

**BROWN CREEPERS BREEDING IN RABUN COUNTY:
A FIRST STATE NEST RECORD FOR GEORGIA
AND SUBSEQUENT FINDS**

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The Brown Creeper (*Certhia americana*) breeds primarily, but not exclusively, in coniferous forests throughout much of North America. This range extends as far north as southeastern Alaska and as far south as Nicaragua (Hejl et al. 2002). Within the southeastern United States, this species was until recently known to breed only as far south as the higher elevation areas, primarily the spruce-fir forests of eastern Tennessee and western North Carolina. There have also been a few scattered breeding records from wetland sites in western Tennessee (Nicholson 1997).

Evidence of summer occurrence of the Brown Creeper in Georgia was first recorded on 27 June 1981 at Grassy Ridge, Rabun County (Oberle and Haney 1997). In the Chattooga River area, breeding was first suspected by Frank Renfrow when he discovered 2 Brown Creepers on the Oconee County, South Carolina, side of Burrell's Ford on 13 June 2000 (Leberman 2000, Renfrow 2003a). During subsequent years, this species was frequently seen by Renfrow in the Chattooga River area in spring and summer, most often on the South Carolina side, but also in Georgia on several occasions. Nesting was first confirmed in South Carolina when Renfrow photographed a pair engaged in nest building at Burrell's Ford on 3 May 2006, less than 100 m from the Chattooga River and the Georgia state line. The presumed female creeper was observed sitting on the completed nest and was being fed by the singing male on 5 May (Davis 2006, Renfrow unpubl. data).

The First Brown Creeper Nest Found in Georgia

In the early afternoon of 1 May 2008, Veronica and Frank Renfrow were surveying for breeding birds in the Chattooga National Wild and Scenic River Area of the Chattahoochee National Forest, Rabun County, Georgia. From the Georgia side of the Burrell's Ford Bridge (elevation 650 m), Renfrow proceeded some 50 m or so uphill off trail through some dense rhododendron (*Rhododendron maximum*) understory to a location where he had heard a singing Brown Creeper the previous spring, on 14 May 2007. Approaching the site he again heard the soft, tinkling song of a male Brown Creeper. The bird was observed depositing nesting material into a mass of pine needles, twigs, and leaf matter located under a 50-cm-long loose bark slab located about 9 m up in a small dead white pine (*Pinus strobus*) that was leaning at an angle against a much larger living white pine.

Soon it was apparent that a pair of creepers was taking turns bringing material to the nest. The male was quite vocal during this time, occasionally stopping to sing from a nearby perch, and was observed on several occasions feeding what was assumed to be the female creeper. The chief food source appeared to be invertebrates, chiefly spiders, as well as some insects, including some moths. On the majority of visits the creepers would arrive slightly above the bark slab, and then squeeze beneath it to deposit new nest material (Fig. 1). The creepers were also observed collecting some white fibrous materials with which they may have been binding or lining the looser matter within the nest structure. On a few occasions the birds were seen depositing white cocoons or spider egg cases some 0.64 cm in diameter into the nest (Fig. 2). Some of the twigs carried by the creepers were of considerable length, almost as long as the birds themselves (Fig. 3).

A Second Nest and Other Breeding Evidence

Renfrow encouraged Ken Blankenship to do follow-up surveys on creepers in the Chattooga River area, and on the morning of 11 May 2008, a calling Brown Creeper was detected by Blankenship near the northern terminus of Billingsley Creek Road in the Chattahoochee National Forest (elevation 696 m). Over the next hour, several additional creeper call notes were heard, and then a Brown Creeper was observed hitching up a large dead eastern hemlock (*Tsuga canadensis*) while foraging. The bird was seen to obtain some kind of food, and then flew with the food in its bill.

