

**Effect of Body Size on Fecundity and Longevity of the Mugwort
Leaf Beetle: *Chrysolina aurichalcea* Mannerheim
(Coleoptera: Chrysomelidae)**

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ABSTRACT

Adult leaf beetle, *Chrysolina aurichalcea*, were collected from the field were monitored for oviposition and mortality to determine if correlations existed between adult parameters and fecundity or longevity. Adult size was not a good indicator of fecundity, total oviposition events and number of eggs laid per day. Adult size of females showed very low correlation with the average number of eggs laid per day. However male adult size was a marginal indicator of the number of eggs laid per day. Longevity could be a more important factor affecting fecundity for adult females of *C. aurichalcea* rather than adult size.

Key words: Body size, *Chrysolina*, fecundity, longevity, oviposition

INTRODUCTION

The mugwort leaf beetle, *Chrysolina aurichalcea*, is a chrysomelid leaf beetle of Transpalearctic distribution (Lee *et al.*, 2001). The species is univoltine, has a peculiar life history with its active period in cool seasons such as early spring and late autumn (Fujiyama, 1986). Larvae feed on the leaves of *Artemisia princeps* from the middle of March to April; pupate in the soil in late April and May and new generation adults emerge in late May. Adults feed on the leaves of *A. princeps* from June to July. In late July they undergo diapauses and adults reappear from middle of September to November to mate and lay eggs clustered on the ground or adhered to dead leaves near the host plant (Takizawa, 1998).

Data from field collections and preserved specimens from our laboratory showed that sampling size of this chrysomelid leaf beetle varied from 6 to 13 individuals.