

'ANTING' BY THE SONG SPARROW

BY MARGARET M. NICE AND JOOST TER PELKWKYK

STRESEMANN (1935a, 1935b) and McAtee (1938) review the published instances of the curious phenomenon that several birds have been observed bathing in ant hills, or seizing ants in their bills and rubbing them through their feathers or over their legs. It is presumably an instinctive action that may have an antiparasitic function, or may serve in some way in the care of the feathers. Occasionally other objects are used by tame birds in the same manner—beer, lemon flesh and juice, orange juice, vinegar, amphipods, mealworms, etc. This 'anting' has been noted in six species of the Corvidae, four of the Timeliidae, two of the Sturnidae, two of the Turdidae (genus *Turdus*) and in a young Dipper (Cinclidae) (Heinroth, 1924-32, 1: 32). A Blue-winged Warbler (Compothlypidae) was observed taking a dust bath in a "black ant hill" (Wright).

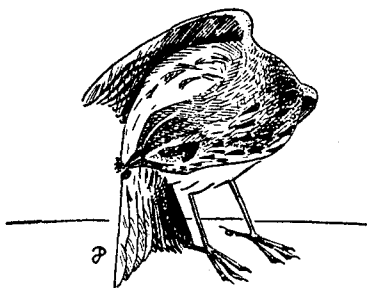
Steiniger (1937) and Palmgren (1937) have done a number of feeding experiments with birds most of which showed an aversion for ants. They come to the conclusion that as a rule ants are protected by their taste. These experiments were done with the European Robin (*Erithacus rubecula*), Bluethroat (*Luscinia svecica*), European Redstart (*Phoenicurus phoenicurus*), Garden Warbler (*Sylvia borin*), Whitethroat (*Sylvia communis*), Blackcap (*Sylvia atricapilla*), Pied Flycatcher (*Muscicapa hypoleuca*), Spotted Flycatcher (*Muscicapa striata*), Blue Tit (*Parus caerulea*), Song Thrush (*Turdus eritorum philomelos*), Magpie (*Pica pica*) and Carrion Crow (*Corvus corone*). The only species that took ants readily were the two flycatchers (Muscicapidae). Palmgren does not mention 'anting,' while Steiniger found it only with the Peking Nightingale (*Leiothrix lutea*) (Timeliidae). He suggests that the function might be to rub off the acid taste. He observed that the ants were eaten after being used for 'anting,' a fact seldom mentioned in other descriptions. The Song Thrush, Magpie and Carrion Crow are noted by McAtee as birds that occasionally 'ant.'

Among the Fringillidae we have found that the Song Sparrow (*Melospiza melodia*) 'ants.' So far as we know there are no observations of 'anting' by Song Sparrows or other Fringillidae in Nature, but in three hand-raised males, taken from the nest at the age of five and six days, 'anting' was observed several times.

The first evidence was seen when B was 36 days old; he picked up

a medium-sized ant and appeared to 'ant' himself just once, rubbing it along his wing. Then the ant was eaten. Similar behavior was seen with A at 37 days.

It was not until the following spring that Y was offered a small ant; this he dropped and picked up again, repeating the process several times and finally eating the insect.



TEXT-FIG. 1.—Song Sparrow, Y, rubbing an ant on his tail.

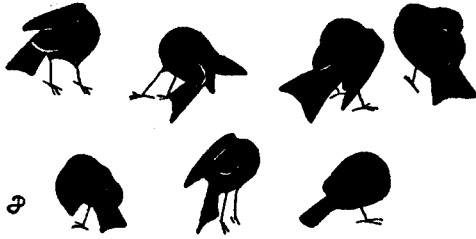
The birds have had staghorn sumach (*Rhus typhina*) branches with berries on them available at all times. Twice Y has 'anted' with these berries.

November 24, 1938.—Y is 'anting' with a sumach berry, hunching himself and trying to put it at the base of his tail.

July 25, 1939.—Y is on the floor, 'anting' himself with a sumach berry; he hunches about in a very queer attitude. He has lost the inner rectrices. He is evidently trying to rub the berry on his feathers. He turns about, nearly sitting on his rump—a most ridiculous position—and tries to rub the berry on his tail-feathers. He then goes up on top of the sumach branches and tries to rub berries under his wings.

On October 9, 1939, a large black ant, about 8 mm. long was given to Y. He started to eat it, then dropped it and began to 'ant,' picking it up and dropping it several times, trying to put it—or at times apparently the acid from it—under his wings, on his legs, or along his tail, hunching up in the curious characteristic attitude, almost sitting down on his tail.

On May 30, 1940, we obtained a number of ants (*Formica rufa*) about 6 mm. in length, and offered them to Y in a cardboard box. He picked one up, crushed it and at once rubbed it under his wing. He repeated the process a number of times, sometimes momentarily rubbing the ant on the base of the tail, but not assuming as extreme postures as on July 25 and October 9. Some of the ants were eaten. Sketches were made of the characteristic attitudes (Text-figs. 1, 2).



TEXT-FIG. 2.—Attitudes assumed by Y when 'anting.'

These Song Sparrows have never had any parasites. Since these birds were hand-raised, the 'anting' appears to be inborn. Though some of the ants were eaten after being used for 'anting,' we think that Steiniger and Palmgren are right that ants on the whole are protected by their taste. 'Anting' appears to be a relatively rare phenomenon.

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Chicago, Illinois