

# REVIEW OF THE 109<sup>TH</sup> CHRISTMAS BIRD COUNT IN THE CENTRAL VALLEY OF CALIFORNIA: DECEMBER 2008-JANUARY 2009

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## INTRODUCTION

This is the third in an ongoing annual series reviewing the results of the Central Valley (CV) Christmas Bird Counts (CBC). This series notes the highlights of the CBC season and examines some of the interesting trends the data suggest.

Data used for this series come from 24 CBC circles within or overlapping the CV (Figure 1). Of these, 23 were conducted during Count Year (CY) 109, with only Red Bluff missing (for the third consecutive year). I am hopeful that someone will step forward to re-activate this count. Prior to CY 107, Red Bluff had provided 31 years of continuous data collection. The real value of the CBC is the unique record of bird abundance and diversity it provides and long-term counts like Red Bluff are the backbone of this record.

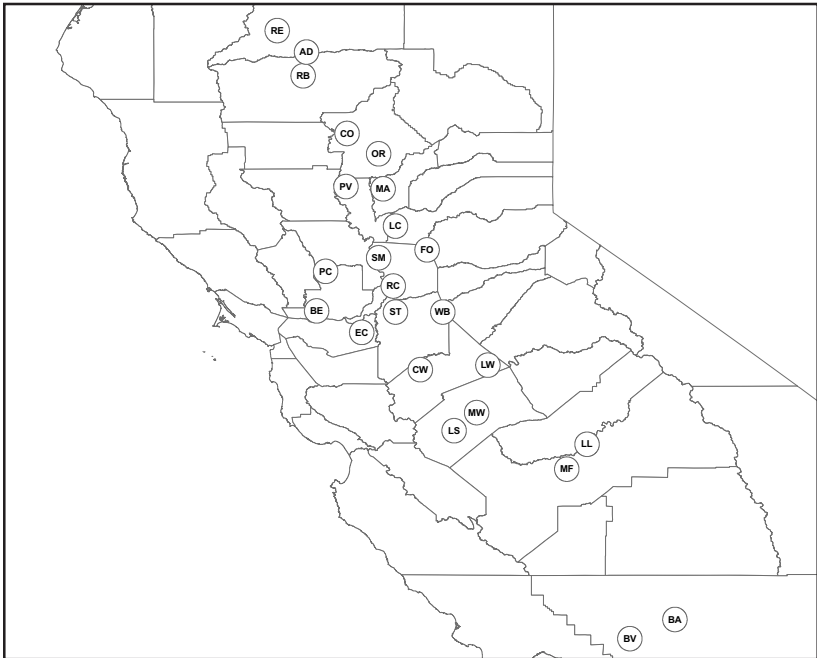
I used only data obtained from the actual CBC count day, omitting records reported as occurring within the “Count Week.” Data were obtained from the National Audubon Society’s online data base (<http://www.audubon.org/bird/cbc/index.html>) and supplemented with data from individual compilers when needed.

## RESULTS AND DISCUSSION

### *High Species Counts*

Tracking which count circles rank highest each year is certainly more “game” than science. However, looking at areas that consistently record the highest numbers of certain species can produce a picture of relative abundance and diversity on a continental scale. Habitat conversions due to agriculture, water diversions, and urbanization have occurred on a stunning scale in the CV. The fact that CBCs in our area continue to record tremendous numbers of individuals of a wide variety of species is a testament to the richness of CV habitats in winter, the adaptability of the birds, and the impacts of even modest conservation measures. To put this into perspective, one can look at results of the nearly 2000 CBCs conducted throughout Canada and the continental United States (US). While CV circles represent just over 1% of all the circles (1.4% in terms of total party hours), CV circles recorded the highest totals for over 3% (20) of all species recorded during all Canada/US counts.

Figure 1. Map of the 24 CV CBC circles used. From north to south, they are: Redding, Anderson, Red Bluff, Chico, Oroville, Peace Valley, Marysville, Lincoln, Folsom, Sacramento, Putah Creek, Rio Cosumnes, Benicia, Stockton, Wallace-Bellota, East Contra Costa, Caswell-Westley, La Grange-Waterford, Merced NWR, Los Banos, Lost Lake-Fresno, Milburn-Fresno, Bakersfield, and Buena Vista-Kern.



