

## **LE CONTE'S THRASHER**

*Toxostoma lecontei*

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**Management Status:** Federal: BLM Sensitive  
California: Species of Special Concern (CDFG, 1998)

### **General Distribution:**

The Le Conte's Thrasher is a non-migratory bird that is endemic to four southwestern states and northwestern Mexico. Although widespread, they are uncommon to rare residents in desert scrub habitats. Two subspecies are recognized (AOU, 1957):

(1) The nominate *T. l. lecontei* occurs in California as far west as near Julian, Palm Springs, Banning, Antelope Valley, Walker Pass, and the San Joaquin Valley. To the north it ranges as far as the Owens Valley, Panamint Valley, and Death Valley. It ranges across southern Nevada to the Beaver Dam Mountains in the southwestern corner of Utah and southeastward to central and southern Arizona. It occurs south into Mexico on the west coast of Sonora to Port Lobos and on the east coast of Baja California to San Felipe Bay (Bent, 1948; AOU, 1998). Recent studies by Zink et al. (1997) conclude that the isolated population in the Taft-Maricopa area of the San Joaquin Valley is *T. l. lecontei*, and not a distinct subspecies (*T. l. macmillinorum*), as was suspected by Phillips (1965) and Browning (1990).

(2) *T. l. arenicola* is an isolated population on the west central coast of Baja California between latitudes 26° and 29° (Bent, 1948). It differs from *T. l. lecontei* by its darker coloration, shorter tail, and longer wing. Recent mitochondrial DNA studies indicate that this taxon may merit full species status (Zink et al., 1997).

### **Distribution in the West Mojave Planning Area:**

California contains a major portion of the range of the Le Conte's Thrasher, and the WMPA holds a large percentage of the California range. They are found in desert scrub throughout the WMPA. They occur in the Antelope Valley north to eastern Kern County, including California City, Ridgecrest and the Naval Air Weapons Station at China Lake. They also occur north into the Owens and Panamint valleys. In the southern portion of the WMPA, Le Conte's Thrashers occur widely throughout Joshua Tree National Park, and west along the northern base of the San Bernardino and San Gabriel mountains.

### **Natural History:**

The Le Conte's Thrasher is pale gray-brown on the upperparts and pale buff on the underparts. The long tail is dark brown to blackish, and contrasts with the pale body. The undertail coverts are buffy. The wings are short and rounded, typical of sedentary, terrestrial birds. The sexes are similar, weighing 55-75 g (19-26 ozs.) and are 10-11 in. (25.4-28 cm) in length (Sheppard, 1996; Pyle, 1997).

Within the range of the Le Conte's Thrasher in California, two other thrashers have long decurved or "sickle" bills, the California Thrasher (*T. redivivum*) and Crissal Thrasher (*T. crissale*). These three species share other traits: long tails and lack of breast spotting. While all three spend a great deal of time on the ground, the Le Conte's Thrasher is probably the most

terrestrial of the group, and its behavior is suggestive of a miniature roadrunner (Bent, 1948). Le Conte's Thrashers have pale-colored backs that contrast with their darker tails, while the backs and tails of the California and Crissal thrashers are dark brown. Le Conte's Thrasher has buffy undertail coverts; while California Thrasher is darker cinnamon brown, and Crissal Thrasher is dark chestnut brown. A fourth "sickle-billed" thrasher, the Curve-billed Thrasher (*T. curvirostre*), is sympatric with the Le Conte's Thrasher in southwestern Arizona and northwestern Mexico.

The habitat of these thrashers usually differs. The Le Conte's Thrasher prefers open desert with scattered shrubs and sandy and/or alkaline soil (Grinnell and Miller, 1944). The Crissal Thrasher takes cover in dense vegetation: mesquite thickets, canyon hillsides and along edges of irrigated fields. The California Thrasher prefers chaparral, brush, thickets, or riparian woodlands (Small, 1994). California and Le Conte's thrashers share range and breeding habitat in the higher deserts, especially where California juniper (*Juniperus californica*) occurs, such as Lost Horse Valley in Joshua Tree National Park (B.G. Prescott, pers. obs). Most of the area of overlap of California and Le Conte's thrashers occurs along the western edge of the Colorado and Mojave deserts; the California Thrasher does not occur broadly across these deserts, as does Le Conte's. An exception is along the Mojave River, where the California Thrasher occurs in riparian habitats north to at least Helendale (S.J. Myers, pers. comm.). Other thrashers that might be found in the California range of the Le Conte's Thrasher are Sage Thrasher (*Oreoscoptes montanus*) and Bendire's Thrasher (*Toxostoma bendirei*). Both are smaller, and have breast spots and pale eyes.

