



Habitat and Research Needs of Midwest Spot-Breasted Thrushes

Veery (*Catharus fuscescens*)

The veery prefers damp, deciduous forests and shows a great affinity for areas that have been disturbed. This is more than likely due to the denser understory found in these areas as opposed to the relatively open understory of a mature forest. They show a strong preference for riparian areas and areas inhabited by beavers. Another strong factor that influences the presence or absence of veeries is the size of the area. A forest tract must be at least 50 acres in order for there to be a 50% chance of the veery occurring there. In 22 breeding sites in Illinois, only two of these sites measured less than 250 acres. The particular habitat within these tracts that the veery will choose may depend on the density of other thrushes in the area, in other words, competition. The single most important factor in this selection seems to be the successional stage of the area. Veeries prefer younger stands than wood thrushes and stands of about the same age as hermit thrushes.

Despite their apparent need for large tracts of disturbed forest, the veery will defend only a small area immediately around the nest site. This area may be as little as a quarter of an acre in size, with the average being less than an acre. But, at the same time, this information needs to be scrutinized carefully as veeries have been known to nest within 50 feet of one another in Quebec.

Almost nothing is known of the migratory or wintering habitat requirements.

Our knowledge of the breeding biology of the veery has several gaps. These include:

- information on nest site selection
- brood timing
- sturdiness of eggs in relation to weather variables
- number of broods per season
- age at first breeding

Additionally, virtually nothing is known about hatching in veery populations. This would include the condition of hatchlings, their growth and development, and how long the parents brood the young before they are able to regulate their own body temperature. No data exists on immature birds regarding nutrition and energetics, drinking, and metabolism.

There are two areas in particular where citizen scientists can have a marked effect:

1. Does the location a veery chooses for vocalizing change as trees leaf out?
2. Is there any variation of vocalizations from one region to another?

In terms of global research, the location of overwintering grounds remains unknown for this species. There are also numerous questions on possible subspecies and the differences between them.

Gray-cheeked Thrush (*Catharus minimus*)

The gray-cheeked thrush does not nest or overwinter in the Midwest United States, but they do migrate through the area. Ironically enough, virtually nothing is known of their migratory habitat needs. It has been said that they may be sighted “in any treed or shrubby area ...”

Research is needed in virtually all aspects of this species’ biology and ecology. Banding studies could add a great deal to the knowledge of the migratory patterns. The most important thing any birder could do for this species in the Midwest is to thoroughly document the habitat where the bird is found during this time of year.

Swainson's Thrush (*Catharus ustulatus*)

Like the gray-cheeked thrush, the Swainson’s thrush breeds to the north of the Midwest area, with the southernmost nests known from northern Michigan and Wisconsin. However, they do migrate through the rest of our area, so the habitat requirements during migration are the focus of our interests.

The main determinant appears to be the density of undergrowth within a wide variety of habitats – or is it? Numerous accounts exist of Swainson’s thrushes being found during migration in deciduous forests with open understories in Pennsylvania. Research shows that in the early parts of their migratory travels, they tend to associate with wetter areas, such as floodplains and willows. However, in Arkansas, the reverse seems true; more upland sites are utilized than bottomland areas (at least, that is what the reports are showing). Could this simply be due to the fact that observers are more numerous in the upland area?

Virtually the entire migratory behavior and requirements of the Swainson’s thrush remains unknown. What little knowledge does exist seems to point to an importance of “refueling” sites along the migratory pathway. Therefore, these stopover sites need to be determined and the spatial distribution of these sites needs extensive study.

Perhaps the best thing any observer can do is not only thoroughly document the habitat in which this bird is found, but also closely observe and document the usage of the various components of that habitat, especially the foraging height. There are various reports of Swainson’s, gray-cheeked and hermit thrushes dividing foraging sites vertically during the nesting season. Does this continue on through the migratory season, or does the Swainson’s thrush utilize more than one or even all niches available? If so, what competition exists between the Swainson’s thrush and other thrushes? What competition, if any, exists with species other than thrushes?

Hermit Thrush (*Catharus guttatus*)

Hermit thrushes nest in the northern parts of the Midwest region, winter in the southern parts and migrate between the two in the rest of the region. Therefore, we need to be cognizant of the habitat needs throughout the year, with perhaps a little more attention paid to migration paths and wintering sites.

Hermit thrushes breed in a wide variety of forest and edge habitats, more so than any of the other spot-breasted thrushes. But even this has to be qualified. In terms of edge habitat, hermit thrushes show an affinity for the *interior* forest edges, such as those found

around woodland ponds, and areas adjacent to disturbances, such as fires, logging, road and utility cuts, and even those edges within deciduous forests next to stands of conifers.

During migration, edges also play an important role, as do interior forest areas, especially the lower niches of those habitats, and second-growth areas, especially those that have thick ground cover.

Winter habitat is marked by moist areas with dense woody growth. Snow cover has been noted as being a negative determining factor in winter habitat for hermit thrushes.

Very little information exists on the size of territory these birds need during either the nesting or winter seasons. Even less information exists on the fidelity of these birds to either area. What information does exist shows high variability on the breeding territory. More study, especially with banded birds, is needed.

The following areas are noted as being most critical for future research projects:

1. Basic breeding biology
2. Basic nesting information (number of broods, number of young, success rate, etc.)
3. Factors associated with highest breeding success, including effects of natural and manmade disturbances
4. Fidelity to breeding and wintering areas and the factors that influence dispersal, or otherwise increase or decrease that fidelity
5. Dispersal information with regard to geographical variation in races
6. Vocal patterns and geographic variation in these patterns

Wood Thrush (*Hylocichla mustelina*)

The wood thrush might well be the epitome of neotropical migrants whose populations have declined in recent years. The causes of these declines are many. But, as with all species, decline of suitable habitat must be included at, or at least near the top of, the list. Wood thrushes occupy habitats in our area only during the summer months. During this time, they are strongly associated with both the interior and edges of deciduous and mixed forest types, with a special affinity for well-developed, upland, mesic woods. The species of trees and shrubs associated with these sites are numerous, and the differences between the preferences of the wood thrush and other thrushes are slight. For instance, wood thrushes are found in areas with more understory than the areas where American robins are found, but in less dense understory than those areas favored by the veery.

The typical nesting territory is two to six acres, but it is not known what portion of this territory is actively defended. Banding studies have found some individuals tend to stay within these territories, while others travel extensively, well away from the presumed territories.

First and foremost, studies are needed to determine the extent and reasons behind the apparently dichotomous reports of territoriality in wood thrushes. In some areas, populations appear stable while nearby populations have drastic changes in numbers from year to year. We need to know the factors that are causing one population to fluctuate wildly while an adjacent one appears stable.

On the breeding grounds, we do not know if, or to what extent, the habitat is partitioned along gender or age-class lines. We do not know anything about the dispersal of the young or spatial relationship between hatching and first-nesting sites.

Research is also needed on the relationships between site fidelity, age, sex, reproductive success, and habitat.

In terms of population numbers, we need to determine if problems exist in accurately censusing these birds. Along those same lines, we need to learn all we can about the timing of migration and how it differs among sex and age.

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