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THE EGG-LAYING HABITS OF SOME OF THE ACRIDIDÆ (ORTHOPTERA).

BY NORMAN CRIDDLE, DOMINION ENTOMOLOGICAL LABORATORY, TREESBANK, MAN.

The egg-laying habits of the Orthoptera have not received as much attention as one might expect, considering the economic importance of many of the species involved. Even Riley, with all his remarkable researches, failed to observe that a locust's abdomen curls outwardly instead of under the insect when ovipositing and, strange as it may seem, his illustration has been accepted, until very recently, as correct. Much has yet to be learned regarding the exact number of eggs deposited by the various species, as well as the number of egg masses produced in a season, time of oviposition, etc. In the present paper an attempt has been made to show how some of our common Manitoba species proceed in the task of egg-laying and how the work is completed. So far as the notes presented below are concerned it will be seen that the species of Acrididæ, which oviposit in the soil, may be divided into two groups according to their method of covering the egg-sacks; the first of these comprising the Œdipodinæ, using the hind legs for that purpose, while the second—the Locustinæ—make use of the abdomen and ovipositor to attain the same end. These divisions, based upon habits, are, of course, subject to verification by the study of other species, but as they fall into natural groups there is reason to suspect that the rule will hold good, at least in those species which make an attempt to cover the eggs at all.\*

With reference to the general attitude of locusts while oviposit-

Kellog and Gough—Rept. on Great Invasion of Locusts in Egypt in 1915 state that Schistocerca peregrina egg masses can be located while fresh by means of the white froth showing above the ground, hence it is probable that no covering is attempted in this species.

<sup>\*</sup>Hancock in his Tettigidæ of North America has related, with some detail, the egg-laying habits of Acrydium (=Tettix) also of *Tettigidea* in which strangely enough, the former is said to cover the eggs by use of the hind legs, while the latter uses the ovipositor.