

NOTES ON PARASITES FOUND IN FROGS IN THE VICINITY OF
ST. PAUL, MINN.

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(Abstract.)

Our knowledge of the parasites of even the commonest animals is very incomplete. Examinations of all the organs and at all seasons of the year and extended over a period of several years have never been made except, possibly, for a few of the domesticated animals where the information possessed an evident and immediate utilitarian bearing. Such studies of a number of common and abundant animals are much to be desired. If a body of such information were available it would be of great service to students of the trematodes and very likely make it possible to complete many life histories, only fragments of which are known at the present time. The present paper is a first step in an attempt to do this with reference to the common frogs in the neighborhood of St. Paul. Twenty-one frogs were examined in June, seven in September and nine in November. These numbers are found to be too small for anything but a preliminary survey of the ground and larger numbers will be examined next year. The walls of the cœlom, particularly in the dorsal and anterior regions, are infected by nearly mature encysted individuals of *Clinostomum marginatum*, Rud. This form has been reported hitherto only from fish and fish-eating birds. The pericardial cavity, especially in frogs during June, was found to contain oval cysts, sometimes grouped in masses, each cyst containing a distome so immature that its generic affinities cannot be determined from the data furnished by a study of its structure. It may turn out to be a missing early stage of some trematode whose later stages are already known. The urinary bladder in a considerable fraction of the frogs examined harbors a species much like, if it is not identical with, the *Gorgodeda attenuata* which Stafford has described from a similar location in the frogs of Canada. A member of the Amphistomidæ occurs occasionally in the urinary bladder but is more characteristically a parasite of the rectum, where it is found at all seasons. In one instance *Cephalogonimus* was found in the rectum and small intestines. In a few cases a

cestode was found in the small intestine, also in the coelomic cavity beside the small intestines and in cysts on the surface of the liver. The lungs contain *Distomum lanceolatum* in a large percentage of cases and a nematode also in many instances.

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