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## Egg maturation dynamics of the parasitoid *Microplitis rufiventris*: starvation speeds maturation in early life

Esmat Hegazi<sup>1</sup>, Wedad Khafagi<sup>2</sup> and Fredrik Schlyter<sup>3</sup>

<sup>1</sup>Department of Entomology, Faculty of Agriculture, Alexandria University, Egypt <sup>2</sup>Plant Protection Research Institute, Egypt <sup>3</sup>Department of Plant Protection Biology, Swedish University of Agricultural Sciences, Sweden

The number of mature eggs carried by a female parasitoid at any given moment (egg load) is a fitness-related parameter affecting reproductive potential and impacting upon host population dynamics. *Microplitis rufiventris* Kok. (Hymenoptera: Braconidae) is a solitary koinobiont endoparasitoid wasp of several noctuid pests including *Spodoptera littoralis*. The number of mature eggs carried by females at emergence is≈50.Egg maturation rate is strongly affected both by feeding status and access to host larvae. In early adult life, egg maturation rates are lower for 6 - 72 h in fed wasps compared to food deprived (most effect sizes, d, around). When given access to hosts, honey-fed wasps live ≈9 days with high lifetime fecundity (226). The total realised fecundity is positively affected by feeding status, where water fed and starved females have140 and 107 eggs (d >1), respectively. Egg resorption is most pronounced in the later life of the female. The results suggest, in addition to confirming the effect of honey-feeding on total fecundity, that fecundity of starved wasps includes rapid egg maturation early in life, which potentially improves biocontrol under inundative release.

eshegazi@hotmail.com