

General Field Notes

General Field Notes briefly report such items as rare sightings, unusual behaviors, significant nesting records, or summaries of such items.

First, second, or third sightings of species in either state must be submitted to the appropriate Bird Records Committee prior to publication in *The Chat*.

Range Expansion of Hermit (*Catharus guttatus*) and Swainson's Thrushes (*Catharus ustulatus*) in the Southern Appalachians

Marilyn J. Westphal¹, Marcus B. Simpson², Nora Murdock³, and Andrew Laughlin⁴

¹ 230 Park Lane, Hendersonville, NC 28791

² P.O. Box 337, Advance, NC 27006

³ 142 Roaring Rock Road, Black Mountain, NC 28711

⁴ 37 Russell Street, Asheville, NC 28806

The Hermit Thrush (*Catharus guttatus*) breeds in the western mountains and from Alaska across Canada to the New England states, and south in the higher peaks of the Appalachian Mountains to the Black Mountains of North Carolina. Recent range maps for the Swainson's Thrush (*Catharus ustulatus*) show a similar range, but not extending as far south in either the eastern or western portions. In New England the range is limited to the more northern states and to the Appalachian Mountains. South of New England, Swainson's Thrush is limited to the higher peaks, with the range extending to West Virginia, and more recently, Virginia. This report documents evidence of range expansion of these two species in the southern Appalachians.

Hermit Thrush

Breeding Range in the Eastern US

In the eastern US the Hermit Thrush breeds in northeastern Minnesota, northern Wisconsin and Michigan, throughout Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, through most of New York and northwestern New Jersey, from northern Pennsylvania at elevations over 1,200 meters south in the Appalachian Mountains to southeastern West Virginia, and in isolated populations in Virginia and North Carolina (Jones and Donovan 1996).

Prior to 1979 the Mount Rogers/Whitetop Mountain area of Virginia was considered the southernmost limit for breeding Hermit Thrushes in the Appalachians. On 7 June 1979 Potter and LeGrand (1980) reported a singing male on Roan Mountain in Mitchell County, North Carolina. In 1983 a singing male was found in June at Mount Mitchell (LeGrand 1984) and another in June 1984 (LeGrand 1986). Subsequent nesting season observations include Unaka Mountain in Mitchell County, 8 July 1992 (LeGrand 1993) and the Polls Gap area of Haywood County from June 2000 to present (multiple observers). The species has been of regular occurrence during the breeding season in the higher elevations of the Black Mountains since the initial report (Simpson, 1992). On 30 June 1995 seven singing Hermit Thrushes were at Mount Mitchell (Davis 1996), and five were at Roan Mountain in 1997 (Davis 1998). On 21 June 2001 Rebecca Browning (2003) found three Hermit Thrush fledglings at Walker Knob near Balsam Gap in the Black Mountains. Hermit Thrushes continue to be observed during the breeding season in the Black Mountains, Grandfather Mountain, Roan Mountain, and between Spruce Mountain and Polls Gap in the northern Great Balsams, and numbers have been increasing in some areas. Seventeen were counted on 27 May 2006 during the Black Mountains spring bird count, and 19 were counted during the count on 26 May 2007. Subsequent surveys in that area in June and July found singing Hermit Thrushes along the Blue Ridge Parkway and along most hiking trails in the spruce/fir zone of the Black Mountains.

Laughlin's Hermit Thrush surveys in spring and summer 2007 found numerous Hermit Thrushes in the Black Mountains as well as a singing male at Craggy Gardens that remained through June and July, which was also observed by Westphal, Murdock, and others.

In the southern Great Balsam Mountains, Hermit Thrushes had previously been heard singing in April and early May, but the species was first noted during the breeding season in 2005. On 16 and 17 June 2005 Simpson heard two Hermit Thrushes across from Courthouse Valley Overlook on the Blue Ridge Parkway. The birds were at least 100 yards apart. On 16 June he heard one singing on the ridge running northwest from Chestnut Bald (visible from the Devil's Courthouse parking area). Later in June and in July, Westphal heard five Hermit Thrushes along the Blue Ridge Parkway between Graveyard Fields and Rough Butt Bald Overlook, but most often near Devil's Courthouse, Courthouse Valley Overlook, and Rough Butt Bald Overlook.

From June through August 2006 Westphal again heard Hermit Thrushes in the southern Great Balsam Mountains, although less frequently with single birds at Bearpen Gap Overlook 31 May, Courthouse Valley Overlook 11 June, Rough Butt Bald Overlook 30 July, and Black Balsam in August. All birds heard or observed during the breeding season were above 5000 feet.

