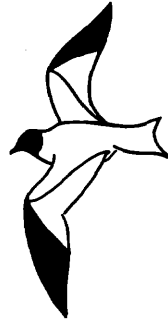


# CALIFORNIA BIRDS



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## A STUDY OF THE LE CONTE'S THRASHER

Jay M. Sheppard

The Le Conte's Thrasher (*Toxostoma lecontei*) can be identified by its moderately decurved bill, medium size (9.5 in.), and plain gray-brown colors. The dark black-brown tail contrasts with the upperparts and more so with the paler underparts. The Le Conte's has a pale buffy crissum while its nearest two relatives, the California (*T. redivivum*) and Crissal (*T. crissale*) Thrashers, are larger and darker and have cinnamon (California) or deep cinnamon-rufous (Crissal) crissums. Fortunately, over much of its range the Le Conte's Thrasher does not come into direct contact with these two related species. After the summer molt (complete for adults and incomplete for young of the year), the body plumage is considerably darker than that found from November to July. There is no sexual dimorphism beyond possible minute differences in size.

The Le Conte's Thrasher inhabits some of the hottest and driest portions of the American Southwest. Elevation records vary from -280 feet (Death Valley, Bennett's Well) to about 5,250 feet (Panamint Mountains, Harrisburg Flats). Its distribution is local in many areas, but it includes the west side of the San Joaquin Valley (Coalinga to Maricopa), all of the Mojave and Colorado Deserts from Lone Pine, California, east to Beaver Dam Wash, Utah; south along the east side of the Sierras and coast ranges into northeastern Baja California, and through western Arizona (Salome), the Gila River drainage (upstream to Florence and Picacho Peak), western Organ Pipe Cactus National Monument, and into northwestern Sonora to near Port Lobos. In Baja California the distribution extends over the mountains near Chapala, reaches the Pacific

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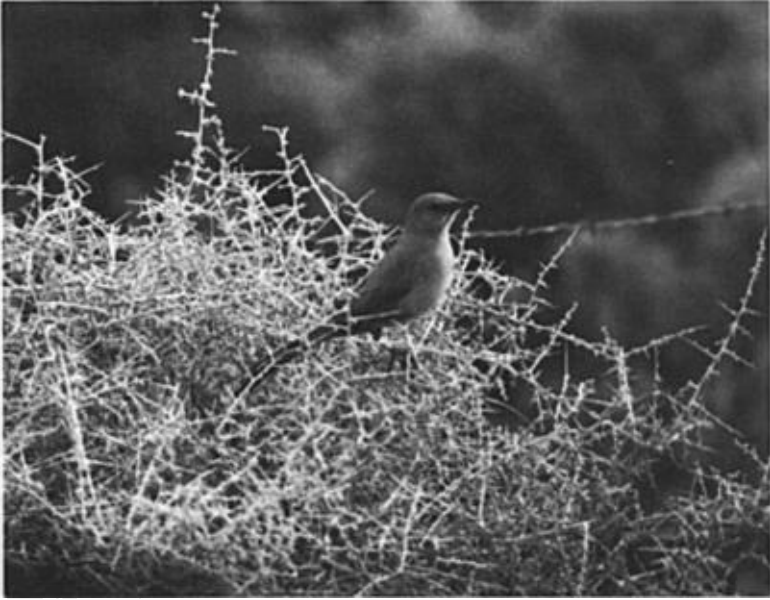
Ocean at Lat. 29° N., and continues southward to Lat. 26° N. Three subspecies are known: *T.I. lecontei* Lawrence, 1851 – most of the Mojave and Colorado Deserts of southwestern U. S. and northwestern Mexico; *T.I. arenicola* (Anthony, 1897) – Baja California from Lat. 30° N. to Lat. 26° N.; and *T.I. macmillanorum* Phillips, 1964 – San Joaquin Valley, California. The differences among these populations are subtle and require calipers and freshly molted specimens for identification.

