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Research Paper

REPRODUCTIVE EFFICIENCY OF *NESOLYNX THYMUS* (GIRAULT) AS INFLUENCED BY HOST SPECIES – *EXORISTA BOMBYCIS* (LOUIS) AND *MUSCA DOMESTICA* L.

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ABSTRACT

A host of factors *viz.,* age and size of host, age and size of parasitoid, availability and quality of host and temperature are reported to influence the reproductive efficiency of parasitoids. *Nesolynx thymus* Girault (Hymenoptera: Eulophidae) is one among 20 hymenopteran parasitoids reported to attack the uzi fly, *Exorista bombycis* (Louis) (Diptera: Tachinidae), which in turn infests the silkworm, *Bombyx mori* L. accounting a cocoon yield loss of 10-20 %. *N. thymus* is the recommended biocontrol agent for the management of uzi fly. The parasitoid can be mass produced in the insectary for field release on the puparia of house fly and uzi fly. In the present study, an attempt was made to record the influence of parasitoid age on its reproductive performance by providing puparia of 3 day-old *E. bombycis* and 2 day old *Musca domestica*, separately at the parasitoid : host ratio of 1:4 and 1:20, respectively to different age *N. thymus* female (0-10 day-old). The observations on number of puparia parasitized, developmental duration, parasitoid recovery per pupa, progeny production and sex ratio were recorded/calculated. No significant difference was observed among the parameters when *E. bombycis* puparia were offered. However, parasitization and progeny production decreased significantly with age of *N. thymus* when developed on puparia of *M. domestica*. Sex ratio was influenced by parasitoid age when it was multiplied on primary host (uzi fly puparia). However, the reproductive performance decreased with its age when multiplied on secondary host (house fly puparia).

Key words: *Exorista bombycis*, *Musca domestica*, *Nesolynx thymus*, parasitoid age, reproductive performance.