In 2007 Laughlin observed Hermit Thrushes in the southern Great Balsam Mountains 15 times as follows:

25 May and 5 June—two singing in Middle Prong Wilderness, one at the bottom edge and one near the top of a grassy bald (also seen by Westphal and T. Tribble on 25 May)

30 May—one at Devil's Courthouse on the trail to the top (Two were heard at this location by Simpson in early and mid-May.)

9 June and 8 July—one in the valley between Investor Gap trail and the trail to Sam Knob

13 June—one singing at milepost 428.4

24 June—one singing on Rough Butt Bald

24 June—one singing on Balsam Knob between the summit and the parkway (closer to summit)

8 July—one singing at the edge of a large field on the Sam Knob Trail

8 July—two singing along the Art Loeb Trail west of Investor Gap Trail (away from Black Balsam Knob)

14 July—one heard singing north of Devil's Courthouse parking area

14 July—one heard at Courthouse Valley Overlook, and one about 0.2 miles south of this overlook. The Courthouse Valley Overlook bird was also heard by Westphal on 30 June. Simpson found birds here in June 2005.

14 July—one singing south of parkway at Wolf Mountain Overlook

14 July—one singing at milepost 427.1, just east of Rough Butt Bald

Although no proof of breeding has yet been found in the Great Balsams, the presence of territorial males for the past three years is compelling evidence of the expansion of the species' breeding range in the southern Appalachians of North Carolina. The first singing male was found in the Black Mountains in 1979, but the first proof of breeding did not come until 2001. The long time interval between first discovery of the species and proof of breeding is probably because of the secretive nature of thrushes, the density of the vegetation, and the difficulty of traversing the terrain.

This new southern limit in the Great Balsams (35° 18'N) is approximately 50 miles (straight-line distance) southwest of the previously described southern limits in the Black Mountains and adjacent Great Craggies (35° 43' N), and approximately 25 miles (straight-line distance) southeast of Polls Gap (35° 33'N). Although Hermit Thrushes had been heard in this area during migration periods in April and early May prior to 2005, ours are the first reports during the breeding season in the area from Devils Courthouse to Richland Balsam and Wolf Mountain, which had been extensively worked by Simpson and others since the late 1950s.

Breeding Habitat

In the US the Hermit Thrush is a bird of the interior forest that favors internal forest edges such as pond and meadow edges and areas disturbed by logging, drilling, utility cuts, wind, and fire, as well as mountain bogs and glades (Jones and Donovan 1996). In Pennsylvania Hermit Thrushes are most common in extensive northern hardwood forests where a population increase of 9% per year since 1980 has been noted on Breeding Bird Survey routes (McWilliams and Brauning 2000). They also inhabit cool, damp, mixed deciduous-coniferous forests, both mature and second growth, at

higher elevations (above 1500 feet in the northern part of the state, and above 2000 feet in the southern part of the state) usually in well-forested areas, but also edges and small clearings within wooded areas (Brauning 2000). In West Virginia Hermit Thrushes are most numerous in mixed spruce-northern hardwood forests, or at the edge of mountain bogs in pure spruce forest. However, they are less common in pure spruce forest when Swainson's Thrushes are present (Hall 1983). In Virginia Hermit Thrushes are found in the mixed spruce-fir and northern hardwood forests of Mount Rogers and Whitetop Mountain.

Until recent years, in North Carolina Hermit Thrushes have been found exclusively in the spruce/fir or mixed coniferous/northern hardwood zones. Major canopy species include Fraser fir (*Abies fraseri*), red spruce (*Picea rubens*), mountain maple (*Acer spicatum*), striped maple (*Acer pennsylvanicum*), yellow birch (*Betula allegheniensis*), mountain ash (*Sorbus americana*), and pin cherry or fire cherry (*Prunus pennsylvanica*). However, the individual found in the Great Craggy Mountains in 2007 was in an area of rhododendron thickets with a mix of largely yellow birch and mountain ash. In the southern Great Balsam Mountains the areas of spruce/fir are much less extensive, and Hermit Thrushes were largely found in mixed coniferous/deciduous areas, and often in the absence of spruce/fir (Laughlin, unpubl.). All individuals thus far have been found above 5,000 feet. The Hermit Thrush will likely continue its expansion into suitable habitat in the mountains of North Carolina.

