

SWAINSON'S THRUSH NESTS IN THE ALLEGANY HILLS

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ABSTRACT — Swainson's Thrush in the Allegany Hills nests on the lowest branch of hemlock trees far from the trunk.

There is an isolated population of Swainson's Thrush (*Catharus ustulatus*) nesting in the Allegany Hills of Cattaraugus, Allegany, and probably Chautauqua counties. The Allegany Hills is part of a larger, physiographic, higher, area extending from the above counties of New York into Pennsylvania, called the High Plateaus section of the Allegheny Plateau (Hough and Forbes 1943, Brauning 1992). The breeding distribution of this thrush in New York is fragmented, occurring in five areas of the state between 549 m (1800 ft) and 1219 m (4000 ft) in elevation (Peterson 1988). The fragmented areas are the Adirondacks, Tug Hill, the Catskills, Chenango County, and the Allegany Hills. They are found essentially in hemlock - northern hardwoods in the Allegany Hills and spruce-fir-northern hardwoods in the Adirondacks, Catskills, and Tug Hill. The Chenango County population appeared to nest in large reforestation plantations of Norway and white spruce (Peterson 1988).

The nesting habit of this thrush in the Allegany Hills population is different from areas where the bird nests in spruce and balsam in the Adirondacks and Catskills and probably birds nesting in Chenango County (Eaton 1981). Birds nesting in areas of spruce (*Picea*) and balsam (*Abies*) place the nest commonly on a horizontal branch near the trunk (Bent 1949, Harrison 1975). All but one of the nests found in the Allegany Hills (Table 1) was located in hemlocks (*Tsuga canadensis*) on the lowest living branch, in a thick area of hemlock needles, several meters out from the trunk. The average height from the ground was 5.8 m (n=9), range 2.3 m to 9.8 m, average distance from the trunk 3.6 m (n=5), average diameter breast high of the hemlocks was 32 cm (n=5). One nest was actually placed in a Sugar Maple (*Acer saccharum*) sapling 2.3 m from the ground and approximately 0.7 m from the end of a hemlock branch, (Table 1, nest 11).

Nests were started by birds placing dead leaves of early mountain rice grass (*Oryzopsis asperifolia*) (nests 1-10) or beech (*Fagus grandifolia*) and maple (*Acer* sp.) leaves (nest 12) in a small crotch near the end of a hemlock branch. The main bowl of this nest was then added, made of hemlock twigs, and in its upper part much moss was worked into the twigs. The lining was of fine dark rootlets and grass stems. The inside diameter was 6.5 cm and inside depth 5.5 cm.

The nests of Swainson's Thrush in northern New England were practically all found in spruces or firs, 11 in spruces and 10 in firs, and usually close to the trunk, though occasionally one was about 2/3 rds the way out on a branch. The

height from the ground varied from 0.7 m to 6.6 m but only two were above 2.3 m (Bent 1949). The location of hemlocks in the Allegheny Hills is usually in what Saunders (1942) called the "hemlock line", a line of springs on the mountain sides, caused by peculiarities in the geological formation. This occurs at about 623 m elevation. The under story of these hemlocks, averaging 32 cm in diameter normally would have a good supply of young hemlocks but in the Allegheny Hills they have largely been overbrowsed by deer (*Odocoileus virginianus*) and the Swainson's Thrushes have taken to nesting in the terminal ends of the lowest branches of the larger hemlocks (Baird 1990, Anonymous 1992). These areas, far from the trunk of the tree, are more remote from passage by red squirrels (*Tamiasciurus hudsonicus*) and other similar mammalian predators on their way to the hemlock canopy. Spring runs, deer and mammalian predators are perhaps major selective agents contributing to the present nesting sites of Swainson's Thrushes in the Allegheny Hills.

Table 1. Nests of Swainson's Thrush in Cattaraugus County.

<u>Nest No.</u>	<u>Date</u>	<u>Town</u>	<u>Chronology</u>
1	24 Jun 53	Carrollton	Incubating
2	24 Jun 53	Carrollton	Incubating
3	26 Jun 53	Carrollton	Incubating,
	30 Jun 53	"	3 eggs
	4 Jul 53	"	2 young + 1 egg
4	26 Jun 53	Carrollton	Fresh nest
	4 Jul 53	"	Incubating
5	26 Jun 53	Carrollton	Building
	30 Jun 53	"	Incubating
	4 Jul 53	"	Incubating
6	26 Jun 53	Carrollton	Fresh nest, no eggs
7	26 Jun 53	Carrollton	Fresh nest, no eggs
8	26 Jun 53	Carrollton	Fresh nest
9	26 Jun 53	Carrollton	Incubating
10	26 Jun 53	Carrollton	Fresh nest
11	26 Jun 55	Great Valley	3 or 4 young, about 6 days old (1 for WC Dilger behavior study)
12	16 Jul 96	Red House	3 eggs
	23 Jul 96	"	3 eggs
	8 Aug 96	"	Predatorized, nest collected

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