

## RESEARCH NOTE

**NETTED LADYBUG, *Heteroneda billardieri* Crotch  
(Coleoptera: Coccinellidae: Coccinellini), A POTENTIAL  
PREDATOR OF MANGO LEAFHOPPERS  
IN THE PHILIPPINES**

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Ladybird beetles, commonly known as predators to a wide range of insect pests, feed on aphids, mealybugs, thrips, scale insects, whiteflies, leafhoppers, planthoppers, 1st and 2nd instar lepidopterous larvae, mites and even downy mildew fungus. During the summer months of March and April 2004, a number of lemon-yellow beetles with black netted markings were collected on mango in Laguna area. The beetle was identified as *Heteroneda billardieri* Crotch (Fürsch, 1990) and was found to be feeding on mango leafhopper, *Idioscopus clypealis* (Lethierry). The ladybird beetle was also recorded in the catalogue of Schultze (1915) as *H. reticulata* with *billardieri* as synonym. Bielawski (1957), on the other hand, provided a short description and information on distribution in German for *H. reticulata*. However, Fürsch (1990) produced a list of valid genera and subgenera of Coccinellidae placing *H. billardieri* as the valid specific epithet. Studies on the ecology and biology of the predator will be undertaken.

*Heteroneda billardieri* Crotch, 1871.

(Figure 1)

*Heteroneda billardieri* Crotch, 1871

*Heteroneda reticulata* Fabricius, 1801; Muls, 1851; Crotch, 1874.

*Coccinella reticulata* Fabricius, 1801

Description : Adult male 5.2 - 5.5 mm and female 6.2 - 6.8 mm. Body glabrous; lemon-yellow. Pronotum with anchor-like marking from tip to base. Elytron lemon-yellow with black lines resembling network pattern (Fig. 1a and b). Postcoxal plates on 1st abdominal sternite complete.

Male Genitalia : Siphon 2.7 mm; longer than paramere; end of apex with pointed bifid structures (Fig. 1c). Parameters or tegmen as in Fig. 1d.

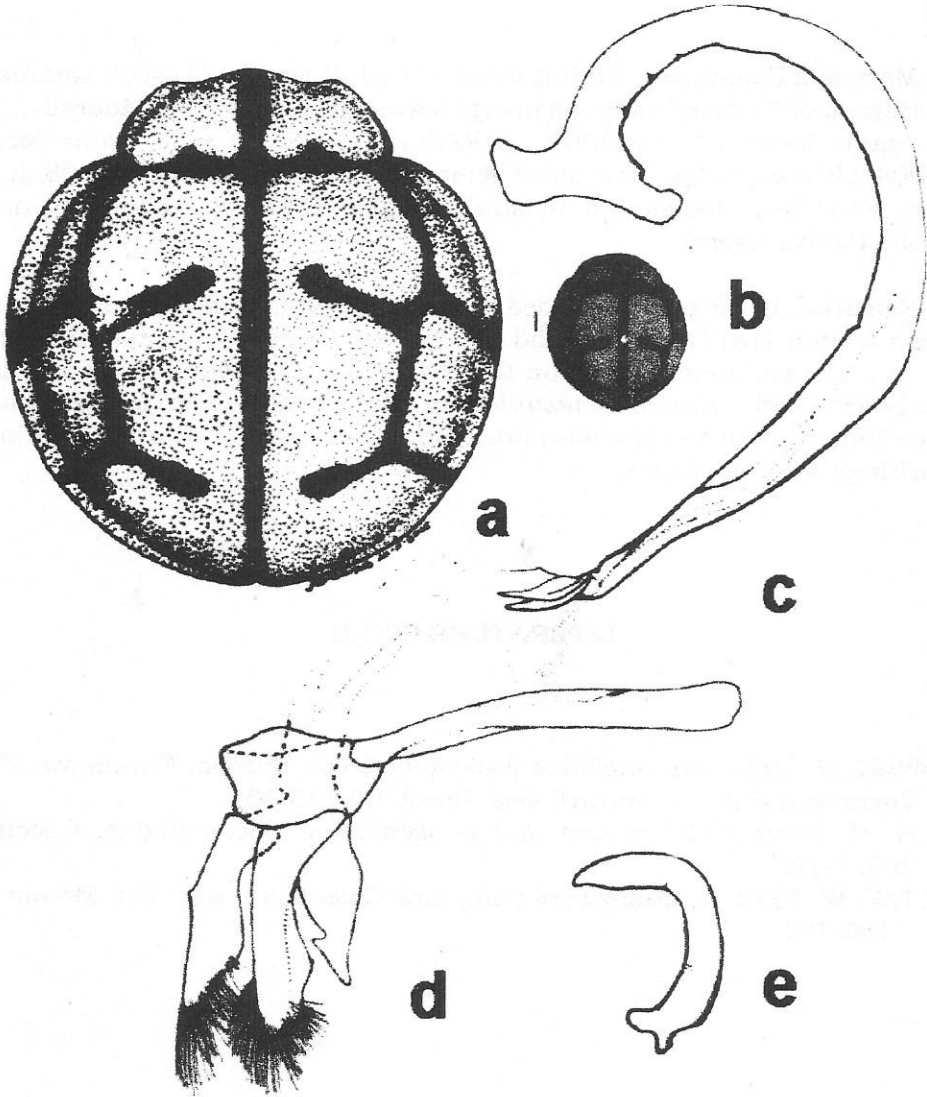


Figure 1. *Heteroneda billardieri* Crotch. a. habitus; b. habitus (colored specimen) 10x; c. siphon; d. tegmen; and e. receptaculum siminis.

Female Genitalia : Receptaculum siminis smooth with tiny grooves (Fig. 1e).

Distribution : Indonesia (Flores, Java, Sumatra); Myanmar; Philippines (Luzon)

Materials Examined : 3 adult males + 1 adult female, LUZON: Laguna: Los Baños, Bureau of Plant Industry, on mango leaves, 12.iii.2004 (JDRAdorada). Adult female, same locality, 15.ii.2004 (JDRAdorada). Adult male, same locality, 01.iv.2004 (JDRAdorada). Two adult females, Calauan, on mango, 08.iii.2004 (PJavier). Four adult males and 18 adult females, Calamba: Banlic, on mango, 15.iv.2004 (MVNavasero).

Remarks : In the paper provided by Fursch (1990), he designated *Heteroneda billardieri* Crotch (1871) as the valid species for *Coccinella reticulata* Fabricius (1801). At a glance, the markings on the elytron are quite similar to those in the netty ladybird beetle, *Harmonia testudinaria* (Muls.). After emergence, the adults are plain lemon-yellow in color without the network pattern. After a few minutes, the markings become visible.

#### LITERATURE CITED

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