General Field Notes

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Hermit Thrush Nesting in North Carolina

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The Hermit Thrush (*Catharus guttatus*) is a widespread breeder in northern forests in Canada and the United States. In the eastern U.S. this species is found breeding from northeastern Minnesota east through New England and New York and south to extreme northeastern New Jersey and northern Pennsylvania, with isolated populations in Ohio and West Virginia. South of Pennsylvania, the bird breeds only above 1,200 m in the Appalachians. Virginia has been regarded as the southern limit of the known breeding range, though birds are sporadically heard throughout the Tennessee side of the Great Smoky Mountains and on the higher peaks of North Carolina. Only recently have Hermit Thrushes been discovered in North Carolina during the breeding season, and there has been speculation that these birds breed in North Carolina (Jones and Donovan 1996). The first report of a singing male Hermit Thrush in North Carolina came from Roan Mountain, Mitchell County, 7 June 1979 (Potter and LeGrand 1980). It was not until 1983 that a second North Carolina observation was made: a singing male at Mount Mitchell in June (Chat 48:24). Singing was heard again in June 1984 at Mount Mitchell (Chat 50:26), and in May 1984 at Grandfather Mountain (Lee et al. 1985). Since this time, nesting season observations have been made from a number of peaks above 1460 m (4800 ft) including: Unaka Mountain, Mitchell County, 8 July 1992 (Chat 57: 84), and Polls Gap area, Haywood County 12 June 2000 (Don Henderson, pers. comm; North Carolina State Museum records). Birds continue to be found at Mount Mitchell, including seven birds heard singing 30 June 1995 (Chat 60:76);

and at Roan Mountain five birds were heard in the summer of 1997 (Chat 62:45). Other records include: one bird heard below Beech Gap, Buncombe County (4 July 1992), one collected at Roan Mountain (NCSM 15219), and one heard at a low elevation in Gorges State Park, Transylvania County in June of 2000 (Browning, NCSM record). Seven birds were heard in the Brush Fence Ridge area in late June 2001 (Gerwin and Browning, NCSM record). Also, a juvenile, suspected to be from the local population, was banded in September 1997 at Carvers Gap on Roan Mountain (Chat 62:137). Despite these multiple observations over a period of more than two decades, breeding has never been documented.

On 21 June 2001 I was conducting bird surveys on the Mountains-to-the-Sea Trail from the Big Laurel Gap Overlook towards Glassmine Falls overlook. This section of the trail skirts the edge of the Asheville Watershed in Buncombe County. On two prior visits to this spot, 18 and 19 June 2001, John Gerwin and I had heard and seen and recorded several Hermit Thrushes in this area. As I walked over Walker Knob (elevation 1658 m), I saw a Hermit Thrush singing from about 35 m off the trail. I spotted the singing male about 15 m above the ground at the edge of a tree fall gap. As I approached within 15 m, the bird stopped singing. Scanning with binoculars I located a second Hermit Thrush near the ground at the edge of the gap. The second bird had food in its bill and was making various distress calls as it watched me. I ducked behind a tree and saw this bird drop to the ground. As I moved to the location where I had seen it disappear, I flushed three Hermit Thrush fledglings as well as the adult. Two of the young birds landed in a small sapling fir and the third in a downed dead spruce. They were speckled all over, with bicolored bills and stubby tails. I looked for the nest, since the birds had flushed from within 2 meters of me, but could not locate it.

The ground cover here was mostly dense hay-scented fern (*Dennstaedtia punctilobula)* and ground pine clubmoss (*Lycopodium obscurum*). The gap was approximately 15 x 30 m, and the dominant vegetation in the gap was young red spruce *(Picea rubens)* and Fraser fir *(Abies fraseri)* trees from seedling size to 2-4 m high, though these larger trees were closer to the edge. The forest around the gap was spruce-birch forest and was fairly tall, with spruce reaching 25 m. The elevation was 1658 m, and the ground gently sloped towards the northwest. Usually Hermit Thrushes nest on or near the ground, and many times their nests are in a small depression below the ground vegetation. They are more often associated with disturbed areas within a forest rather than with larger road cuts or edge situations of that size. The Hermit Thrush is typically associated with mixed coniferous/deciduous forests (Dilger 1956)

Hermit Thrushes are known to move into disturbed forests (Jones and Donovan 1996). The high elevation spruce-fir forests of North Carolina have been highly altered by storms, the balsam woolly adelgid *(Adelges piceae),* logging, and acid deposition. In the mid 1980s and early 1990s, biologists surveyed birds along Big Butt Trail (Brush Fence Ridge) several times and detected no Hermit Thrushes (Alan Smith, John Gerwin, pers comm.). Since

that time, serious wind damage has occurred along the ridge, knocking down at least 6 large spruce trees, thus creating numerous gaps. At least three territorial thrushes were found using these gaps in 2001.

It appears that this species has expanded its range into the North Carolina mountains fairly recently, perhaps as a result of recent forest disturbance. High-elevation forest disruptions occurred previously when the area was logged in the late 1800s and early 1900s (Haney *et al*. 2001). However, no records for Hermit Thrush exist from this time, and as a result the range expansion hypothesis is conjecture. The lack of records from the early part of the century may be due to early biologists' failure to recognize the rarity of breeding Hermit Thrushes, or to the loss of records; or it may truly reflect the lack of species from this time. Further observations, along with even crude descriptions of surrounding vegetation, could help elucidate any pattern.

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