolor image is the male that accompanied us on our evening walks this summer.

BLUEBIRDS FLY! TRAIL TALES

A new nest was built over an old nest during the initial check of the Sycamore Park box on April 11, 2020. Four unbanded chicks were found dead in the older nest. This nest only attempted 1 nest in 2019 and only fledged 1 of 4 on June 17, 2019 and no activity was noted on subsequent visits on July 9 and July 18, 2019. Therefore, the dead found were either a very late 2019 nesting attempt or a very early 2020 nesting attempt. Either way, it has been included in this year's numbers. **Christine Tischler**

Poor attempts at second nest tries possibly due to an increase in outdoor recreational activities due toCovid-19. Several adjacent trees with nest boxes had evidence of rope left over from birthday pinatas as well. One observation was that there was a decrease in easter grass within nesting material early in the season, possibly due to park closure during quarentine. Lastly, one box had rats nesting 2x given the increase in park use in the later half of the season, despite cleaning and spraying out the box. **Susanna Guerrero**

WBNU nestlings killed by gopher snake, one OATI nest attacked by ants, one ATFL nest attacked by mites, one WEBL nest's eggs disappeared and the pair re-nested. Larry Jordan

Brood 2 lost 2-3 chicks to predator (Coopers hawk) Brood 3 was with a different and younger nesting pair. **Mark Havens**

Covid drove more people into the outdoors making the park too busy; I suspected people were tampering with the boxes. I think the parents were frightened off. **Julie Mello**

Two boxes on this trail overtaken by bees; 1 box had dead male and female inside with no sign of injuries; possible poisoning? One box had rodent droppings underneath the used nest; box is close to a trash can--will move box into the interior of the park Monitoring this location very difficult during COVID conditions. Data incomplete. **Valerie Sinex**

Could not access park after COVID shutdown but birds were seen still active in neighborhood. Park visitor informed us she had seen one of the pair dead. Could not get back in the park after COVID shutdown. Terry & Mike Powell

A new nest was built over an old nest during the initial check of the Sycamore Park box on April 11, 2020. Four unbanded chicks were found dead in the older nest. This nest only attempted 1 nest in 2019 and only fledged 1 of 4 on June 17, 2019 and no activity was noted on subsequent visits on July 9 and July 18, 2019. Therefore, the dead found were either a very late 2019 nesting attempt or a very early 2020 nesting attempt. Either way, it has been included in this year's numbers. **Pat Beck**

WBNU nestlings killed by gopher snake, one OATI nest attacked by ants, one ATFL nest attacked by mites, one WEBL nest's eggs disappeared and the pair re-nested. Larry Jordan

All activities at the reserve were suspended on 5/14 by Fish and Wildlife due to Covid19 concerns. The Gavilan Campus was closed on 3/16 to all entry due to Covid19 concerns. Nest monitoring was suspended on 3/24 due to Covid19 concerns. **David Stocks**