The CV's complex of federal, state, and private wildlife refuges and the extensive areas of flooded rice in winter consistently produce the highest counts for many waterfowl species. For CY 109, the CV recorded the second highest totals ever tallied on a single count for Ross's Goose (*Chen rossii*) and Cackling Goose (*Branta hutchinsii*). The Merced NWR count reported nearly 33,000 Ross's Geese, more than five times the next highest count (Roswell, NM), but still well short of the record 65,000 from Peace Valley in CY 83. Caswell-Westley's 37,222 Cackling Geese led all counts but Corvallis, OR (40,463, the highest ever for this species). Caswell-Westley has finished first or second every year since Cackling Goose was granted full species status. CV counts Rio Cosumnes, Marysville, Sacramento, and Merced NWR swept positions 2 through 5 for Greater White-fronted Goose (*Anser albifrons*), though no count could come within half of the 82,390 recorded by Quivira NWR, KS. Stockton (16,451) and Marysville (7,337) finished third and fifth for Tundra Swan (*Cygnus columbianus*). Los Banos was alive with dabbling ducks, recording the highest counts for Northern Shoveler (*Anas clypeata*) (29,151) and Green-winged Teal (*Anas crecca*) (14,259) and the

second highest for Gadwall (*Anas strepera*) (14,062). Los Banos was also the only CV count to take a top-five spot for any diving duck, reporting the second highest total for Ruddy Duck (*Oxyura jamaicensis*) (9,078).

For the 11th consecutive year, Sacramento led all counts for Cinnamon Teal (*Anas cyanoptera*). Sacramento's total of 2836 was the highest ever recorded on any CBC and the first count over 2000 since CY 104 (also Sacramento). To put the Sacramento circle's relative abundance of Cinnamon Teal into perspective, the next nearest count (Merced NWR) reported only 268. Sacramento's total accounts for just over half of all Cinnamon Teal counted on all CBCs (including Mexico and Central America). Although most Cinnamon Teal winter in Mexico where there are few CBCs, the birds tallied in the Sacramento circle in CY 109 may represent approximately 1% of the total population for this species (Gammonley 1996). Sacramento also took the number 2 spots for Northern Shoveler (28,317) and Northern Pintail (*Anas acuta*) (28,192) and third place for Green-winged Teal (8,003). Marysville had the highest Northern Pintail total (33,156) and Peace Valley was third for pintail and fifth for shoveler. Benicia was third for Cinnamon Teal and Merced NWR was fourth for Green-winged Teal.

The dramatic increase in White-faced Ibis (*Plegadis chihi*) in the CV in recent years may be tempering. Numbers on CV counts have been relatively flat over the past two winters. Still, Marysville (4,065) and Los Banos (3,683) recorded the third and fourth highest totals this year. Sacramento was number one for Black-crowned Night-Heron (*Nycticorax nycticorax*) (1,452), as it has been for 7 of the past 11 years.

If one ignores the huge numbers of Bald Eagles (*Haliaeetus leucocephalus*) found on some counts in coastal British Columbia and Alaska, CV counts consistently report higher numbers of raptors than any other region of North America (Pandolfino 2006). CY 109 was no exception with CV counts taking first, second, fourth, and fifth places (Rio Cosumnes, Sacramento, Benicia, and Lincoln, respectively) for Red-tailed Hawk (*Buteo jamaicensis*); first, fourth and fifth for White-tailed Kite (*Elanus leucurus*) (Sacramento, Rio Cosumnes, and Benicia); fourth and fifth for Northern Harrier (*Circus cyaneus*) (Sacramento, Los Banos). Eight Prairie Falcons (*Falco mexicanus*) was enough for Lincoln and Marysville to tie for the third highest total. After failing to break into the top five for American Kestrel (*Falco sparverius*) for the past three years, this year CV counts took second and fifth (Lincoln, Sacramento). However, this result is not cause for celebration as numbers for this species across all CV counts continue to decline (0.65 kestrels per party hour for CY 109 being the second lowest in the past 33 years). As previously noted in this journal (Pandolfino 2006, Pandolfino 2008) and elsewhere (Bednarz et al. 1990, Sauer 2005), this species appears to be in long term, significant decline in California and across North America.