The Le Conte's Thrasher prefers an open desert scrub habitat. The soil types most often associated with this bird are sandy and often alkaline. The local topography is rarely of high relief, but rather it is smooth with little or no slope. The two plant groups very frequently associated with this thrasher are the saltbushes (*Atriplex*) and chollas (*Opuntia*). These plants can furnish ideal nesting sites as well as shade and feeding areas even though their height only occasionally exceeds 4.5 feet. The thrasher is most easily found at any time of year by playing tape recorded calls in areas where old nests have been found. These nests (see description below) last for several years and, as several are made each year by a pair, there are usually 6-10 old nests in a territory. In my study area near Maricopa, there are some heavily utilized saltbushes along the washes. In a distance of only 250 yards some 14-18 old nests can be found. However, Maricopa is part of an area of very high density (10 pairs/sq. mi.) in comparison to the densities found throughout most of the species' range (usually 0 to 5 pairs/sq. mi.). Creosote (*Larrea*) occurs over much of these desert areas but is rarely utilized by the thrasher for nesting or shelter.

The Le Conte's Thrasher enjoys mild winters with very little snow but contends with very hot and dry summers. Air temperatures throughout the distribution of this species have ranged from -1° F (Victorville, Calif.) to 134° F (Death Valley), but the normal seasonal range is about 28° F to 110° F for most Le Conte's Thrashers. In the lower portions of the desert (below 1,000 feet) the exposed ground surface temperature reaches 150° in the mid-afternoons of July and August. Rainfall varies from 1.78 in./year to about 7.5 in./year over the deserts inhabited by this bird. The Le Conte's appears to be most common in areas with 5-6 in./year, but is frequently found in the sandy alluvial fans below desert mountains or edges of river bottoms and alkaline dry lakes.

This thrasher is not known to drink water even when it is available in a few restricted areas on the desert. It must therefore use some means of coping with the hot, arid summer which does not upset the individual's water balance. Studies at Maricopa seem to indicate that activity is curbed

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Color banded male atop a favored singing perch in study area.

*Photos by Jay M. Sheppard, except as noted.*

Photos taken at Maricopa, California unless otherwise indicated.

as the temperature reaches 95° – 100° F. During periods of higher temperatures the birds rarely move from one shady area to another but do remain quietly under a large shady shrub. Little or no feeding takes place during this time.

The food of the Le Conte's Thrasher consists almost wholly of arthropods. Scorpions, spiders, beetles, grasshoppers, and Lepidoptera larvae are the principal components of this diet. A few plant seeds and a small lizard (*Uta*) have been noted as well. Most of the food is obtained on the ground or by digging 2-3 inches into the substrate. This diet provides the only source of water for the thrasher. Upon several occasions I have seen this bird chasing grasshoppers in flight, but most of their attention is focused towards the ground. The young largely are fed Coleoptera and Lepidoptera larvae found in or near the root systems of the desert shrubs and grasses.

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A favorite nesting site for the Le Conte's Thrasher along a small arroyo. In the center of the photograph is a clump of large saltbushes used five times in three years by thrashers.



Typical Le Conte's Thrasher habitat on the west side of the San Joaquin Valley, California. Saltbushes of two species are the only dominant plants present. The clump of bushes 15 feet in front of the vehicle was utilized twice by the thrashers in two years.

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Le Conte's Thrasher at nest with a large beetle larva.

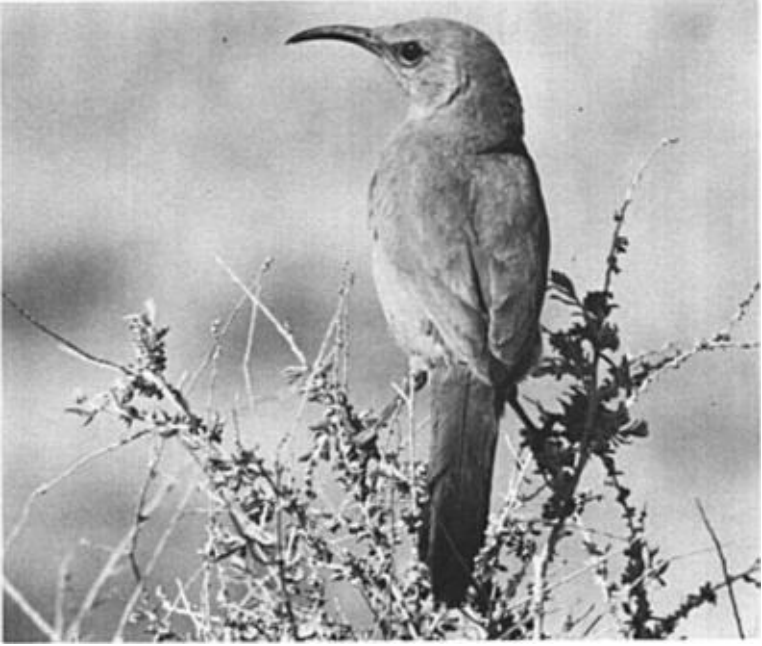
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The nesting season normally extends from late January (perhaps earlier in Mexico) to early June. Three broods are often attempted with clutches usually of 3-4 eggs. Color banding of 350 Le Conte's at Maricopa has demonstrated that the adults are probably mated for life, utilize about 100 acres over a year's period, and need about 15 acres per pair for nesting territories. Incubation (by both sexes) requires 14-20 days, hatching of four eggs takes 20-36 hours, fledging from the nest starts after another 14-18 days, and the young leave their parents' territory at about four weeks of age. Nests, large twig assemblages neatly placed in tight quarters within the shrub, are usually located 26-38 in. above the ground in a large dense bush or cactus. The cup separates this nest from most others found on the open desert as it is typically quite large (3 in. across, 2-2½ in. deep) with some sort of padded lining. Other thrashers stop at a fine grass lining, but this species adds a distinctive layer of soft plant fibers, leaves, and often old bits of paper.

