

Abstract

Objective: This study was carried out to evaluate the biological attributes that is, parasitism, adult progeny production, and sex ratio of 21 strains of a native egg parasitoid *Trichogrammatoidea* sp. nr. *lutea* Girault (Hymenoptera: Trichogrammatidae) collected from *Plutella xylostella* Linnaeus (Lepidoptera: Yponomeutidae) in coastal Kenya, reared on *Corcyra cephalonica* Sainton (Lepidoptera: Pyralidae) in the laboratory. **Methods:** A total of 21 accessions of *T.* sp. nr. *lutea* were assembled from the Kenyan coast (Shimba hills and Muhaka sites). Preliminary experiments to select the best performers among the 21 strains, based on biological attributes such as adult longevity, parasitism, emergence, adult progeny produced and progeny sex ratio were conducted under laboratory conditions (temperature of $27\pm 2^{\circ}\text{C}$ and $65\pm 10\%$ RH). **Results:** There were significant differences ($P < 0.05$) in all biological attributes studied among the strains. The overall mean adult longevity was 9.31 days. Parasitism, emergence and sex ratio per adult female were 20.2%, 75.56% and 37.77% respectively. The wasp age influenced all the attributes tested significantly ($P < 0.05$) of *T.* sp. nr. *lutea*.

Conclusion: Four accessions (SH-1 and 4, MK-1 and 3) were selected and recommended from this experiment based on adult longevity, parasitism, adult progeny produced and sex ratio for further evaluation. The results from this study will be useful for mass rearing purposes as well as for future field release programmes.