The Le Conte's Thrasher is monogamous, and both sexes share in building the nest and caring for the young. The nest typically is placed in a cactus, thorny shrub, or small tree, chosen to offer protection from predators and sun (Sheppard, 1996). The nest is a bulky mass of twigs and sticks and is lined with plant down, leaves, flowers, and sometimes human-made materials (Sheppard, 1996). It is typically placed about 2-4 ft (0.6-1.2 m) above ground but can be as high as 8 ft. (2.4 m) in a small tree, such as a smoke tree (*Psoralea argophylla*). A pair usually nests in the same area year after year and over a period of several years. Territories of 8.5-20 acres (3.5-8 ha) may be occupied (Sheppard, 1996). The territories of nesting pairs may be adjacent, especially in years when the food supply is adequate. On several occasions, active nests have been found within 200 yd. (180 m) of each other at Indian Cove and Panorama Heights in Joshua Tree National Park (B.G. Prescott, unpub. data). Although pairs are territorial during the nesting season, conflicts between adjacent pairs are rarely seen (Sheppard, 1996). The Le Conte's Thrasher usually does not occur in areas of monotypic creosote bush scrub, as it provides little cover or nesting sites. Creosote bush (*Larrea tridentata*) does not provide the structure needed for nest placement (B.G. Prescott, pers. obs.; S.J. Myers, pers. comm.).

The eggs are bluish green with a varying amount of brownish spotting, usually on the larger end. One egg is laid daily and incubation starts after the last egg is laid. While incubating, the female is often fed by the male, who provides most of the food to the young during the early brooding stage. The male assists in incubation. At night, the female is more likely to incubate. In most instances, if the nest is destroyed or preyed upon, the pair will begin a new nest. The incubation time is about 15 days, and the young fledge about 15 days later. The fledglings are able to run on the ground, but stay close to the nest for the first day or two. They begin to fly short distances about a week after leaving the nest. The young are fed insects, spiders, scorpions, pseudoscorpions, and small lizards (Sheppard, 1996).

Egg dates span nearly half the year, from 22 January to 24 June (Bent, 1948). The clutch size is from 2-5, and is commonly 3-4. When there is heavier than normal rainfall, food supply increases and 4-5 eggs may be laid. Nests with only 2 eggs have been reported, but they are not

common and in some cases may be the result of predation or some other disturbance (B.G. Prescott, pers. obs.). Sheppard (1996) reported 1-3 clutches per year at Maricopa, California, but 1 or 2 clutches is probably more common in the Mojave Desert (B.G. Prescott, pers. obs.). This may vary by location, food availability, and elevation. Birds that nest at elevations of 4200-4600 ft. (1280-1380 m), as at Lost Horse and Queen valleys of Joshua Tree National Park, usually do not nest until early to mid-May and thus have a shorter nesting season.

Other species that nest in the Le Conte's Thrasher's range may compete for food or nest sites. Some of the more common include Cactus Wren (*Campylorhynchus brunneicapillus*), Northern Mockingbird (*Mimus polyglottos*), House Finch (*Carpodacus mexicanus*), Black-throated Sparrow (*Amphispiza bilineata*), Loggerhead Shrike (*Lanius ludovicianus*), and Greater Roadrunner (*Geococcyx californianus*). Different species may share the same nesting shrub or tree. In the Pinto Basin of Joshua Tree National Park, an active Le Conte's Thrasher nest was found just 5 ft. (1.5 m) from an active Loggerhead Shrike nest in a smoke tree (B.G. Prescott, unpub. data).

Le Conte's Thrashers are very rarely parasitized by cowbirds. At least one case of parasitism by a Bronzed Cowbird (*Molothrus aeneus*), but none by the Brown-headed Cowbird (*Molothrus ater*), has been recorded (Friedmann 1963). In one experiment, 11 Brown-headed Cowbird eggs were placed in Le Conte's Thrasher nests in Maricopa, California, and were accepted (Sheppard, 1996).

Le Conte's Thrashers forage for much of their food by digging and probing in the soil. Other items are gleaned from vegetation or pursued on the ground. Their diet consists of arthropods, small lizards, small snakes, and seeds and fruits (Sheppard, 1996).