The Stockton CBC finished in second place for Sandhill Crane (*Grus canadensis*) (11,101). Benicia's 3 Black Rails (*Laterallus jamaicensis*) were

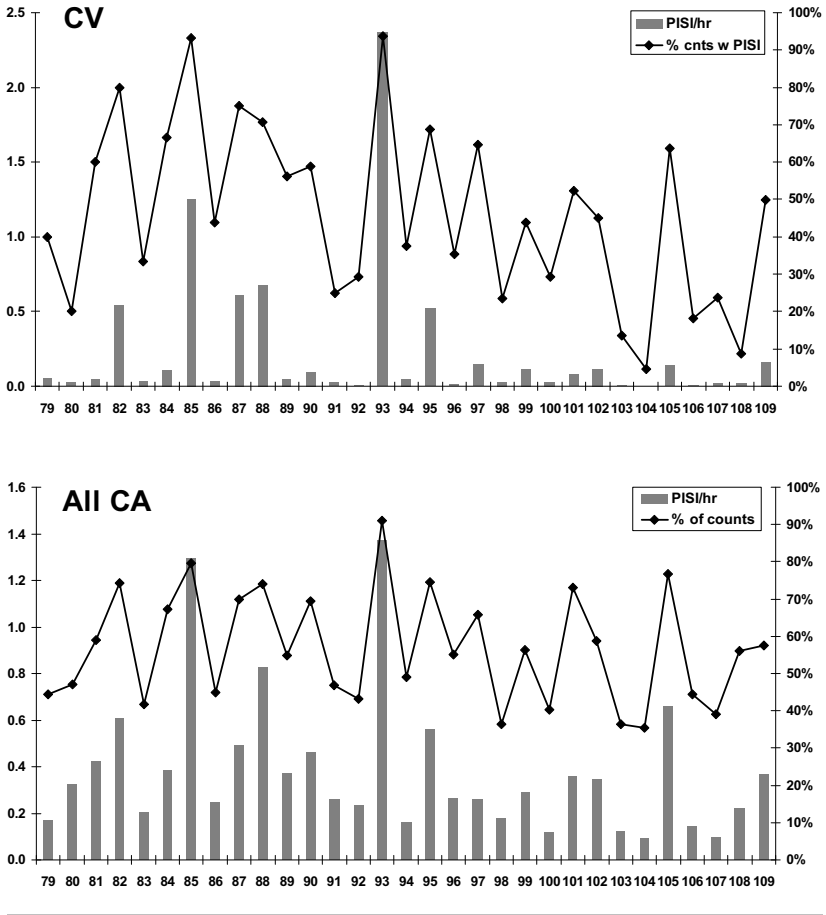
enough to tie for first with Martinez Lake-Yuma, AZ and Corpus Christi, TX. Benicia also recorded more Virginia Rails (*Rallus limicola*) (84) than any other count circle and had the fifth highest Sora (*Porzana carolina*) total. Kudos to all lovers of the noble coot, as Los Banos tallied 38,358 American Coots (*Fulica americana*) to finish second behind perennial champion, Guntersville, AL. And, really, what could be more fun than standing in a cold drizzle and counting thousands and thousands of coots? Finding Long-billed Curlews (*Numenius americanus*) in the CV in winter can be a feast-or-famine exercise, and this year only Rio Cosumnes enjoyed a 'feast' with 551 curlews enough to take third place.

This was our second straight big year for Lewis's Woodpecker (*Melanerpes lewis*), with numbers from CV counts even higher than CY 108 (more on this below). Besides Anderson, Marysville, and Folsom taking first, second and fourth, CV counts took 6 of the top 10 places. Putah Creek had the highest count for Nuttall's Woodpecker (*Picoides nuttallii*) (202), while places 2 through 4 were taken by Rio Cosumnes, Folsom, and Sacramento. If Sacramento counters could have found just one more Northern Flicker (*Colaptes auratus*), the CV would have again taken first place for three woodpecker species. However, the 427 flickers found in Bowie, MD just surpassed Sacramento's 426.

