## NOTES ON THE NESTING OF TURDUS LEUCOMELAS IN SURINAM

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THE Grey-headed Thrush (*Turdus leucomelas*) has a vast range in South America from Colombia eastward to the Guianas and southward to southeastern Brazil, Matto Grosso and Perú. The representative in Surinam, *T. l. albiventer*, is confined to Colombia, Venezuela and the region from the Guianas southward to the middle Amazon and Bahia. The upper surface of this thrush is brown, except the head which is dark greyish. The breast, abdomen and sides of the body are grey, the throat being broadly streaked with white. The axillaries and under wing coverts are bright rufous and the eyes are dark red. The sexes are indistinguishable in the field. The weights of specimens collected by me in Surinam are: 10 males, 55 to 76 grams (mean, 68), and 5 females, 67 to 75 grams (mean, 71).

In the coastal region of Surinam this is the commonest thrush, frequenting open forests and coffee plantations. It is now a common garden bird, breeding even in the middle of Paramaribo, but it also occurs in the sandy savannas further into the interior wherever there are scattered bushes or patches of forest. The local name in Surinam is "boontjedief" (= thief of peas). Another thrush in the coastal and savanna area is *Turdus nudigenis* which is found in the same habitat but it is definitely less numerous. Two other species, *T. fumigatus* and *T. albicollis*, are shy forest birds.

Breeding season.—In the Penard Oölogical Collection from Surinam, now preserved in the Leyden Museum, the eggs of T. leucomelas are dated January to June, but in my experience the breeding season begins at least two months earlier, in November and December. Thus, nesting seems to be confined to the short rainy season (from mid-November until mid-February), the short dry season (from mid-February until mid-April) and the long rainy season (from mid-April until mid-August). Breeding apparently does not take place in the driest months of the year (August to October) which may be due to the fact that at that time the ground is too hard and dry to provide sufficient food for the nestlings. That breeding does take place in the short dry season is not a contradiction of this rule since there is quite a lot of rain in this period, in most years. In fact, during the last several years this season was extremely wet. Fifteen nests in which incubation was in progress were distributed as follows: November, 1; December, 2; January, 1; February, 1; March, 2; April, 4; May, 4.

From December, 1951, until June, 1952, I was able to observe a pair that nested on a rafter near one of my windows, and which reared four broods in rather quick succession in the same nest. Though the birds were not marked I am certain that it was the same pair. Their history is as follows:

Brood No. 1. Nest-building started on December 8, 1951. Incubation was seen for the first time on December 18, and feeding the nestlings on January 1, 1952. Two young left the nest on January 16 and one the following day.

Brood No. 2. Repairing of the nest started on January 29. Incubation was seen on February 6, and feeding the nestlings on February 20. Three nestlings left the nest on March 6, 7 and 8, respectively.

Brood No. 3. Repairing of the nest was seen on March 14, and incubation began on March 18. Two young left the nest on April 18 and 19.

Brood No. 4. Repairing of the nest started on April 25. On April 30 it was still empty, but it contained 2 eggs on May 2 and 3 eggs on May 3. The eggs hatched on May 15. Two nestlings left the nest on June 1.

In four broods a total of 10 young was reared.

Nest and nest-building.—In the cultivated area the nest is very often made on rafters under wooden buildings. The nest is a typical thrush nest, and is lined with small, dry roots, therefore resembling the nest of the European Blackbird (*Turdus merula*). I observed only one bird engaged in building, probably the female as is the rule among thrushes.

Eggs.—As most nests are difficult to reach I have no records of clutch size apart from Brood No. 4 (3 eggs), but from the data in the Penard Collection it seems that a 3-egg clutch is the rule, and that 4 eggs may occur. The weights of three fresh and unblown eggs from Brood No. 4 were 6.2, 6.4 and 6.6 grams. In Brood No. 4 the eggs were laid daily.

Incubation.—Invariably I saw only one member of the pair incubating, almost certainly the female, which is also the rule among thrushes. I never observed it being fed on the nest by its mate. The nest in which I observed four broods was on the rafter directly under aluminum plates of a roof on which the sun shone during practically the whole of the day. Under these circumstances the temperature at the nest was extremely high and the incubating bird spent most of the time not sitting in the nest but crouching on it, panting with an open bill.

I was able to determine the incubation period only in Brood No. 4. The last egg was laid on May 3, when incubation started and all three eggs hatched on May 15, an incubation period of 12 days.

On March 25, 1952, when the bird was incubating Brood No. 3, a female Glossy Cowbird (*Molothrus bonariensis*) appeared and inspected the rafter with the nest. Its appearance caused a great tumult among the thrushes which chased it away, both of them dive-bombing the cowbird which disappeared as fast as it could. It was certainly only searching for nests of the House Wren (*Troglodytes musculus*) which is its usual host in Surinam and which regularly nests on rafters in the same situation as the thrushes. Other thrushes often took a bath in the gutter near the nest but when coming too near it they were chased away by both birds of the nest.

The nestling period.—The nestlings were fed by both parents and in practically all cases with unrecognized animal food. Once an unidentified berry was brought to them. The excreta of the young were always taken away and dropped at some distance. I never saw them being swallowed. In the beginning of the nestling period the nestlings often were covered by the bird which had just fed them. The parent crouched over them exactly as during the incubation period. In Brood No. 4 this was seen for the last time on May 21, the nestlings then being seven days old.

When both parents arrived at the same time with food one of them waited in the neighborhood of the nest until the other had fed the nestlings. I never noted that one of the birds passed the food to the other or that both were at the nest at the same time. One of them-certainly the male-often arrived singing in flight while carrying food in its bill. The same bird often uttered a few strophes after having fed the young. Both parents customarily perched on a piece of wood near the nest before alighting on it, and also after feeding. It was on this perch that I observed on March 5, 1952, (Brood No. 2) an interesting behavior. After having fed the nestlings one of the birds alighted as usual on the piece of wood when suddenly its mate with food in its bill alighted near it. The first one took fright by the sudden appearance of its mate and took a threatening attitude, flashing both wings, a movement by which the rufous axillaries and under wing coverts became very conspicuous. It was exactly the same attitude described and figured by Dilger (1956. Auk, 73:324) as "double wing flashing" in Catharus fuscescens, but I did not note down whether this thrush tilted one of its feet in this attitude like *fuscescens*.

In only one case (Brood No. 4) was I able to determine the exact fledging period. The nestlings hatched on May 15 and left the nest after 17 days, on June 1. The nestlings having left the nest, were fed for some unknown period, probably by the male only, at least in the latter part of this period, for repairing of the nest for the next breeding cycle started in the same period. In Brood No. 2 the young left the nest on March 6, 7 and 8. Two of them were still being fed on March 15, whereas the repairing of the nest started on March 14.

Bathing.—Grey-headed Thrushes are very fond of bathing either by taking a shower bath in a tropical torrent or the usual bath while standing in a shallow pool of water. Sunbathing is also a regular habit in which the bird lies on its side on the ground with ruffled feathers and widely spread tail and widely open bill, one of its wings stretched to the utmost so that their underside is hit by the direct rays of the sun while it tilts over to the other side.

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