BEHAVIOUR OF THE PARASITOID *DIGLYPHUS ISAEA* (HYMENOPTERA: EULOPHIDAE) OF THE POTATO LEAFMINER *LIRIOMYZA HUIDOBRENSIS* (DIPTERA: AGROMYZIDAE)

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Liriomyza huidobrensis (Diptera: Agromyzidae), has become one of the major pests of agricultural crops; potato, beets, leeks grown in the up country region Sri Lanka since 1996. *Diglyphus isaea* (Hymenoptera: Eulophidae), a larval parasitoid, was introduced from the Netherlands in 1997 to control the *L. huidobrensis*. A need has arisen to study the biology and behaviour of *D. isaea* in the new environment to help enhance the efficacy of the parasditoid in controlling the pest. Parasitoids for the experiment were obtained on emergence from *L. huidobrensis* infested potato crop in Nuwara Eliya.

D. isaea could be kept alive for 14 a days in refrigerator at 4 C^0. Its ability to adapt to the new environment and to the host was seen by the efficiency in selecting ovipostional sites on the leafminer infested potato leaves. *D. isaea* selected the early third instar larvae for oviposition. Petri-dish and the capsule methods were designed to study the parasitic behaviour of the parasitoid. Petri-dish method was found to be the best method to study the level of parasitism. The highest mean percent parasitism (58.3) was observed when the ratio of host larvae to parasitoid adult female was 2:1 at the mean maximum and the minimum temperatures of 17^0 C, 20.5 C^0 respectively. A lower mean percent parasitism, level of 25 was obtained when kept at a ratio of 1:1 at the same temperatures respectively. The capsule method is very effective and convenient to study the ovipositing behaviour using one adult female parasitoid.