California Bluebird Recovery	Program, 25 Year	Results All Spe	ecies Page 9
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2020 NOTES	F/H	F/E	F/T	F/N	Fledged (F)	H/E	H/T	H/N	Chicks (H)	E/T	E/N	Eggs (E)	Τ/Ν	Tries (T)	Boxes (N)	Species	Reporters	Counties
			3.3	2.1	5077								0.6	1526	2400	16	169	1996 21
Results are about 20% less than previous years as Covid-19 pandemic resulted in closure of	1.0	0.8	4.3	3.6	17888	0.8	4.3	3.5	18414	4.5	4.5	22879	0.8	4177	5139	19	148	2005 25
out 20	0.9	0.7	4.2	4.4	17330	0.8	4.5	4.7	18707	5.8	6.1	24093	1.1	4142	3942	20	152	2006 19
% less	0.9	0.7	5.1	3.5	14188	0.8	5.7	3.9	15889	7.4	5.1	20729	0.7	2789	4032	20	128	2007 22
than pi	0.9	0.7	3.8	3.8	14222	0.8	4.4	4.4	16475	5.4	5.4	20162	1.0	3704	3739	18	163	2008 23
revious	0.9	0.7	5.4	3.8	15781	0.8	6.1	4.3	17967	7.4	5.2	21762	0.7	2937	4189	17	174	2009 19
; years	0.9	0.7	5.3	3.9	20737	0.8	5.8	4.4	23014	7.3	5.5	28751	0.7	3939	5274	23	192	2010 24
as Cov	0.9	0.7	6.3	3.7	20323	0.8	7.1	4.2	22794	8.9	5.2	28386	0.6	3202	5426	26	168	2011 24
id-19 I	0.9	0.7	3.6	3.9	20477	0.8	4.0	4.3	22747	5.0	5.4	28423	1.1	5715	5293	21	170	2012 20
panden	0.9	0.7	3.5	3.5	19754	0.8	3.9	4.0	22489	4.9	4.9	27876	1.0	5715	5664	24	169	2013 20
nic rest	0.9	0.7	3.3	3.4	17056	0.8	3.8	3.8	19481	4.7	4.7	24058	1.0	5096	5067	21	157	2014 20
ulted in	0.9	0.7	3.3	3.2	18144	0.8	3.8	3.8	21234	4.8	4.7	26262	1.0	5526	5601	20	160	2015 24
closur	0.9	0.7	3.5	3.4	19873	0.8	4.0	3.9	22872	4.8	4.7	27509	1.0	5742	5793	21	178	2016 21
e of m	0.9	0.7	3.4	3.8	20246 1	0.8	3.8	4.3	22998 2	4.6	5.1	27395 2	1.1	6007	5333	20	169	2017 2 20
many trails	0.9	0.7	3.1	3.7	19731	0.8	3.6	4.3	22840	4.3	5.1	27097	1.2	6291	5358	19	172	2018 20
ils	0.9	0.7	3.1	3.9	21164	0.8	3.6	4.6	24624	4.3	5.4	29012	1.3	6826	5397	19	170	2019 24
	0.9	0.8	3.4	3.8	16223	0.8	3.8	4.3	18122	4.5	5.1	21491	1.1	4770	4218	19	127	2020 24
	0.9	0.7	3.9	3.5	16271	0.8	4.5	4.2	19788	5.5	5.2	24313	0.9	4263	4593	20	181	Aver- age* 25

BLUEBIRDS FLY!

CBRP 2020 DONORS

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First	Last	County
Bill	Allison	Amador
Hans & Sue	Apps-Carter	San Mateo
Michael & Marybeth	Arago	Mendocino
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With much gratitude, we accept these donations.

To donate to the CBRP, please use the form or information on the last page of this newsletter.

BLUEBIRDS FLY! COUNTY COORDINATORS PAGE 11

County	First	Last	City	Home#	Email
Alameda	Georgette	Howington	Martinez	925-686-4372	ghbirdscape@gmail.com
Contra Costa	Georgette	Howington	Martinez	925-686-4372	ghbirdscape@gmail.com
Lake	Donna	Mackiewicz	Clearlake	405-227-6020	donnam- mackiewicz@gmail.com
Madera	Bill	Ralph	Raymond	(209) 966-2260	Bill@dryadranch.com
Mendocino	Michael & Marybeth	Arago	Fort Bragg	707-962-0724	mmbarago@mcn.org woodswom-
Nevada	Kate	Brennan	Grass Valley	530-268-1682	an55@goskywest.com
Placer	Heath	Wakelee	Granite Bay	916 797-4536	
Riverside	Erin	Snyder	Riverside	951-683-7691 x 207	snyder@rcrcd.org
Sacramento	Vicki	Butler	Sacramento	(916) 448-8030	butlerrowe@sbcglobal.net
San Bernardino	Glen	Chappell	Redlands San Francis-	909-794-3470	
San Francisco	Michelle	Unger	co		ungerlings@gmail.com
San Louis Obispo	Paul & Judy	Burkhardt	Creston	805 438-4491	tinhornranch@sbcglobal.net
San Mateo	Beverly	Cronin	Menlo Park	650-394-5147	beverly.cronin@gmail.com
Santa Clara	Mike	Azevedo	Fremont	510-792-4632	Geochelone@aol.com
Shasta	Larry	Jordan	Oak Run	530-472-3131	larrytech@frontiernet.net
Solano/Yolo	Melanie	Truan	Davis	530-754-4975	mltruan@ucdavis.edu
Sonoma	Mike	Crumly	Sonoma	707 996-7256	mikec@freixenetusa.com



Bluebird Coordinators Meeting

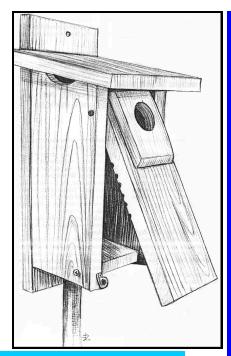
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