Further south on Billingsley Creek Road (elevation 716 m), Blankenship detected a second Brown Creeper by its call. The bird was found hitching up a tulip tree (*Liriodendron tulipifera*) with a moth in its bill. The creeper flew towards a large dead hemlock tree and disappeared. It reappeared moments later without the moth and continued to call and forage in the area. Upon investigation, the dead hemlock proved to have a large area of rotting intact bark approximately 6 m off the ground. Minutes later, the Brown Creeper arrived on this section of bark with an invertebrate in its bill and immediately crawled into a vertical crack in the bark. The bird soon reappeared with no food in its bill. It was clear that a nest was located under the bark, as a small amount of nesting material was protruding from the lower edge (Fig. 4). This bird (and possibly a second adult) was observed over the next 45 min during which it made 11 visits to the nest. On 7 occasions a light-colored moth was delivered, while on the other occasions the food delivery consisted of smaller, unidentifiable invertebrates. The bird foraged on conifers and deciduous trees, both living and dead, and always within a radius of approximately 50 m of the nest tree. On the seventh delivery, the bird emerged from the nest with a fecal sac and deposited it on a nearby tree trunk before continuing to forage. At no time did the bird sing, though it called many times. These calls were very similar to the winter “trill” call, but were noticeably shorter. A subsequent visit on 24 May 2008 revealed this nest site to be no longer in use, but close examination was not possible due to its height above the ground. The bark over the nest was intact and there was no sign of disturbance. No Brown Creepers were detected in the area on that date.

On 29 May 2008, Blankenship surveyed the area along Patterson Gap Road in northwest Rabun County, in the vicinity of Grassy Ridge. A Brown Creeper was detected first by its call, and later by its song at an elevation of 747 m. This creeper followed a similar pattern of behavior as the first bird detected on 11 May. The bird was foraging constantly, and once it had food in its bill, it would always fly in the same direction. It was determined that the bird’s food deliveries were being made to a large stand of dead eastern hemlocks, most of which had copious amounts of loose bark.

Blankenship followed up on the discovery of these nesting Brown Creepers by conducting breeding bird surveys in areas of similar mixed white pine-hemlock-deciduous forest habitat in Rabun and Union Counties in 2009. Three Brown Creeper territories, identified by males singing vigorously, were detected in the area of Billingsley Creek Road and adjacent Overflow Creek Road on 3 May 2009. Summering Brown Creepers were also detected in a new location,

as 2 birds were first observed singing on territory along Coleman River Road in northwest Rabun County on 10 May 2009, and again on 2 subsequent visits to the same area in June. During the initial observation, one of the birds was actively foraging and was tracked for approximately 30 min. As in previous encounters, the bird was delivering food, and always returned to an area of dead conifers which had apparently been killed by a fire. Additional territories were detected on Overflow Creek Road on 18 May 2009 (Brandon Best, pers. comm.), and by Blankenship on nearby Hale Ridge Road on 20 June 2009. Surveys in similar habitat in the Cooper Creek Wildlife Management Area in Union County were unsuccessful.

Breeding Habitat in the Southeast

Outside of its traditional strongholds within spruce-fir forests, the Brown Creeper has been found to nest in mixed hemlock-deciduous forests in both Tennessee and North Carolina (Holt 1974, Kendeigh and Fawver 1981, Nicholson 1997). Similar to breeding Red-breasted Nuthatches (*Sitta canadensis*) in Rabun County, as well as in other breeding locations within the southeastern United States, Renfrow has noted that the Brown Creeper shows a marked preference for breeding habitat containing some element of pitch (*Pinus rigida*), shortleaf (*P. echinata*), and Virginia pines (*P. virginiana*) within areas of maturing mixed white pine-hemlock-deciduous forest. Indeed, the South Carolina Brown Creeper nest discovered in Oconee County by Renfrow in 2006 was located behind a slab of loose bark on a dead shortleaf pine trunk (Renfrow unpubl. data). The availability of dead conifer trunks due to recent outbreaks of hemlock woolly adelgid (*Adelges tsugae*), as well as southern pine beetle (*Dendroctonus frontalis*), may be responsible for a temporary increase in available nesting sites for Brown Creepers at these locations (Renfrow 2003b, 2005).

In 2008, Max Medley conducted a botanical survey of the Brown Creeper breeding locations at Billingsley Creek Road and Patterson Gap Road in North Georgia. Medley determined that the area consisted of a large stand of dead eastern hemlocks, along with some living hemlocks, white pines, and mixed deciduous trees including white oak (*Quercus alba*), tulip tree, northern red oak (*Q. rubra*), birch (*Betula* sp.), and chestnut oak (*Q. montana*). The understory consisted primarily of rhododendron, along with sourwood (*Oxydendrum arboreum*), hobblebush (*Viburnum lantanoides*), highland doghobble (*Leucothoe fontanesiana*), and strawberry bush (*Euonymus americanus*).

