Coelomera lanio (Dalman) (Coleoptera: Chrysomelidae) belongs to a family with many known agricultural pests and is the most important defoliator of Cecropia spp. (Cecropiaceae) trees (Jolivet 1987). The genus Coelomera has 35 known species, but biological aspects are known for only about 20% of them (Jolivet 1989), including C. lanio (Silveira 1996). The literature includes reports of two species of natural enemies of C. lanio (Parker et al. 1951, Jolivet 1987).

We aimed to identify natural enemies of C. lanio through periodic visits to forest fragments in the Universidade Federal de Viçosa campus, in Viçosa, State of Minas Gerais, Brazil, during 1994 and 1995.

Egg masses and larvae of C. lanio were brought to the laboratory, where natural enemies obtained from this insect were reared. Predators were observed feeding on larvae of this beetle in the field. In addition, larvae were reared in untreated soil (collected under Cecropia trees) to obtain pupae. All laboratory work was done under photophase, temperature and relative humidity of 12 hr, 24.1 ± 0.1°C and 67.7 ± 0.6%, respectively.

Adults of Oplomus catena (Drury) (Heteroptera: Pentatomae) were found feeding on larvae of C. lanio in the field, the first report of this association. Under laboratory conditions, O. catena fed on larvae of all instars but not on adults of C. lanio. Grazia and Hildebrand (1987) found O. catena feeding on larvae of Ac tinote pellenea (Lepidoptera: Acraeidae). This suggests that O. catena is a generalist predator such as Podisus nigrispinus (Dallas) (Zanuncio et al. 2001), Supputius cincticeps (Stal) (Zanuncio et al. 1996/97), Brontocoris tabidus (Signoret) and Podisus rostralis Stal (Molina-Rugama et al. 1998) (Heteroptera: Pentatomidae).
*Oplomus catena* first instar nymphs do not show predatory habits, as reported for other species of this family (Zanuncio et al. 1994), although they prey on larvae of *C. lanio* during their other four instars. Other *Oplomus* species are predators of several agricultural pests, including some chrysomelids, during egg, larva and adult stages (Drummond et al. 1987, Romero-Napoles 1990). For this reason, additional studies on *O. catena* as a possible biological control agent of *C. lanio* are necessary.

Adults of *C. lanio* were not found on *Cecropia pachystachya* Trec. trees harboring the ant *Azteca mülli*eri Emery (Hymenoptera: Formicidae). This ant is known to protect *Cecropia* spp. trees against herbivores (Decker 1936). Besides feeding on Mullerian bodies, this ant also nests in naturally hollow stems of these trees. The competition for territory and for feeding on Mullerian bodies of these trees between *C. lanio* and *A. mülli*eri was expected because this was reported by Andrade (1984), Jolivet (1987) and Rocha and Bergalho (1992) for *Coelomera raficor-nis* Baly.

Fourteen egg masses of *C. lanio* collected in the field showed 93.0% parasitism by microhymenoptera (Eulophidae). A total of 81.0 ± 23.2 egg parasites were found for each *C. lanio* egg mass which had 129.2 ± 2.4 eggs with five to 277 wasps emerging from each egg mass. Although this parasitoid species was not identified, Parker et al. (1951) reported parasitism of *C. lanio* eggs by a *Tetrastichus* species in the region of Viçosa. Recently laid eggs of *C. lanio* exposed individually in the laboratory to this parasitoid resulted in an emergence of up to two wasps per egg of this beetle. Based on the viability and number of eggs per egg mass of *C. lanio* reported by Silveira (1996), parasitism of this bug by eulophid species should reach 46.4% in field conditions. This value is higher than that found for the parasitism rate of a *Tetrastichus* species on eggs of the chrysomelids *Xanthogaleruca luteola* (Müller) and *Leptinotarsa decemlinata* (Say), which was 44.9% and varied from 15.5 to 31.1%, respectively (Williams 1987, Hamerski and Hall 1988). Other reports of parasitism by species of Eulophidae on eggs of chrysomelids of agricultural importance were made by Logan et al. (1976), Hall and Johnson (1983) and Dreistadt and Dahlsten (1991) and reviewed by Selman (1994).

Larvae of *C. lanio* collected in the field and reared in the laboratory showed parasitism by a Tachinidae (Diptera) fly species that pupated inside the body of the host and emerged as adults. Another tachinid, *Lydellothelaira collaris* Ths., was reported by Parker et al. (1951) in *C. lanio*, in Itaquaquecetuba, State of São Paulo, Brazil. The importance of this group of flies for biological control of Chrysomelidae species was also reported by Dolgin (1978), Tamaki et al. (1983), Loughran and Ragsdale (1986) and Charlet (1992).

Larvae, pupae and adults of *C. lanio* in contact with soil collected under *Cecropia* spp. trees were infected by *Beauveria bassiana* (Bals.) Vuill. (mitosporic fungi). Since larvae of *C. lanio* without contact with such soil were also infected by *B. bassiana*, it is possible that transmission of this fungus occurs through *Cecropia* leaves. On the other hand, *Metarhi-zium anisopliae* (Metsch.) (mitosporic fungi) was only found associated with last instar larvae and pupae of *C. lanio* that had contact with soil from under *Cecropia* trees. The natural occurrence of fungi such as *B. bassiana*, *M. anisopliae* and other species in the soil was reported by Tigano-Milani et al. (1993) in different regions of Brazil. The occurrence of these fungi as natural enemies of Chrysomelidae species of agricultural importance was also found by Anderson et al. (1988), Anjos et al. (1990) and Fargues et al. (1994), but this is the first report of these species associated to *C. lanio*.

The six natural enemy species of *C. lanio* found in the region of Viçosa shows that they should be evaluated for biological control programs against this pest. Also the relative importance of the various natural enemies of *C. lanio* should be better studied. The eulophid parasitoid and the pentatomid predator *O. catena* are apparently the most promising agents for programs of biological control of *C. lanio*. 

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due to their capacity of attacking egg masses and larvae, respectively, of this beetle.

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