

## ***Lema (Lema) lacertosa* LACORDAIRE (Coleoptera, Chrysomelidae) Newly Recorded from Japan**

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**Abstract** *Lema (Lema) lacertosa* LACORDAIRE, 1845 is firstly recorded from Ishigaki-jima and Iriomote-jima Isls., the Ryukyus, Japan. An identification key to four species of *Lema* from Japan: *L. (L.) coronata* BALY, *L. (L.) diversa* BALY, *L. (L.) lacertosa* and *L. (L.) rugifrons* JACOBY is provided.

The genus *Lema* FABRICIUS, 1798 (Chrysomelidae, Criocerinae) is one of the largest genera of the subfamily Criocerinae and distributed all over the world. Japanese species of the genus have been comprehensively studied by some authors (BALY, 1873; WINKLER, 1924–1932; KUWAYAMA, 1932; CHÛJÔ, 1940, 1959; CHÛJÔ & KIMOTO, 1961; KIMOTO, 1964; KIMOTO & GRESSITT, 1966; KIMOTO & TAKIZAWA, 1994). Recently, *Lema cyanella* (LINNAEUS, 1758) was recorded from Honshu, Shikoku, Kyushu and the Senkaku Islands (MATSUMURA *et al.*, 2011), and *L. trivittata trivittata* SAY, 1824 was recorded from the Sakishima Islands (Miyako-jima, Ishigaki-jima, Hateruma-jima, Iriomote-jima and Yonaguni-jima Isls.) as an alien species (AOYAGI, 2012; KAWAJI, 2012; MINAMI & MIYAMOTO, 2015). A total of 13 species of *Lema* have been recorded from Japan so far.

In this note, *Lema (Lema) lacertosa* LACORDAIRE, 1845 is firstly recorded from Ishigaki-jima and Iriomote-jima Isls., the Ryukyus, Japan. In addition, an identification key to four species of *Lema* from Japan: *L. (L.) coronata* BALY, *L. (L.) diversa* BALY, *L. (L.) lacertosa* and *L. (L.) rugifrons* JACOBY is provided.

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***Lema (Lema) lacertosa* LACORDAIRE, 1845**

[Japanese name: Netai-aka-kubiboso-hamushi]

(Figs. 1–6)

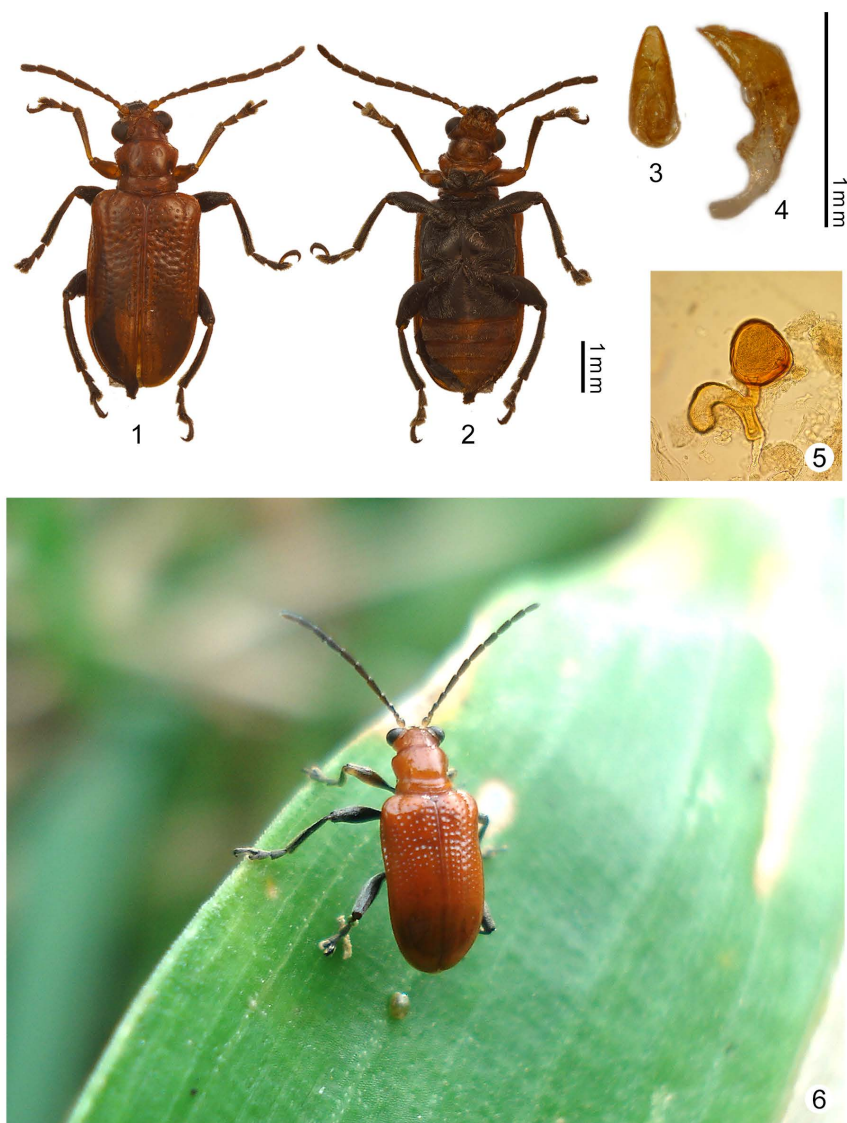
*Lema lacertosa* LACORDAIRE, 1845: 339 [Bengal] [type depository unknown]; LEE & MATSUMURA, 2013: 25.

