SOME ASPECTS OF THE ECOLOGY OF SPEKE'S WEAVER PLOCEUS SPEKEI (HEUGLIN) IN NAIROBI, KENYA

BY

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SUMMARY

1. From August 1981 to June 1982, 24 nesting colonies of Speke's Weavers were identified and located in a large-scale map of Nairobi. Detailed observations and regular samplings were made in 8 colonies located in 5 different sites. The average density of the colonies was 1.7 km^{-2} and the bird densities were averaging 0.25 birds per hectare. The sizes of the colonies ranged from 20 to 200 nests per tree and were mainly in tall trees of Acacia spp. The species showed preference for isolated trees located in the residential areas and adjacent to busy roads.

2. Food-finding among Speke's Weavers is a communal affair involving both young and adult birds. The importance of various food sources varied monthly but with no clear seasonal pattern. Apart from wild grass seeds, insects and fruits, the weaver also feeds on grain put out as domestic animal feed and human waste food, especially during the breeding period when the birds remain close to their colonies. Changes in the abundance and types of human waste food in the diet of the weaver reflects the changes in man's feeding habits

rather than climate or seasonal changes.

3. The breeding periods of Speke's Weaver in Nairobi coincide with the rains and in the first month of breeding, the rate of nest-building increases with the increase in the number of breeding males and the advancement of the wet season. The rate of nest-building decreases in subsequent months. Social facilitation of nest-building was evident in the colonies of the weaver early in the breeding season.

4. The breeding periods of Speke's Weaver, especially nest-construction and egg-laying, were well synchronized with variations of 3-4 days for each of the two activities. For the breeding periods September-December 1981 and March-June 1982, the mean lengths of the reproductive phases of 8 sample colonies were 77.2 $\pm$ 18.5 and 66.2 $\pm$ 24.0 days respectively. Prolonged rainfall periods lead to an extended breeding period often marked with breaks of minimal breeding activities.

5. Each nest of Speke's Weaver carries an average of 2.1 eggs and 1.81 young, the differences occurring after hatching. The brood-size varied considerably among colonies with the nests in large colonies having larger

broods than the small colonies. The smaller colonies are vulnerable to disturbance and consequently desertions of the nest contents by the parent birds. Nestling mortality in Speke's Weaver colonies was substantial and was attributed mainly to human disturbance of the breeding birds and to the blood-sucking maggots of the Tropical Nest Fly Passeromyia heterochaeta. The maggots cause death to nestlings. The nest-parasites (birds) that lay eggs among those of Speke's Weaver also contribute to the reduction of the breeding success of the Weaver.

6. Speke's Weaver is not an urban species but it has adapted to living in human habitation where it gains access to waste food and probably some protection. The species breeds successfully and competes effectively for food and nesting sites with other ploceids resident in Nairobi. There is no urgent need for its conservation since it is apparently not threatened. However, all Nairobi residents have the obligation to preserve the nesting habitats of the weaver and to minimize its disturbance, particularly at its breeding colonies.