Swainson's Thrush

Breeding Range in the Eastern US

Swainson's Thrush breeds through northern Minnesota, Wisconsin, and Michigan and in the mountain ranges of Maine, New Hampshire, Vermont, western Massachusetts, the Adirondack and Catskill Mountains of New York, and the Allegheny High Plateau of northern Pennsylvania, with disjunct populations in the spruce belt of West Virginia (Mack and Yong 2000). In 1966 Swainson's Thrushes were discovered during the breeding season at Mount Rogers in southwestern Virginia (Scott 1966). The population on Mount Rogers has been confined largely to the highest elevations around the summit (Shelton 1976) although individual birds were also noted in June 2007 at Big Pinnacle in nearby Grayson Highlands State Park by Simpson. In 1986 the Virginia Society of Ornithology Foray members found both Hermit and Swainson's Thrushes in spruce on the summit of Beartown Mountain in Tazewell County, Virginia (Peake 1987, 2001). Subsequently Shelton (pers. comm.) found both species there through the early 2000s, but only three or four singing Swainson's Thrushes. Shelton also found one singing Swainson's Thrush in hemlocks around High Knob Lake, Wise County, Virginia in June and July 2000 and 2001, but not subsequently.

In North Carolina the first indication of possible breeding occurred in June 2005 when R. Davis (pers. comm.) found one Swainson's Thrush

singing at Roan Mountain, but the bird was not relocated. Also in June 2005 K. and L. Reynolds (pers comm.) heard what they believed was a Swainson's Thrush singing along the Mountains-to-Sea Trail near Balsam Gap in the Black Mountains, but positive identification could not be made. Then on 27 May 2006 during the Black Mountains spring bird count, Westphal heard a Swainson's Thrush in the Black Mountains west of Blackstock Knob. That bird could have been a late migrant. On 26 May 2007 during the Black Mountains spring bird count, Murdock and Westphal heard four Swainson's Thrushes between Balsam Gap and Potato Knob. Such observations in the same area suggested possible breeding activity. On 10 June, Simpson heard two thrushes singing in the area of Rainbow Gap. Subsequently, during every weekend in June and July 2007, either Westphal, Murdock, Simpson, or all three searched the area between Balsam Gap and Potato Knob. During that time they discovered six distinct territories with one thrush seen regularly, two others seen once or twice, and the other three only heard.

Two singing males occupied adjacent territories approximately 0.25 mile west of Blackstock Knob. Another male on territory was about 0.5 mile south of Rainbow Gap, and three more adjacent territories were between 0.25 and 0.5 mile southeast of Rainbow Gap. These six birds remained in the same general locations throughout June and July. The observers found no proof of nesting during this time, but the consistent locations and singing suggests that the birds were nesting. This expanded range into the Black Mountains, at latitude 35°44'N, lies 78 miles southwest of the previous southern extent of the breeding range for Swainson's Thrush at Mount Rogers, at latitude 36°40'N.

In 2008, the authors surveyed three areas above 5000 feet elevation in the Black Mountains and contiguous Blue Ridge range. The most thorough coverage involved the five-mile section of the south rim of the Black Mountains between Balsam Gap and Black Mountain Gap, where the authors conducted multiple surveys between 25 May and 12 July. Swainson's Thrushes were recorded on numerous visits, and the behaviors were consistent with four to six territorial males, occupying essentially the same areas noted in 2007. One isolated record was also reported at 0.4 miles southeast of Balsam Gap at an elevation of 5480 feet. As in 2007, no proof of nesting was discovered.

The other two survey routes for 2008 included the five-mile stretch of NC Route 128, which follows the east rim of the Black Mountains from its junction with the Blue Ridge Parkway to the summit parking lot at Mt. Mitchell, and the Blue Ridge Parkway from Black Mountain Gap north to milepost 353. Simpson surveyed these two routes on six occasions in June and July, but found no evidence of Swainson's Thrushes.

Other Ranges

Elsewhere in the southern Blue Ridge province, Bill Sullivan (pers. comm.) reported a singing Swainson's Thrush on 29 June 2008 near the summit of Mt. LeConte in the Great Smoky Mountains, suggesting that the

species may be continuing its southward expansion. However, field work by Simpson in June and July 2007 and 2008 failed to detect Swainson's Thrushes at other localities in the Great Smoky Mountains (Newfound Gap to Clingman's Dome), northern Great Balsam Mountains (Poll's Gap to Spruce Mountain), the Plott Balsam Mountains (Blue Ridge Parkway), southern Great Balsam Mountains (Roy Taylor Forest Overlook to Tanasee Bald), Pisgah Ridge (Devil's Courthouse to Black Balsam Knob), Grandfather Mountain, Roan Mountain, and Unaka Mountains. Observers working these areas in the future should be alert for evidence of Swainson's Thrushes during the nesting season.