Ground cover included Christmas fern (*Polystichum acrostichoides*), New York fern (*Thelypteris noveboracensis*), poison ivy (*Toxicodendron radicans*), Virginia creeper (*Parthenocissus quinquefolia*), highbush blueberry (*Vaccinium corymbosum*), marginal woodfern (*Dryopteris marginalis*), lady fern (*Athyrium asplenoides*), mountain camellia (*Stewartia ovata*), and several violets (*Viola* spp.; M. Medley, pers. comm.).

Conclusions

Continued maturation of the mixed white pine-hemlock-deciduous forest over the latter half of the twentieth and early twenty-first centuries has provided habitat for range expansion of the breeding population of the Brown Creeper from the higher elevations of North Carolina and Tennessee into the middle elevations of northeastern Georgia and northwestern South Carolina. First observations by Renfrow of nesting Brown Creepers at Burrell's Ford in South Carolina in 2006, and Georgia in 2008, with additional breeding observations in Georgia by Blankenship in 2008 and 2009, have now confirmed the existence of a small summering population, first observed and noted by Haney in 1981 (Oberle and Haney 1997). The ornithological record is mute as to whether this species nested in these areas prior to the massive logging operations of the late nineteenth and early twentieth centuries. A renewed threat to these forest communities has recently appeared in the form of the hemlock woolly adelgid, which threatens to remove hemlock from the forest ecosystem in these areas. This change in the forest structure may not bode well for these creeper populations in the future. It is likely that additional breeding evidence of the Brown Creeper will continue to be found within areas of suitable habitat.

Literature Cited

- Davis, R. 2006. Spring migration: Southern Atlantic. *North Am. Birds* 60:362-365.
- Hejl, S., K. Newlon, M. McFadzen, J. Young, and C. Ghalambor. 2002. Brown Creeper (*Certhia americana*). In: A. Poole and F. Gill, eds. *The birds of North America*, No. 669. Philadelphia (PA): The Academy of Natural Sciences and Washington (DC): The American Ornithologists' Union.
- Holt, J.P. 1974. Bird populations in the hemlock sere on the Highlands Plateau, North Carolina, 1946 to 1972. *Wilson Bull.* 86:397-406.
- Kendeigh, S.C., and B.J. Fawver. 1981. Breeding bird populations in the Great Smoky Mountains, Tennessee and North Carolina. *Wilson Bull.* 93:218-242.

Leberman, R.C. 2000. The nesting season: Appalachia. *North Am. Birds* 54:381-384.

Nicholson, C.P. 1997. *Atlas of the breeding birds of Tennessee*. Knoxville (TN): Univ. of Tennessee Press; 426 pp.

Oberle, M.W., and J.C. Haney. 1997. Possible breeding by Red-breasted Nuthatch and Golden-crowned Kinglet in Georgia and South Carolina. *Oriole* 60:52-55.

Renfrow, F. 2002. Georgia's first nesting records for the Red-breasted Nuthatch. *Oriole* 67:33-37.

_____. 2003a. Red-breasted Nuthatch and Golden-crowned Kinglet: the first nests for South Carolina and other Chattooga Records. *Chat* 67:102-109.

_____. 2003b. Notes on vagrancy in Brown-headed Nuthatch with attention to recent range expansion and long-term habitat changes. *North Am. Birds* 57:422-428.

_____. 2005. Range expansion and habitat selection in breeding populations of Red-breasted Nuthatch (*Sitta canadensis*) in the southeastern United States. *North Am. Birds* 59:516-523.



Figure 1. Brown Creeper adding nesting material, Burrell's Ford Road, 1 May 2008. Photo by Frank Renfrow.

Figure 2. Brown Creeper adding a cocoon to its nest, Burrell's Ford Road, 1 May 2008. Photo by Frank Renfrow.



Figure 3. Brown Creeper with twig, Burrell's Ford Road, 1 May 2008. Photo by Frank Renfrow.

Figure 4. Brown Creeper nest, Billingsley Creek Road, 24 May 2008. Photo by Rachel Cass.

