

# Bat Inventory of Descanso District of Cleveland National Forest

Interim Draft Report 2002



Townsend's Big-eared Bat *Corynorhinus townsendii* and  
Long-eared Myotis *Myotis evotis* (left to right)

Prepared for:

**United States Forest Service  
Kirsten Winter**

U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY  
WESTERN ECOLOGICAL RESEARCH CENTER

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## Research Summary

The U.S. Forest Service (USFS) requested a bat inventory of the Descanso district of the Cleveland National Forest (CNF) in San Diego County, California. They were particularly interested in knowing if certain species considered sensitive by the USFS were occurring within the Descanso district. We, the U.S. Geological Survey (USGS) were also interested in knowing what bat species were occurring within the Descanso district as part of a larger research plan to better document the distribution of bat species occurring within San Diego County, California. Therefore, we (USGS) proposed to conduct a two-year general bat inventory of the Descanso district of the Cleveland National Forest. We proposed to carry out this study by conducting bat surveys using acoustic, mist-net, and roost search techniques on approximately 30 nights over the summer seasons (May-September) of a two year period (2002-2003) at sites where it was determined that a rich population of bats, including "Forest Service Sensitive" (FSS) species, could be detected.

During the first year (2002), a total of 14 out of the 21 bat species known to regularly occur in San Diego County (table 1), including two (FSS) species, were detected during bat surveys conducted on 13 nights at 12 different sites within the Descanso district of CNF (table 2). One FSS bat species detected during surveys was the Townsend's Big-eared Bat *Corynorhinus townsendii*. It was captured in a mist-net at the Laguna Ranch cattle trough on two separate dates; June 27 and August 19, 2002. It was also captured in a hand-net during a night roost search of the Boiling Springs pumphouse in Agua Dulce Canyon on August 22, 2002, and it was visually observed within the Lucky Chuck Mine on July 18, 2002 (table 3). A second FSS bat species, the Western Red Bat *Lasiurus blossevillii*, was detected acoustically at three sites: Upper Pine Creek on June 13, 2002, Agua Dulce Canyon on August 22, 2002, and Hauser Canyon on September 19, 2002 (table 3). A third FSS bat species, the California Leaf-nosed Bat *Macrotus californicus* was detected in close proximity to USFS-CNF land south of Barrett Lake during another USGS bat study.

Roost surveys were conducted at three locations: the Lucky Chuck Mine, the Old Highway 80 bridge over Cottonwood Creek southeast of the intersection of Sunrise Highway and Interstate 8, and the Boiling Springs pumphouse in Agua Dulce Canyon (table 3). An external survey of the Lucky Chuck Mine was conducted on July 18, 2002. A few bats were observed flying within the interior of the mine including a Townsend's Big-eared Bat but it did not appear that a significant number of bats were using the mine as a day roost at the time of the survey. However, nearly 20 bats representing two bat species, the Long-eared Myotis *Myotis evotis* and the Small-footed Myotis *Myotis ciliolabrum*, were captured trying to enter the mine beginning just after sunset. At the time of the survey the mine had a fair amount of surface water inside that presumably the bats were attempting to drink from. This water, however, was being drained from the mine possibly as part of an effort to renew mining at this site. Due to the severe drought conditions of 2002, open surface water such as that found in the Lucky Chuck Mine could be very important to the wildlife in the immediate area, as was seemingly apparent during the bat survey. A night roost search was conducted at the Old Highway 80 Bridge over Cottonwood Creek on June 20, 2002. Approximately 25 Big Brown Bats *Eptesicus fuscus* were observed night roosting under the bridge. One was captured in a hand-net; it was an adult female that appeared to be pregnant. It is possible this bridge is also a day roost for these bats; the bridge was not surveyed during the day, however. Judging by the amount of bat guano present at this bridge it is likely this is and has been an important roost for bats for quite some time. Finally, a night roost search was conducted at the Boiling Springs pumphouse in Agua Dulce Canyon on August 22, 2002. Two bats were found night roosting there, a Townsend's Big-eared Bat and a Small-footed Myotis. Visits to this structure in a previous study, the Forest Service bat study conducted in 1996-1998, revealed that this structure was being used as a night roost by other bat species as well, including the rarely observed Long-legged Myotis *Myotis volans*. This structure appears to serve as an important night roost for bats, including a current FSS species, the Townsend's Big-eared Bat. A similar structure located within a few hundred meters of this structure has already been torn down. Maintaining the Boiling Springs pumphouse in Agua Dulce Canyon would benefit bats, serving as an important night roost within potentially high quality foraging habitat.

USFS-CNF bat surveys will continue again in May 2003 and conclude after September 2003. Several of the sites surveyed in 2002 will be re-visited in 2003 and new sites will also be surveyed. A focused effort will be made to detect the other two FSS bat species, the California Leaf-nosed Bat and the Pallid Bat *Antrozous pallidus*, within the Descanso district of the Cleveland National Forest. Additionally, flexibility within the bat survey schedule will be maintained to allow for surveying of any particular structures that might require an immediate management decision.