*Lema phungi* PIC, 1924: 13 [Tonkin, Vietnam]; LEE & MATSUMURA, 2013: 25.

*Lema jeanvoinei* PIC, 1932: 11 [Hanoi, Vietnam]; LEE & MATSUMURA, 2013: 25.

**Distribution.** India, Nepal, Laos, Vietnam, Malaysia, Singapore, S. China, Taiwan and Japan (Ishigaki-jima and Iriomote-jima Isls.) (KIMOTO & GRESSITT, 1979; LEE & MATSUMURA, 2013; SCHMITT, 2010).

**Specimens examined.** Japan: Okinawa: Ishigaki-jima Is.: 1 male, Yonehara, 19.X.2014, H. SUENAGA leg. Iriomote-jima Is.: 1 ex., Haimi, 19.IV.2015, H. MIYAUCHI leg.; 2 males, 1 female and 1 ex., Shirahama-rindô, 21.X.2014, H. SUENAGA leg.; 9 exs., Takana, 18.IV.2015, H. MIYAUCHI leg. (3



Figs. 1–6. *Lema (Lema) lacertosa* LACORDAIRE. — 1, Dorsal view; 2, ventral view; 3, aedeagus, apical part of dorsal side; 4, ditto, lateral side; 5, spermatheca; 6, adult on *Commelina* sp. (Urauchi, Iriomote-jima; photo by H. MIYAUCHI).

exs. were reared from larvae); 1 ex., Urauchi, 1.X.2011, H. MIYAUCHI leg.; 1 ex., same locality, 14. IV.2012, H. MIYAUCHI leg.; 17 exs., same locality, 13.IV.2013, H. MIYAUCHI leg. (8 exs. were reared from larvae and pupae); 28 exs., same locality, 18.IV.2015, H. MIYAUCHI leg. (9 exs. were reared from larvae) (Those specimens collected by H. SUENAGA: deposited in H. SUENAGA's private collection, Tsuyama-shi, Okayama; those specimens collected by H. MIYAUCHI: deposited in H. MIYAUCHI's private collection, Ichikawa-shi, Chiba). India: 1 male and 1 ex., W. B., Calcutta, 14–19.X.1978, JAP-IND CO TR (Deposited in Systematic Entomology, Hokkaido University, Sapporo-shi, Hokkaido).

*Remarks.* *Lema lacertosa* were collected on *Commelina* sp. (Commelinaceae) by looking and sweeping (Fig. 6) in rice fields and along forest roads on Ishigaki-jima and Iriomote-jima Is. We also observed the hidden larvae at the bases of leaves which are rolled. This species was firstly collected from Iriomote-jima Is. in 2011, and now this species can be commonly found in both Iriomote-jima and Ishigaki-jima Is. It is most probable that it was introduced from the other locality. This species only feeds *Commelina* sp., therefore it will not damage the agricultural crops, unlike *L. trivittata*. On the other hand, it is supposed that this species competes with other domestic *Lema* species which feeds *Commelina* spp. such as *L. rugifrons* JACOBY and *L. coronata* BALY. Therefore, we need to pay attention to their abundance and extending their distribution.

