

LIABILITIES		TRUST ACCOUNT AS
Nil.		
Balance, being surplus of Assets over Liabilities . . .	£1,076	2 11
	£1,076	2 11

Estimates of Assets set out on the basis of previous year have been accepted by us; the bank pass books have been examined; the certificates of the Inscribed Stock registered in the name of the Union and in the names of the Trustees, received by us direct from the Registrar of the Commonwealth Inscribed Stock, have been examined by us and are in agreement with the face value figures shown in Balance Sheet and Trust Account.

(Signed) HUGH C. E. STEWART.

(Signed) PHIL. LAIRD.

Hon. Auditors.

Planting Mistletoe Seeds : Unorthodox Methods

By EDITH COLEMAN, Blackburn, Vic.

Mr. P. T. Littlejohns and I are in agreement in our affection for both Mistletoe-bird and mistletoe plant. Few observant people would condemn the latter as wholly undesirable, except in those localities where, due to man's activities, it has increased beyond safety.

Before the white man's disturbance of forest lands mistletoe played an important part in preserving a harmony of flora and fauna. In sparsely-foliaged eucalypts the dense clumps were a ready refuge for small birds when pursued. In flowering time they were 'sipping taverns' for innumerable nectar-loving species, and in fruiting time a veritable orchard for Silvereyes, Painted and Singing Honeyeaters, Mistletoe-birds, parrots and, doubtless, many other birds. They offered, too, fine foraging for gall and other insects, and various species of mistletoe-butterflies and their larvae. Those clumps were little worlds in themselves, as they are to-day on undisturbed forest lands, and as they are in some century-old gum trees in my own garden where, daily, we see their usefulness to birds. Fortunately the work of mistletoe on these old trees is slow, but on wattles and young gums it is all too swift.

Owing to the intensely viscid seed-covering there is little doubt, I think, that every bird which attacks mistletoe fruits has occasionally to clean its bill of an adhering seed, so that each must be regarded as a potential seed planter. Those birds which feed their nestlings on the seeds are, doubtless, the greatest seed disseminators. Excrement sacs are carried 60 or 70 feet from the nest. After their passage through the air they would not be easily dropped, so that

AT JUNE 30, 1950

ASSETS

Commonwealth Government Inscribed Stock (face value)	£1,070	0	0
Balance in State Savings Bank		6	2 11
		£1,076	2 11

(Signed) A. S. CHALK,

Hon. Treasurer.

Audited and found correct,

(Signed) HUGH C. E. STEWART.

(Signed) PHIL. LAIRD.

Hon. Auditors.

some must be wiped on a bough. I cannot agree with Mr. Littlejohns' view that seeds distributed by the Mistletoe-bird "are not deposited by means other than direct lodgment of droppings on twigs and branches" (*Emu*, Oct., 1950). Regarding the Mistletoe-bird's habit of turning this way and that so that its body is sometimes 'along' not across a bough, Mr. Littlejohns says: "On this apparently trivial habit the survival and distribution of the mistletoe depends" (*Wildlife*, Aug., 1948). I think this is too much to claim. A year earlier I had written to Mr. A. H. Chisholm drawing his attention to the fact that, owing to the bird's position 'across' a bough most droppings would fall to the ground, unless they are caught on intervening branches. I enclosed a sketch showing the curious attitude of a Mistletoe-bird which my daughter watched on a gum tree at Eltham. The bird defecated, stretched back its foot and caught the dropping, which it then pecked off and wiped on a branch. This might be regarded as fortuitous had not both my daughter and I seen, at close range, the same thing at Sorrento. In the latter instance the stretched-back foot did not take the dropping, which fell clear on to a twig below.

Although Mr. Chisholm, who consulted Mr. Littlejohns, had not seen anything of the sort, I think some importance should be placed on an action seen twice, in widely-separated localities. Other observers have seen Mistletoe-birds clean themselves of adhering seeds with the bill, or by rubbing their bodies along a bough. These incidents serve to stress the extreme tenacity of the seed covering, so that, even with King Parrots and other parrots which probe the fruit cases and grind up the seeds, an occasional viscid seed would adhere to the outside of the bill—to be wiped off on a bough. On some mistletoe-infected peach trees, Mr. A. H. Hamilton saw silvereyes wiping their bills to free

them of the sticky seeds. Bill-wiping, then, is surely an important factor, in Australia, as in other countries.

Mistletoe-birds have favourite fruiting clumps to which they return to load up after feeding nestlings and removing excrement sacs.* In some instances a tenacious sac will be wiped off in the same tree, and as the adults are feeding themselves they too will defecate. This explains why there are so many infestations on one tree, whilst nearby trees are unaffected. Excrement sacs are distinguished from droppings. One sees scores of the latter on vegetation beneath an infested tree, often consisting of strings of two or three large or five or six smaller seeds.

Mr. Littlejohns' observations appear to have been made chiefly on gum tree mistletoes. There are many Australian species which have been less studied, the fruits of which vary in size, shape and colour, some being orange, red, white, semi-transparent, etc., and, doubtless, the number of mistletoe-loving birds has been as little studied. Of the 550 species of mistletoe, which extend to countries in which no *Dicaeum* exists, it is certain that other birds disseminate the seeds. Why not in Australia? Germinating embryos in hundreds have been seen on telegraph lines in several countries. How did they get there other than by bill-wiping? Certainly not by droppings. Thousands were seen by Gosse on both upper and lower surfaces of sour-sop leaves. How did they become attached to the under surface except by bill-wiping, as the birds moved between the twigs? These observations were made by researchers whose achievements in their various fields entitle them to have their views read with an open mind.

* How often are sacs seen to fall from the parent's bill?

Nocturnal Bird Song.—E. F. Boehm (*Emu*, 50, p. 62) presents a useful basic list of diurnal birds which sing at night, remarking that the list is almost certainly incomplete.

There may be some difference of opinion as to the connotation of the term 'sing,' but I would suggest that at least some of the following species which I have heard at night should be included, namely—Masked Plover (*Lobibyx miles*), Banded Plover (*Zonifer tricolor*), Green-shank (*Tringa nebularia*), Black Swan (*Cygnus atrata*), Musk Duck (*Biziura lobata*), Horsfield Bronze-Cuckoo (*Chalcites basalus*), Koel (*Eudynamis orientalis*), Channel-billed Cuckoo (*Scythrops novæ-hollandiæ*), Pied Butcher-bird (*Craicticus nigrogularis*), Western Magpie (*Gymnorhina dorsalis*).—ERIC H. SEDGWICK, Leonora, W.A., 20/9/50.