under suitable conditions, *B. amylovorus* may cause infection following penetration through stomata. In the light of these results it appears that the rôle of insects in the dissemination of fireblight is less important than was earlier believed and needs to be reevaluated. The possibilities of using the excision method as one part of a successful control program seem to be considerably enhanced. Strong potentialities appear to lie in the use of chemical treatments designed to inactivate such primary inoculum as escapes the excision process. Experiments on this phase of the problem are in progress but the results are, as yet, inconclusive. The investigation is being continued, and the results will be reported in more detail in later papers.

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FURTHER OBSERVATIONS ON SCHISTOSOME DERMATITIS IN THE UNITED STATES (MICHIGAN)[1]

IN a recent publication[2] I discussed the production of a dermatitis by the penetration into the human skin of a non-human species of schistosome cercaria, *Cercaria elvae*. This experimental schistosome dermatitis was identified as the same condition as that occasionally contracted by wading at certain places near the University of Michigan Biological Station on Douglas Lake, Michigan. It was suggested that this type of dermatitis might be widespread and might be produced by other schistosome cercariae besides the one implicated experimentally. Since the publication of this paper some new evidence has been obtained on both these points.

A popular discussion of this subject based on the original paper was syndicated by a writer of health articles and published in May in a number of newspapers throughout the United States. Following this, a number of letters were received asking questions or volunteering information on various sorts of skin conditions. Ten of these letters gave accounts of a definite dermatitis contracted by the contact of some part of the body with water, in most cases in wading or swimming. All these reports were alike in recounting the extreme itching and the spontaneous disappearance of the dermatitis after a few days or at most several weeks, depending on its severity. In certain of the cases the letters report that physicians consulted were unable to give a diagnosis. Rather detailed descriptions were given in some cases of the development of papules. The reports of the "water itch" which these ten individuals identified as the same as the schistosome dermatitis were from widely separated places, including in the United States the states of Iowa, Washington, Illinois, Florida, Minnesota, Wisconsin and Michigan, as well as Haiti and France. Whether these records really represent accounts of schistosome dermatitis is difficult to determine. It is, however, very suggestive, when an eruption of a papular nature, which produces extreme itching and disappears in a few days or a week is contracted from wading or bathing in shallow water where the bottom is muddy. Some of these records were of such interest that they are being followed up further so that further details will not be given in this preliminary note. I would be glad to hear of further cases of dermatitis contracted from wading or bathing under conditions which might make possible infection from cercariae escaping from snails.

It has also been possible this summer to produce the dermatitis experimentally by placing on the human skin three further species of schistosome cercariae. One of these was identified as *Cercaria douthitti,* which was originally reported from specimens of *Lymnaea reflexa* from a small pond in the suburbs of Chicago, Illinois.[3] This cercaria is present although not common in *Lymnaea stagnalis appressa* and *L. stagnalis perampla* from the shores of Douglas Lake. A few specimens of *C. douthitti* placed on the skin of two volunteers produced the same kind of lesions as those produced by the penetration of *C. elvae*. Two other species of schistosome cercariae which resemble *C. elvae,* but differ in certain definite and easily distinguished characters were found during this summer. Since these cercariae are being studied by one of the research students at the Biological Station any description of them will be reserved until later. The important point here is that both of these cercariae penetrated into the human skin and produced schistosome dermatitis. This means that four of the five species of schistosome cercariae which have been found in the region of Douglas Lake in the last two summers have been shown to penetrate into the human skin and to produce a definite schistosome dermatitis. This gives support to the view expressed earlier that this condition is probably rather widespread and may be produced by a variety of cercariae of this group.

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[1] This paper is a joint contribution from the University of Michigan Biological Station and the Department of Helminthology of the Johns Hopkins University School of Hygiene and Public Health.

[2] Cort, W. W., "Schistosome dermatitis in the United States (Michigan)." *J. A. M. A.*, Vol. 90, pp. 1027–1029 (March, 1928).

[3] Cort, W. W., "Larval trematodes from North American fresh-water snails." Preliminary report. *Jour. Parasit.*, 1: 65–84 (1914).