As usual, CV counts recorded the most Yellow-billed Magpies (*Pica nuttalli*) with Sacramento, Putah Creek, and Chico taking the top three places. Sacramento's total of 478 was still less than half the average count before the 2005 West Nile Virus outbreak (more on this below). Putah Creek had the third highest Western Scrub-Jay (*Aphelocoma californica*) total (693). Benicia and Los Banos took second and third for Marsh Wren (*Cistothorus palustris*) (174 and 130, respectively) and Folsom led all counts for both Oak Titmouse (*Baeolophus inornatus*) (642) and Western Bluebird (*Sialia mexicana*) (785). Putah Creek's 337 Hermit Thrushes (*Catharus guttatus*) was enough to take the top spot. I am not sure whether the 'low' European Starling (*Sturnus vulgaris*) total for Rio Cosumnes (200,000 vs. the 900,000 average for CY 107 and 108) says more about a local decline in this species or a case of starling fatigue among participants. In either case, Rio Cosumnes still finished third with Stockton taking fifth. Results of this year's count confirmed that winter is sparrow season in the CV, with Benicia's 2180 Golden-crowned Sparrows (*Zonotrichia atricapilla*) leading all counts, Lincoln finishing third for White-crowned Sparrow (*Zonotrichia leucophrys*) (2,907) and Rio Cosumnes fifth for Lincoln's Sparrow (*Melospiza lincolni*).

While we in the CV like to think of the Tricolored Blackbird (*Agelaius tricolor*) as our own (and the bulk of the population does breed here), large numbers winter elsewhere as shown by the fact that non-CV counts have recorded the largest numbers in 4 of the past 11 years (Yreka, CA twice and Santa Cruz, CA twice). This year Merced NWR's total of 2156 was second to Yreka's 3055. Lincoln took fourth place, just behind Panoche Valley, CA.

Figure 2. Numbers of Pine Siskins per party hour and percent of counts recording Pine Siskins based on CV CBCs (CV) and all California CBCs (All CA).



Although Sooner Lake, OK and Roswell, NM counts took the first two places for Brewer's Blackbird (*Euphagus cyanocephalus*), CV counts dominated overall with Rio Cosumnes, Lincoln, and Sacramento in third, fourth, and fifth places. CV counts took 7 of the top 10 places and CV counts tallied nearly one-quarter of all Brewer's Blackbird counted across the continent. However, the blackbird species for which CV counts really dominate is one that is not black: the Western Meadowlark (*Sturnella neglecta*). As in every year since its inception in CY 105, Lincoln had the highest total for this species (3081). Rio Cosumnes, Wallace-Bellota, Oroville, and Benicia rounded out the top five. CV counts occupied 9 of the top 10 places and 14 of the top 20, with CV circles accounting for 45% of all Western Meadowlarks.

The fact that Lincoln toppled Stockton from its traditional number one spot for House Finch (*Carpodacus mexicanus*) (2,414) as well as taking first place for Lesser Goldfinch (*Spinus psaltria*) (1,154), is probably more a testament to the small army of Lincoln feeder-watchers active on that count, rather than an unusually high local abundance of either species. Folsom and Oroville finished second and fourth for Lesser Goldfinch.

### *Irruptions, incursions, and colonizations*

Beginning in fall of 2008 and continuing into winter, Pine Siskins (*Spinus pinus*) were reported in unusual numbers across much of Northern California (Glover et al. 2009, Pandolfino et al. 2009). CV CBC data from this year confirm these anecdotal reports (Figure 2). Those who were birding in the 1980s and 90s remember well the much larger irruptions of this species that would occur from time to time, as dramatically demonstrated in Figure 2. Note that these Pine Siskin irruptions are widespread, with high counts in the CV correlated almost perfectly with peaks in statewide numbers. Although this species is well-known for staging massive winter irruptions from time to time across North America (Dawson 1997), California has not seen any large irruptions since the early 1990s. I am unaware of any data on whether the birds present during California's irruptions come from the population of siskins breeding in the Sierra, or from those breeding in the boreal forests of Canada and Alaska. If one of your visitors this winter whacked into a window (and you promptly double-bagged and froze it), let me know.

This was our second consecutive year of high Lewis's Woodpecker numbers in the CV and adjacent Sierra foothills (Figure 3). If the acorn crop is poor this fall, expect Lewis's Woodpecker to again become scarce for the 110th CBC. Varied Thrush (*Ixoreus naevius*) numbers were moderate and well down from the irruption of CY 107 (Figure 3).

