

## FIRST RECORDS OF THE BROWN CREEPER BREEDING ALONG THE MIDDLE RIO GRANDE IN CENTRAL NEW MEXICO

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In New Mexico, the Brown Creeper (*Certhia americana*) typically breeds in montane coniferous forests ranging in elevation from 2100 to 3300 m (Ligon 1961, Hubbard 1978). Since 2003, however, we have also noted breeding in the riparian cottonwood forest (hereafter bosque) along the middle Rio Grande, in the south valley of Albuquerque, Bernalillo County, New Mexico. One prior report by another observer (see below) suggests more widespread breeding by the species along the river.

The middle Rio Grande bosque in the south valley of Albuquerque lies at an elevation of approximately 1500 m. The local vegetation is dominated by stands of Rio Grande cottonwood (*Populus deltoides wislizenii*), which have been cleared of their understory of the exotic saltcedar (*Tamarix chinensis*) and Russian olive (*Elaeagnus angustifolia*) during the last decade (see Cartron et al. 2007).

On 5 May 2003, Hawksworth observed a pair of Brown Creepers with one or both birds repeatedly carrying nesting material into a natural cavity (i.e., not a woodpecker hole but instead a rotted-out cavity where a branch was previously attached) 3.3 m high in a dead cottonwood. He checked the site five separate days later in the season but observed no further activity. In 2004, two Brown Creepers were again near this site from mid-May to mid-July. No nest or fledglings were discovered that year, but on 20 June Hawksworth observed one adult twice carrying food. On 9 June 2005, he found two adults feeding two fledglings approximately 7 m high in a cottonwood <30 m away from the 2003 site. Two years later, on 18 June 2007, Cartron discovered two Brown Creepers repeatedly visiting an opening behind loose bark 4.5 m high in a snag 2.6 km south of the 2003 site. Activity at that nest site continued throughout the rest of the month. On 2 July, two fledglings were on the ground at the base of the snag, tucked among dead branches, the adults feeding them multiple times.

The birds of the middle Rio Grande bosque have been studied intensively since the 1980s, primarily during the breeding season (e.g., Hink and Ohmart 1984, Farley et al. 1994, Ellis 1995, Cartron et al. 2004, 2007, Cartron and Mygatt 2006, Smith et al. 2007). The absence of prior records of breeding Brown Creepers suggests that this species is a recent addition to the breeding avifauna along the middle Rio Grande. The 2003, 2004, and 2005 observations—all in the same small area over three consecutive breeding seasons—likely represent a single pair. The distance between the 2003 presumed nest site and the 2007 nest site, however, could indicate colonization of the middle Rio Grande bosque by a small, and perhaps expanding, nesting population. This possibility is further suggested by Bill Howe's observation on 1 September 2004 of two birds together in the Corrales Bosque, more than 24 km north (upstream) of the 2003 presumed nest site (Williams 2005). In New Mexico, the Brown Creeper has rarely been recorded out of breeding montane habitat before the last week of September, with detections consistent (often multiple birds, including some banded) from then into October (Yong and Finch 2002, S. Williams pers. comm.). There are very few credible reports of early fall arrival from lowland areas in New Mexico, including 30 August (once, near Anthony, Doña Ana County), 4 September (once, near Kirtland, San Juan County), and 16 and 17 September (once each, at Shiprock, San Juan County, and Maxwell National Wildlife Refuge, Colfax

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County) (Monson 1954, Hubbard 1974, 1975, S. Williams pers. comm.). Therefore, although Howe's record in the Corrales Bosque as an early fall arrival would not be unprecedented, we believe the two birds he detected on 1 September 2004 may have represented an additional summering pair.

To our knowledge, our observations represent the first nesting records of the Brown Creeper in New Mexico below 1600 m. At Cottonwood Gulch, McKinley County, adults were feeding a fledgling 23 July 1982 (Hubbard 1982), and a nest was found behind the bark of a small cottonwood in 1984 (Goodman 1984), both in cottonwood habitat. The elevation at Cottonwood Gulch, however, is approximately 2250 m, nearly as high as where breeding has also been reported on Mount Taylor (Cibola County) and in Black Canyon in the Black Range, Grant County (see Ligon 1961).

Breeding Bird Survey data reveal no statistically significant population trends for the Brown Creeper in New Mexico or at the larger scale of the entire Southwest (Sauer et al. 2007). The Brown Creeper represents one of three typically montane species now known to breed along the middle Rio Grande. The Mountain Chickadee (*Poecile gambeli*) has been observed nesting in the bosque—and occasionally hybridizing with the Black-capped Chickadee (*P. atricapillus*)—seemingly since the 1970s (Hubbard 1978, 1984). The Plumbeous Vireo (*Vireo plumbeus*) is found primarily in mountains and foothills during the nesting season, but it also breeds very locally along the middle Rio Grande. We have found three Plumbeous Vireo nests in the bosque at one location in northern Socorro County, about 1.6 km NNW of Veguita on the west side of the river, one in 2006, two in 2007. That species has also been recorded breeding farther south at the Bosque del Apache National Wildlife Refuge (Hubbard 1978).

In San Diego County, California, lowland breeding populations of several montane species have become established during the last two or three decades (Unitt 2004). The Pacific-slope Flycatcher (*Empidonax difficilis*) and Dark-eyed Junco (*Junco hyemalis*) are now nesting in mature lowland wooded habitats created artificially through tree planting or alteration of river flows (Unitt 2004). It is still too early to suggest a similar pattern in New Mexico. However, as we know it today, as a continuous strip of cottonwood woodland 280 km long, the middle Rio Grande bosque has very likely been in existence for only a few decades, replacing what were once smaller, scattered bosques as a result of dams and bank-stabilization efforts along the river (Cartron et al. in press). More monitoring may reveal nesting populations of additional montane species along the middle Rio Grande.

We are indebted to both Sandy Williams and Philip Unitt for information that helped place our records into a broader context. Williams provided us with all early lowland fall records for the Brown Creeper, while Unitt shared information on the downhill spread of breeding species in San Diego County. We also thank Greg Keller and Dave Krueper for perceptive and constructive comments on an earlier version of the manuscript. Funding for Cartron was provided by the U.S. Army Corps of Engineers. Funding for Hawksworth and Finch was provided by the U.S. Forest Service Rocky Mountain Research Station's Middle Rio Grande Ecosystem Management Unit, the Joint Fire Sciences Program, the Bosque Improvement Group, and the U.S. Forest Service Southwest Region State and Private Forestry. Additional support was provided by the Bosque del Apache National Wildlife Refuge and the U.S. Department of Agriculture's Plant Materials Center in Los Lunas. Access to our study sites along the middle Rio Grande was granted by the Rio Grande Nature Center State Park, the city of Albuquerque's Open Space Division, and the Middle Rio Grande Conservancy District.

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