

Cerulean Warbler Fledglings Observed in North Carolina

Charlotte Goedsche

*371 Ox Creek Road, Weaverville, NC 28787-9765,
goedsche@mindspring.com*

In the spring of 1980, Mars Hill College professor Alan Smith (pers. comm. 2002) discovered about 20 singing Cerulean Warblers along the Blue Ridge Parkway several miles north of Asheville in Buncombe County. The first note concerning this colony appeared in Briefs for the Files in 1984: "Perhaps on the breeding grounds was one [Cerulean Warbler] at Bull Creek Valley Overlook, northeast of Asheville, N.C., on 13 May, as noted by Ruth and Jerry Young. It, or another bird, was also there last year. The 3500-foot elevation is much higher than other breeding-season locations in the state" (LeGrand, 1984). Since then, the area from Craven Gap (MP 377.3) to the vista just north of Bull Creek Valley Overlook (MP 373.6) has become known as the most reliable place in western North Carolina to find Cerulean Warblers.

In 1998 I started surveying this same section of the parkway for the Cerulean Warbler Atlas Project (CEWAP) run by the Cornell Laboratory of Ornithology (Rosenberg et al. 2000). I made a concerted effort to find fledglings in 2002, and managed to locate six family groups with at least eight total fledglings.

On 18 June 2002, around milepost 373.5, as I was walking north along the parkway, I became aware of chipping ahead of me and observed to my left a female Cerulean Warbler with a food item in her bill. The female was just a few feet uphill from the road, and moving north parallel to it. I kept walking north, attempting to locate the chipping, when a male Cerulean Warbler appeared about 20 feet uphill from the road approximately 75 feet north of where I had observed the female. The male was also carrying food in his bill, and was only two feet above the ground when first found. I watched the male make three trips to this spot, each time with a food item. During this time, I worked my way up the bank toward the spot where I presumed the male was feeding a fledgling. I then saw the male fly in with an unidentified long-winged insect. The male was obviously disturbed by my presence and hopped back and forth chipping loudly. Eventually the bird dived down into the vegetation, ceased chipping, and then emerged, chipping loudly when flying off. The chipping of the presumed fledgling had ceased.

This activity allowed me to pinpoint the location of the fledgling, but I still could not see it. I cautiously moved toward the spot, and was only three feet away from the fledgling when I finally found it. The fledgling looked very small, and was sitting on a cup of dead leaves, partially sheltered by a dead log behind it. The fledgling tried to raise itself up a few times, but apparently did not yet have the strength to lift itself completely to a standing

position, so it gave the impression of doing a few deep knee bends. While I was making my way up to the fledgling, I heard the male singing occasionally from farther north. This male obviously was tending this fledgling. I never saw the female again.

After returning to the road, I heard more chipping coming from a different location about 20 feet south of the first fledgling. As I attempted to locate the source of that chipping, I took a few steps uphill from the road, and then stopped to listen again. Suddenly what looked like a small white cotton fluffball fell through the air directly in front of me and into the poison ivy (*Toxicodendron radicans*) that covered the ground at my feet. I immediately reached down and moved the vegetation with my hand, looking for it. The bird started to chip, and I caught sight of it. Above, it was the grayish-blue aqua-green color unique to Cerulean Warbler. The fledgling was making short hops about one inch long, moving uphill and away from the road and me.

Neither of the two fledglings I observed could have been capable of sustained flight, and probably were incapable of any form of flight. Although the second observed fledgling seemed to have fallen from the branches of a sapling over my head, the nest from which the two fledglings came must have been in one of three taller trees behind the sapling, a black locust (*Robinia pseudoacacia*), a hickory (*Carya* sp.), or an oak (*Quercus* sp.). I looked for the nest, but the foliage was so thick that I could not locate it. During the hour and twenty minutes I spent in this area, the male seemed to remain north of where I had spotted the female.

The next day, 19 June 2002, I heard chip notes at the same location, and observed the male Cerulean Warbler repeatedly diving down to the ground with food. He was apparently feeding one or more fledglings at this spot and up to 30 feet east of it. On 22 June at this spot and within 50 feet west of it I heard chip notes and a Cerulean Warbler singing, but did not see any adults or juveniles.

The first documented nest of a Cerulean Warbler in North Carolina was found by Simon Thompson in the former Chimney Rock Park in Rutherford County on 17 June 1990 (Thompson 1995). On 30 June 1990 Thompson observed three juveniles in the nest, and watched the female feeding them. The second Cerulean Warbler nest documented was found by Ricky Davis in the colony area I have been surveying, when Davis observed a female on her nest on 7 May 1993 (Davis 1994). Most recently, Thompson and the late Larry Farer discovered an active Cerulean Warbler nest in Chimney Rock Park on 26 May 2002 (pers. comm. 2002). On 14 June 2002, the adults were re-sighted, but the nest was no longer active.

Unfortunately, no one observed any fledglings leaving these nests. To my knowledge, my observation on 18 June 2002 is the first documentation for North Carolina of a Cerulean Warbler fledgling that has just left the nest.

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Literature Cited

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dispersion we observed in Cerulean Warblers breeding. in Indiana, USA, the lack of geographic variation in. population declines may be further evidence of relatively. [Show full abstract] species of wood-warbler in North America. Most prior research on Cerulean Warblers has examined the breeding biology, but there are no data on habitat use by fledgling Cerulean Warblers. Our research aimed to determine where fledgling Cerulean Warblers dispersed after they left their nest, but before they migrated to their wintering grounds.

Methods Since 2007, Cerulean Warbler breeding populations have been monitored in Yellowwood and Morgan Monroe state forests in southern Indiana as part of a 100-year study called the Hardwood Ecosystem Experiment. The German states of Rhineland-Palatinate and North Rhine-Westphalia were worst hit, but the Netherlands is also badly affected. More heavy rain is forecast across the region on Friday, while local officials have blamed climate change. Armin Laschet, the premier of North Rhine-Westphalia, blamed the extreme weather on global warming during a visit to a hard-hit area. "We will be faced with such events over and over, and that means we need to speed up climate protection measures because climate change isn't confined to one state," he said. Experts say that climate change is expected to increase the frequency of extreme weather events, but linking any single event to global warming is complicated.

PICTURES: Deadly floods hit Germany and Belgium. The cerulean warbler's breeding range (Figure 1-1) extends from southeastern Nebraska to western New England and from northern Texas to western North Carolina (Hamel 2000). Dense understories have been observed in other key breeding areas (Jones & Robertson 2001; Nicholson 2003) and have been broadly attributed to the cerulean's affinity for canopy gaps. In the vulnerable post-fledging stage, cerulean warbler fledglings frequently make their way to the ground or shrub layer (personal observation). Nicholson (2003) observed family groups in black locust thickets on strip mines, where adults did not normally occur during the breeding season.

Results The first male cerulean warblers were observed in the study area on 15 April. The Cerulean Warbler (*Setophaga cerulea*) is a migratory songbird that breeds in mature deciduous forests of eastern North America. Cerulean Warblers (hereafter, ceruleans) require heavily forested landscapes for nesting and, within Appalachian forests, primarily occur on ridge tops and steep, upper slopes. In Maryland, fledglings often were observed perching within clumps of grapevines. Understory Vegetation Density and nest success of ceruleans have been positively associated with understory vegetation. In Ohio, vegetation surrounding nest locations had 24% greater understory vegetation density than random locations in the stand.