This species is especially similar to *L. rugifrons* and *L. diversa* BALY, but they are distinguished by the coloration of body and legs, the density of pubescence on head and the shape of aedeagus etc. A key to three species of *Lema*, *L. coronata*, *L. lacertosa* and *L. rugifrons* from the Ryukyu Islands and *L. diversa* from the main islands of Japan is given below (modified from KIMOTO & TAKIZAWA, 1994).

#### Key to Four Species Related to *Lema lacertosa*

- 1 Middle tibiae without any distinct projection in middle ..... 2
- Middle tibiae with a distinct projection (but sometimes indistinct) in middle; coloration variable:
  - 1) body blue or blackish blue, with a transverse reddish band on vertex; 2) head blackish blue, pronotum and abdomen reddish; elytra blue with apical margins reddish; legs blackish blue with middle portion of femora reddish; antennae black; length 5.0–6.0 mm ..... *L. (L.) coronata* BALY
- 2 Occiput sparsely pubescent or without pubescence ..... 3
- Occiput densely pubescent, flat; dorsal surface reddish brown; antennae, tibiae, tarsi and thoracic sterna largely black; length 5.0–5.5 mm ..... *L. (L.) rugifrons* JACOBY
- 3 All legs blackish; second to fifth abdominal sternites black except for reddish brown margins; sixth abdominal sternite reddish brown; elytra having extensive color variation: 1) entirely reddish; 2) ground color blue; lateral, apical and sutural margins reddish, except for basal 1/4 of lateral margin; reddish sutural margin widened behind scutellum and again narrowed behind subbasal transverse depression; 3) ground color blue with subapical area of lateral and apical margins reddish; pronotum reddish; 4) body reddish; elytra with four blackish blue spots; length 5.5–6.2 mm ..... *L. (L.) diversa* BALY
- Fore legs at least partly reddish to yellowish brown; most parts of abdominal sternites reddish brown; elytra reddish entirely; fore femora and tibiae yellowish brown from base to middle; middle and hind legs black; second abdominal sternite black, third to sixth abdominal sternites reddish brown; head and pronotum reddish brown; meso- and metasterna blackish; length 4.7–5.1 mm ..... *L. (L.) lacertosa* LACORDIRE

#### 要 約

末長晴輝・宮内博至：ネッタアカクビボソハムシ *Lema (Lema) lacertosa* LACORDAIRE (鞘翅目ハムシ科クビボソハムシ亜科) の日本からの記録。—— ネッタアカクビボソハムシ *Lema (Lema) lacertosa* LACORDAIRE は台湾や中国南部、ネパール、インド、ベトナム、ラオス、マレーシア、シンガポールから記録されており、東アジア南部から東南アジアを中心に広く分布している。台湾からはLEE and MATSUMURA (2013) により最近記録された。筆者らは、石垣島と西表島で本種を確認し、日本初記録として報告した。これらの標

本は、あぜ道や開けた林道のツユクサ類を網で拘って得られたものである。また、葉の基部に本種と思われる幼虫がもぐりこんでいるところも観察している。2011年に西表島で初めて得られて以来、両島で普通に見られることから、人為的な移入由来の可能性も考えられる。本種はツユクサ類を宿主としていることから、同じツユクサ類を食べる在来種のトゲアシクビボソハムシ *L. (L.) coronata* BALY やヒメアカクビボソハムシ *L. (L.) rugifrons* JACOBY との間の競合が懸念され、今後の分布の拡大や近縁種との競合の有無に注意する必要がある。また、木元・滝沢 (1994) を参考にして、琉球に分布するツユクサ食の近縁種であるトゲアシクビボソハムシとヒメアカクビボソハムシ、および本土部に分布する近似種であるアカクビボソハムシ *L. (L.) diversa* BALY との検索表を作成した。

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