The Le Conte's Thrasher is a very territorial species through much of the year. The male's territoriality wanes somewhat during the summer when he is molting and while there are many young wandering through the territory. This diminution of territoriality also occurs during the later stages of each nesting. Defense of the territory seems to reach a peak from early December to early February from the responses to the tape recorder in my studies.



One year old color-banded male Le Conte's Thrasher in typical singing posture.



Le Conte's Thrashers on singing perch (above) and at nest (below) in saltbush.  
*Photos by Herbert Clarke.*



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Le Conte's Thrasher at nest with Lepidoptera larva and another insect. Note the white lining typical of these nests, although more noticeable in this case.  
*Photo by Arnold Small.*

Most early observers commented on this bird's shyness and wariness. My own studies indicate that this varies with the season and individual. One pair at Maricopa would not allow me to approach closer than 100 yards to the nest, even in a car, during one nesting season. Two years later this very same pair permitted me to stand openly next to their nest as they came and departed. The nest could be easily touched from my position. Many thrashers have thoroughly inspected my camper from top to bottom in their attempts to locate the "intruder" singing from the tape recorder.

The song of the Le Conte's Thrasher is one of the finest I have heard. Although similar to the California and other thrashers, it can often be distinguished by a few high pitched wrenching notes interspaced from 10 to 30 seconds in the song. One sequence may last from 15 to 200 seconds. The song is literally a conglomeration of phrases of other birds' songs and calls and often modified into a very warbling mimid song. Phrases are rarely repeated in sequence but often occur at later times in



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Typical Mojave Desert habitat of the Le Conte's Thrasher. Note the scattered spacing of most of the vegetation. Creosote bush, cholla, and Joshua trees are the dominant plants. Beaver Dam Wash, Utah.



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one song. Individual thrashers mimic the common birds' sounds of their immediate area causing both individual and geographic variability. Singing usually takes place in the winter and spring and in the early morning and again just after sunset. The call notes are heard at any time. One is a clear whistled *whit*, rising at the end; other calls include a double-noted whistle *tu-weeep*. The singing and calling can be heard up to 1,000 yards away and are often uttered from the top of a low bush or cholla.

In general behavior, the Le Conte's Thrasher is quite definitely a terrestrial species. It will fly when pursued or to cross a deep arroyo, but generally it is found running swiftly among the desert shrubs along a small wash with its dark tail held high. Even when flying it rarely gets above the tops of the scattered vegetation. It will use a fence post for a perch, but rarely goes higher. This thrasher has always impressed me with its propensity for ducking behind vegetation even when it seemingly has not been alerted to my nearby presence.

In brief summary, the Le Conte's Thrasher has a seemingly typical passerine life, but it has become well adapted to the desert environment. Some of these adaptations include an extended breeding season with an early start and a behavior pattern evolved to cope with high summer temperatures and low humidity. The Le Conte's utilizes an open scrub desert frequently with a sandy, alkaline soil, saltbushes and/or chollas as some of the principal vegetation, and an annual precipitation of 5-6 in. Areas with irrigation or other disturbing influences are not areas where the thrasher will be found. Persons looking for this species should investigate the Taft-Maricopa area of the San Joaquin Valley, the areas around Mojave and Cima, California; the west slope of the Beaver Dam Mountains, Utah; and undisturbed portions of the Gila River bottoms near Phoenix, Arizona.

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