Steller's Jays (*Cyanocitta stelleri*) staged an unusual incursion from their normal Sierra winter range into the eastern edges of the Sacramento Valley last fall and winter (Glover et al. 2009, Pandolfino et al. 2009). Once again, CBC data confirmed anecdotal reports as shown in Figure 4. CV count circles reporting unusual numbers of Steller's Jays were (from north to south) Redding, Chico, Oroville, Marysville, and Lincoln. Unlike the widespread irruptions noted above, this incursion was fairly localized, leading to speculation that it could be related to drought-related local shortages of food in the adjacent Sierra or to the effects of forest fires from the preceding summer and fall. Another possible influence could have been high reproductive success in spring 2008 resulting in population pressures to disperse.

Two species that appear to have come to the CV not to visit, but to stay, are Great-tailed Grackle (*Quiscalus mexicanus*) and Eurasian Collared-Dove (*Streptopelia decaocto*) (Hampton 2006). Figure 5 documents the coloni-

Figure 3. Numbers of Varied Thrush and Lewis's Woodpecker per party hour from CV CBCs. Data for Lewis's Woodpecker are from CBCs that recorded at least 10 Lewis's Woodpeckers on two or more occasions. Data for Varied Thrush are from all 24 CV CBCs except those which have recorded no Varied Thrushes.

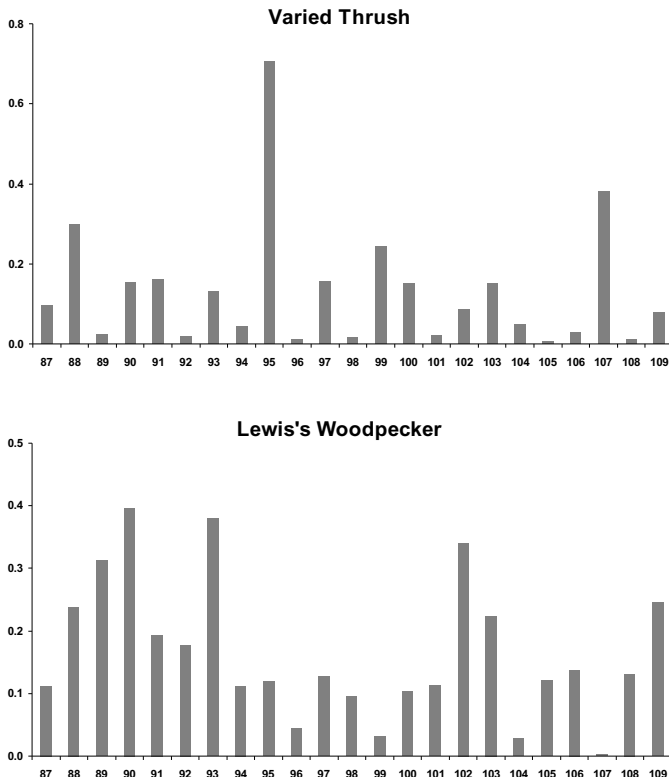


Figure 4. Numbers of Steller's Jays per party hour and percent of counts recording Steller's Jay based on CV CBCs. Data taken from the 15 CV CBCs which have recorded Steller's Jay at least once in the past 30 years.