### **Habitat Requirements:**

The Le Conte's Thrasher inhabits desert flats, washes and alluvial fans with sandy and/or alkaline soil and scattered shrubs (Grinnell and Miller, 1944). The thrashers are rarely found on rocky soil, hillsides, in riparian vegetation or on agricultural lands. They are not found in urban or dense residential areas but may be found near scattered rural residences that abut suitable habitat. Access to water is not a factor since they obtain moisture from their diet. The plant species used for nesting varies with availability. Where it occurs, silver cholla (*Opuntia echinocarpa*) is the preferred nesting plant. It is not always the tallest or largest plant that is used, but one with the proper branching structure that provides the best protection from sun and predation. In the southwestern end of the San Joaquin Valley, in the Antelope Valley, at Harper Lake, and in portions of the Victor/Lucerne valleys, the only suitable plant for nesting is allscale (*Atriplex polycarpa*). Other species of saltbush found in the Le Conte's Thrashers range, such as shadscale (*A. confertifolia*), quailbush (*A. lentiformis*), desert holly (*A. hymenolytra*) and four-winged saltbush (*A. canescens*) may be occasionally used for nesting. Other plants used are pencil cholla (*Opuntia ramosissima*), smoke tree, blue palo verde (*Cercidium floridum*), ironwood (*Olneya tesota*), honey mesquite (*Prosopis glandulosa* var. *torreyana*), and Mojave yucca (*Yucca schidigera*). To a lesser degree jojoba (*Simmondsia chinensis*) and California juniper have been found as nest plants (B.G. Prescott, pers. obs.).

### **Population Status:**

The Le Conte's Thrasher has a relatively small worldwide range and its numbers are low for a passerine (Remsen, 1978). The species has declined in many areas of its range due to urban and agricultural development (Laudenslayer, et al., 1992). In California, notable areas of decline

include the San Joaquin, Coachella and Imperial valleys. Near Phoenix, Arizona, its range has been decreasing due to urban, residential and agricultural development (Phillips et al., 1964 ). In the WMPA, as cities and towns in the Antelope Valley, Mojave River Valley and the Morongo Basin continue to increase in size, the thrashers lose more and more habitat (B.G. Prescott, pers. obs.; S.J. Myers, pers. comm.). In undisturbed areas of its range the Le Conte's Thrasher populations appear to be stable. Population density estimates range from 6.4 pairs to less than 1 pair /mile<sup>2</sup> (2.5-0.4/km<sup>2</sup>) (Sheppard 1996). Le Conte's Thrasher is absent from some areas of seemingly suitable habitat (Remsen, 1978).

### **Threats Analysis:**

Loss of habitat throughout its range is the main threat to the Le Conte's Thrasher. Commercial, industrial, residential, and agricultural development all pose threats to the species. To a lesser degree, recreational activities may impact thrashers. In 1996, Sheppard reported finding a thrasher near Maricopa (San Joaquin Valley) that had been shot. Off-road vehicle use, especially in the nesting season, could be detrimental to the birds (Remsen, 1978). Fire has become a threat to habitats in the California deserts since the relatively recent invasion of non-native grasses. Formerly, the spacing of the desert scrub was sufficient to limit the spread of wildfires in the desert (J.W. Cornett, pers. comm.).

Due to limited access, it is hard to assess the impact of military operations on Le Conte's Thrasher at various bases in the WMPA. Since approximately 27% of the WMPA is military land, more study is needed to determine the effects of military activities on Le Conte's Thrashers. Le Conte's Thrashers are widespread in Joshua Tree National Park, and both the species and its habitat are protected in perpetuity. However, disturbances at park boundaries may impact Le Conte's Thrashers and other wildlife in the park. The proposed Eagle Mountain landfill, southeast of the WMPA, is projected to be one of the largest landfills in the world. The impacts to wildlife, including Le Conte's Thrasher, are uncertain. Other mega-landfills and nuclear waste sites have been proposed in and around the Mojave Desert. This use of the desert area would certainly impact all wildlife, including the Le Conte's Thrasher.

### **Biological Standards:**

Measures to ensure the viability of Le Conte's Thrasher populations in the WMPA involve land use policies. Populations in the WMPA will be sustained only through habitat conservation efforts. Activities that destroy nesting and/or foraging habitat should be eliminated. This includes off-road racing, especially along washes, as the Le Conte's Thrasher prefers this kind of habitat for nesting. Other manageable activities include shooting, mining, and cactus poaching. As urbanization continues in the Antelope and Victor valleys and the Morongo Basin, it is expected that the range of the species will continue to decrease. Large tracts, unfragmented by urban development are needed to maintain viable populations of Le Conte's Thrashers. It may be possible to identify important Le Conte's Thrasher habitat areas and, by land exchange and consolidation, provide for sustainable populations.

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