# NOTES ON THE MATING OF SONG SPARROWS AND THEIR RANGE-LIMITS DURING THE NESTING-PERIOD

### BY MRS. L. C. HAMILL

AT my banding station in Worcester, Mass., during the nesting-seasons of 1924 and 1925, I have had just two pairs of Song Sparrows (Melospiza m. melodia). The region hereabouts is rather thickly populated, the houses being approximately one hundred feet apart. That I have this species nesting at all is doubtless due to very favorable local conditions--suitable cover, trees, hedges, tall grass, shrubbery, etc., a stone wall, garden, and moist land about a hundred feet away. The immediate conditions about the house are shown in the accompanying Plate, drawn to scale, as well as the locations of various Song-Sparrow-nests and the approximate range-limits of the two pairs of birds during their two nesting-seasons. It will be noted that my two ground traps are close to the house, so that the comings and goings of the Sparrows which visited one or both, several times each day, were easily observed, and the information following about these birds has been secured by observational methods rendered possible largely by the fact that they were banded and because no associated adult birds of this species occurred on the premises during the two years.

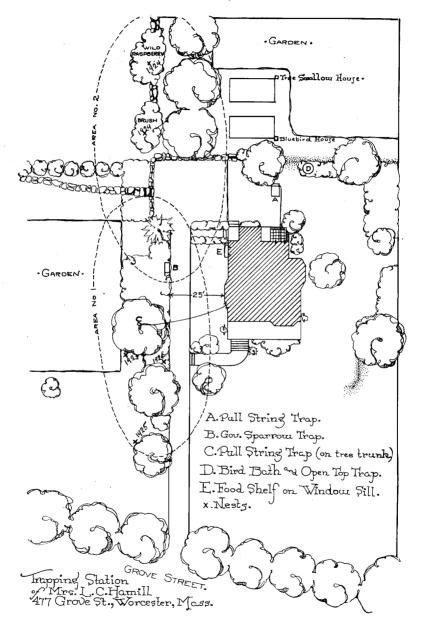
# The Record for 1924

The first Song Sparrow to be banded in 1924 was No. 119791. This was on April 28, but its mate, which was also seen at this time in Area No. 1, escaped me until May 3rd, when the second bird was taken, No. 119794. These will be referred to as "pair one."

The pair occupying Area No. 2 were banded April 30th and May 2nd, bands Nos. 119792 and 119793. To check up their distribution I later moved my sparrow trap into the center of Area No. 2 and obtained repeats of both birds. This pair will be referred to as "pair two". During the season of 1924, 119791 repeated thirteen times,

During the season of 1924, 119791 repeated thirteen times, and 119794 nine times, but they were in the first chamber of the sparrow trap countless times, for they soon learned the way out and ignored the food in the second chamber.

Pair one built a nest in a lilac bush one foot from the ground



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(see X1924 plate) in which were deposited five eggs, four of which hatched, the young leaving the nest July 11th. The second nest was not definitely located, but as the birds soon began carrying food (into the same area), there doubtless was one. Pair one was not seen to leave this area except to visit the pull-string trap and the bath.

Pair two, being farther away from the sparrow trap, did not repeat so often, but stayed in their little reservation, where they built their first nest in a brush-pile (see plate), which I found quite inaccessible, whereas their second nest was in a patch of wild raspberry, where I should have needed at least the lower half of a suit of armor to find it.

Of the four broods raised this season, only three birds were banded as they visited the traps in July and August.

## The Record for 1925

The first Song Sparrows to appear this year were pair two. This was on March 31, and they were captured as returns on this date. The evidence appears conclusive that they arrived as a mated pair, and it is a fair presumption that they came all the way from their winter quarters together, since they would hardly appear at the same time otherwise. At once upon their arrival they began looking over the old familiar brush-pile they occupied last year. Pair two (Nos. 119792-3) again passed the season in Area No. 2, and, as was the case in 1924, they raised two broods, the first one in the brush-pile that baffled me last season. The birds entered the brush over a certain route, but I flushed the bird from the grass on the other side where a circuitous tunnel apparently led to its nest. This brood left the nest May 24th, and not until the adults again began to carry in food in the same direction did I learn that there was another brood somewhere. This was about the middle of August.

Pair one (119791 and 119794) appeared this year about April 15th and immediately occupied the same territory as last year. The birds were promptly taken and their identity fully established, making my third and fourth returns of this species, and my second return of a mated pair. Incidentally it should be stated that taking adult Song Sparrows alone into consideration, my returns amounted to 100 per cent, and of the total number banded 59.14 per cent returned in 1925.

As was the case with pair two, two nests were built. Only the last one, however, was found. This was located in Area. No. 1 in a thick stand of grass and ostrich ferns at the edge of the garden.

Of the young Song Sparrows raised this season, I banded fourteen—one on May 24th (first day out of nest), four during June, four during August, and five during September, as they visited the traps.

I am positive that these two pairs were the only Song Sparrows resident on my grounds either year. Each pair occupied exactly the same territory that they occupied the previous year, and neither pair, so far as I observed, ventured on the territory of the other pair, excepting to a limited extent where their nesting-areas overlapped. This area is indicated in the diagram. Each of these range-areas comprises about eight thousand square feet, a tract roughly sixty by one hundred and twenty-six feet.

None of the young, numbering three, banded in 1924, was taken in 1925.

The particular configuration of the range-limits shown is doubtless due in large part to the distribution of cover favored by this species existing about my station, and it is probably true that the immediate locality would not have furnished another nesting-area suitable for any of the children of these birds, banded in 1924, had they returned in 1925.

These two nesting-areas appear to be fairly well marked examples of what Howard has so appropriately called "territories" (see his book, "Territory in Bird Life").

I am looking forward to the next season's experiences at my station.

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# SOME NOTES ON BAIT

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THOUGH, to my regret, my traps have been idle for several years, I have kept water and food constantly available for the birds in our garden; and in this way I have gained experience which I expect will prove valuable when I resume bird-banding, and which may interest bird-banders elsewhere.

Our bird-bath, three feet by two in size, has attracted more species and more individuals than any other lure we have