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AN UNUSUAL CUTWORM OUTBREAK¹

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Early in August, 1948, a report was received at the Dominion Entomological Laboratory, Agassiz, B. C., of a serious cutworm outbreak on Nicomen Island. This island, composed entirely of alluvial land, lies on the north side of the Fraser River east of Mission and is some 7 miles long. It was almost entirely covered with water to a depth of many feet during the disastrous flood in June, 1948, and all crops were destroyed.

Investigation showed a large, striped, greenish caterpillar to be present in epidemic numbers, feeding on the scanty vegetation that was then springing up as the land dried. The larvae were in various instars, but the majority were fully fed.

As the insect was not recognized, material was collected for rearing. The adults emerged throughout September, 1948 and were identified as *Dargida procincta* (Grote).

Search of literature showed no record of this insect as a pest in British Columbia, but W. Downes, lately in charge of the Dominion Entomological Laboratory at Victoria, has since informed me that, in 1928, a serious outbreak occurred in the Alberni, Comox, and Cumberland areas, where, chiefly on bottom lands, clover, alfalfa, young oats and couch grass were severely injured. J. R. J. Llewellyn Jones of Cobble Hill, Vancouver Island, also told me that he captures an occasional adult in most years.

Later in August, outbreaks were also reported in the Glendale, Matsqui, and

Hatzic areas, where similar flood conditions had obtained. The total area covered by the outbreak of this uncommon species was therefore some 200 square miles.

The larvae were found to feed on a variety of plants, chiefly grasses, oats, and corn; but the new growth of dandelion, plantain, and other weeds that had survived a three-week submergence were fed upon until the newly sown grain crops came through the mud. In some fields 25 per cent of the oat and corn seedlings were devoured. Feeding was general during daylight hours, this species having somewhat the habits and appearance of an armyworm.

A 3 per cent D.D.T. dust proved an effective and practical control.

Two interesting facts concerning the life-history of this species were noted. The first is the sudden and unexplained appearance of the larvae in numbers sufficiently large to give rise to an epidemic, for this species is seldom seen in an average year. The second is the complete confinement of the outbreak to flooded lands. It was particularly noticeable on Nicomen Island that even small ridges above flood level were not infested. In the latter connection it is interesting to refer to the observations made by Professor Spencer (1947), when it was noted that the moths of this species oviposited only in soil being soaked by a garden hose and were uninterested in the garden beds not being watered. Evidently only water-soaked land is chosen by the adults for egg-laying.

LITERATURE CITED

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