

*H. antonii*. In Cacao plantation with well populated of black ants and malybugs, the number of *H. antonii* were considerably lower. *H. antonii* will immediately stop feeding and the adults will be interrupted during oviposition at the slightly disturbance by black ants. Therefore, when *H. antonii* is frequently disturbed they gradually become starved and produced few eggs.

*Key words:* *D. tuberculatus*, *H. antonii*, Mealybugs, Cacao

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**BIOLOGICAL CONTROL OF *Helopeltis antonii*  
(HEMIPTERA: REDUVIIDAE) TOWARD  
SUSTAINABLE AGRICULTURE**

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*Helopeltis antonii* is a serious pest on Cacao plantation that feed mainly on pod and young leaves. Crop losses caused by *H. antonii* have been calculated to be about 20 % of the yiled. Sybthetic insecticides have been used satisfactorily to control this [est. However, it has been known that not all chemical substances have always been used correctly and some of them are particularly highly toxic. It has caused of resistance phenomena, very wide spread pollution and sometimes caused serious in balances within ecosystem. Biological control isa methodwhich can be utilized to over come these problems. Tha cacao black ant *Dolichoderus tuberculatus*, has been proven as a useful insect in controlling *H. antonii* (Roepke and van der Goot, 1908). The aim of this study was to determine the types of nests which is suitable for natural breeding of *D. tuberculatus* and to study *D. tuberculatus* as useful insect for controlling *H. antonii* at Cacao plantation. The result showed that the coconut leaves nests was the most suitable nests for breeding *D. tuberculatus* at cacao plantation and *D. tuberculatus* has proven as a beneficial insect to protect cocoa pods against *H. antonii*.

*Key words:* *D. tuberculatus*, *H. antonii*, Cacao