Life History of *Philophthalmus gralli* (Digenea: Philophthalmidae) in Azraq Oasis, Jordan

By

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ABSTRACT

A total of 3500 Melanoides tuberculata snails collected from Azraq Oasis were examined for infection with the cercaria of Philophthalmus sp. during the period from June 1984 to July 1985. The overall infection rate was 1.0%. The metacercariae of Philophthalmus obtained from M. tuberculata were excysted and inoculated around the eye orbit of one day old chicks. Mature flukes were recovered 40 days post-infection and identified as Philophthalmus gralli.

The growth of P. gralli was studied experimentally by inoculating 10 excysted metacercariae around the right eye orbit of 47 one day old chicks. The growth rate was slow during the first three days (flukes did not exceed 0.30mm in length), then it became rapid (reaching 2.70mm long) until about the 24th day. This was followed by low growth rate during which the flukes grew from 2.70mm on the 24th day to 2.90mm on the 40th day. 5-30% of the flukes were found in the left eye.

The development of P. gralli was studied experimentally. A total of six stages were recognized: Metacercarial or non-differentiation stage aged up to five days; Gonadal differentiation stage from six to 11 days; Preovigerous stage from 12 to 13 days; Ovigerous stage from 14 to 24 days; Embryonated larva—Stage I from 25 to 60 days, and Embryonated larva—stage II in 60 days old or more.
It was found that the water geese (Anser sp.) in the pool of North Azraq Pumping Station act as a natural definitive host for P. gralli.