adult stage and contains much less than the male is explained by the utilization of lipids for egg development is the main reason attributed to the low level[1]. This study shows that lipids are obtained and synthesized during the fifth instar larval period and are mobilized and utilized during the pupal and adult phase of *Chilo partellus*.

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LABORATORY EVALUATION OF CYCLOPICIDAL ACTIVITY OF CYPERMETHRIN

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THE efficacy of cypermethrin, a synthetic pyrethroid, was assessed against cyclops (*Mesocyclops leuckarti*), the vector of guinea worm disease, under laboratory conditions.

Species of cyclops were collected from the Powai lake, Bombay by a mesh sieve (no. 250 μm). They were examined morphologically under bionocular microscope and females of *M. leuckarti* were separated for the experiment. Technical cypermethrin (1 % EC) was supplied by the National Organic Chemical Industries Limited, India. Experiment was carried out in petridishes containing batches of 20 adult cyclops in 10 ml solution per petridish at the temperature of 26 ± 2°C. Mortality was recorded after 24 hr. Stock solution of cypermethrin (one ppm) was made from EC 1 %. The serial dilutions were prepared in water according to the requirements. In each test one batch of cyclops was kept in petridish containing water to serve as control. Four replicates were used for each concentration and control.

The results of susceptibility tests with *M. leuckarti* against cypermethrin, summarized in table 1 show that cypermethrin reveals cyclopicidal activity at the conc. 0.005 ppm.

Table 1 *Biological efficacy of cypermethrin against Mesocyclops leuckarti*

Concentration in ppm	No. of cyclops died after 24 hr	Mean per cent mortality
0.005	80	100
0.0025	47	58.75
0.00125	17	21.25
0.0005	3	3.75
Control	Nil	Nil

* For each concentration of cypermethrin eighty cyclops were exposed in four petridishes each with 20 cyclops. The total number of cyclops exposed for control was 80.

Cypermethrin is toxic to fish under laboratory conditions. However, its toxicity under field conditions is likely to be low, though experimental data to support this is not available at this stage. Considering its high efficacy as cyclopicide and low mammalian toxicity it is recommended that the compound should be evaluated in the field to assess its utility in cyclops control.

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