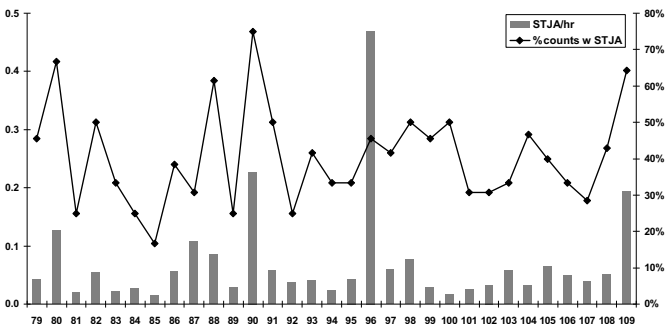
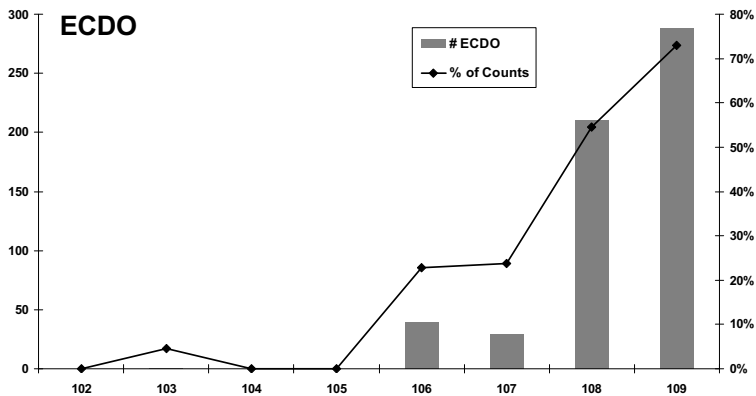
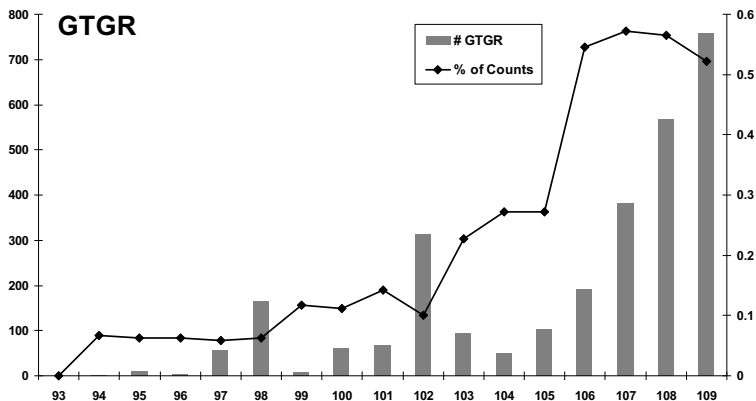


Figure 5. Numbers of Great-tailed Grackles and percent of CV counts recording Great-tailed Grackle (GTGR) and numbers of Eurasian Collared-Doves and percent of CV counts recording Eurasian Collared-Doves (ECDO).



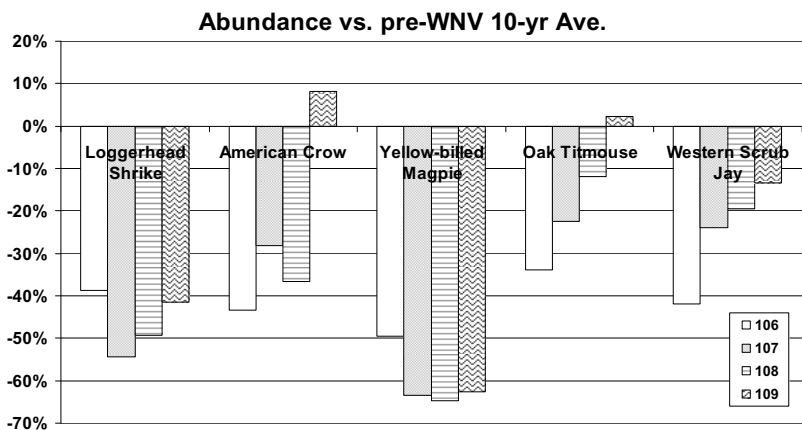
zation of the CV by the grackles and the more recent, but even more dramatic, invasion of the doves. While the grackle numbers continue to climb, their spread seems to have stalled, at least in terms of winter range, based on the lack of any further increases in percent of counts recording this species. However, the collared-doves show every indication that they may become common and widespread throughout the CV.

### West Nile Virus update

The 2005 outbreak of West Nile Virus (WNV) in the CV had an impact on populations of a number of species, including Yellow-billed Magpie, American Crow (*Corvus brachyrhynchos*), Western Scrub-Jay, Oak Titmouse, and Loggerhead Shrike (*Lanius ludovicianus*) (Airola et al. 2007, Crosbie et al. 2008, Pandolfino 2008, Smallwood and Nakamoto 2009). CBC



Figure 6. Abundance (birds per party hour) of five species for Count Years 106-109 compared to the ten-year average prior to the 2005 West Nile Virus outbreak (Count Years 94-105).



data (Figure 6) suggests that Oak Titmouse, American Crow, and Western Scrub-Jay may be recovering, while Yellow-billed Magpie and Loggerhead Shrike numbers remain well below pre-WNV levels.

Please feel free to contact me by email with comments or suggestions about this series. Let me know if you have particular species you would like me to review in future installments.

#### ACKNOWLEDGEMENTS

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Lewis's Woodpecker  
(*Melanerpes lewis*)  
near Corral Hollow,  
Alameda County,  
December 2008.

*photo by  
Craig Swolgaard*