Breeding Habitat

In general, Swainson's Thrushes are closely associated with coniferous forest. Canopy closure, understory cover, tree density, and a conifer component are important habitat attributes. Nesting locations in the northern US and Canada occur in old growth, mature, and young forests. Where this species overlaps with other closely related thrush species, mutually exclusive ranges are partitioned by elevation, foraging tactics, and differential use of habitat structure (Mack and Yong 2000).

In Pennsylvania the largest population of Swainson's Thrush is in old-growth forest in the High Plateau-Allegheny Mountains (McWilliams and Brauning 2000). In West Virginia a small but healthy disjunct population exists in the higher mountains in the spruce belt. Greatest numbers are in pure spruce forest of any age, but Swainson's Thrushes are also found in the spruce-northern hardwood forest (Buckelew and Hall 1994). In Virginia a small, disjunct population is found in the high elevation spruce/fir forest of Mount Rogers. Phil Shelton reports that the population around the summit of Mount Rogers has remained stable with about six to eight singing males every year. There were one or two summer resident males at nearby Whitetop Mountain through 2006, but an infestation of southern pine beetle (*Dendroctonus frontinalis*) in the occupied spruce stand may have eliminated this population or caused it to move (Phil Shelton pers. comm.).

In the Black Mountains of North Carolina all individuals are found at elevations between 5400 and 6000 feet in dense forest with largely red spruce canopy and an understory of mainly young Fraser fir. Although Swainson's Thrush, Hermit Thrush, and Veery (*Catharus fuscescens*) could all be heard within the same area, we saw only Veeries within what were likely Swainson's Thrush territories. Hermit Thrush territories seemed to be somewhat scattered. In other areas of the eastern U.S. where these three species overlap, territories are often separated by elevation, with Swainson's Thrushes occupying the higher elevations. In the Black Mountains this was not the case, as all three thrush species inhabited the same area. Habitat separation was not clearly evident, but further study is needed. Foraging habits may differ among the three species, thus reducing competition. Also, Hermit Thrushes arrive in early to mid-April, Veeries in late April and early May, and Swainson's Thrushes in mid- to late May.

Study of the population of Swainson's Thrushes in the Black Mountains will continue in spring 2009 to search for further confirmation of breeding and to look for possible population expansion. Additional surveys are planned in 2009 for other ranges in the southern Blue Ridge where suitable habitat occurs.

Literature Cited

- Brauning, D. W., 2000. Atlas of Breeding Birds in Pennsylvania, University of Pittsburgh Press, 270 pp.
- Browning, R. B. 2003. Hermit Thrush nesting in North Carolina. *Chat* 67:11–13.
- Buckelew, A. R., Jr., and George A. Hall. 1994. The West Virginia Breeding Bird Atlas, University of Pittsburgh Press.
- Davis, R. 1996. Briefs for the Files. *Chat* 60:66–79.
- Davis, R. 1998. Briefs for the Files. *Chat* 62:41–47.
- Hall, G. A. 1983. West Virginia Birds, Carnegie Museum of Natural History, no. 7, 107 pp
- Jones, P. W. and T. M. Donovan. 1996. Hermit Thrush (*Catharus guttatus*). In The Birds of North America, No. 261 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.
- Legrand, H. E., Jr. 1984. Briefs for the Files. *Chat* 48:18–26.
- Legrand, H. E., Jr. 1986. Briefs for the Files. *Chat* 50:22–27,11.
- Legrand, H. E., Jr. 1993. Briefs for the Files. *Chat* 57:77–85.
- Mack, D. E. and W. Yong. 2000. Swainson's Thrush (*Catharus ustulatus*), In The Birds of North America, No. 540 (A. Poole and F. Gill, eds.), The Birds of North America, Inc., Philadelphia, PA.
- McWilliams, G. M. and D. W. Brauning. 2000. The Birds of Pennsylvania, Comstock Publishing Associates, Cornell University Press, 332–334.
- Peake, R. H. 1987. Results of the 1986 Tazewell County Foray. *Raven* 58:1–17.
- Peake, R. H. 2001. Range expansion or reinvasion of old range? A discussion of the status of species with northern affinities in Wise County based on over thirty years of observations. *Raven* 72:137–140.
- Potter, E. F. and H. E. LeGrand, Jr. 1980. Bird finding on Roan Mountain, Mitchell County, N.C. *Chat* 44:32–36.
- Scott, F. R. 1966. Results of the Abingdon Foray, June 1966. *Raven* 37:71–76.
- Shelton, P. C. 1976. Observations of northern birds on Mount Rogers. *Raven* 47:51–53.
- Simpson, M. B. 1992. Birds of the Blue Ridge Mountains. The University of North Carolina Press, Chapel Hill.