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CHRYSOMELIDAE (COLEOPTERA) OF THAILAND, CAMBODIA, LAOS AND VIETNAM

I. Sagrinae, Donaciinae, Zeugophorinae, Megalopodinae and Criocerinae[1,2]

By **Shinsaku Kimoto[3] and J. L. Gressitt[4]**

Abstract: This paper treats all 103 species of 5 subfamilies of Chrysomelidae recorded from Thailand, Cambodia, Laos and Vietnam, with pertinent synonymies and keys to genera and species. Ten additional species from nearby areas are included in keys and other additional species are illustrated for comparison. Eleven species are described as new, and a number are newly recorded from the area or from particular countries. Twenty-six species are relegated to synonymy.

This paper is the first in a series which attempts to bring together all the available information on the chrysomelid beetles of Thailand and the Indo-China area. The series forms a sequel to "The Chrysomelidae (Coleopt.) of China and Korea," by Gressitt & Kimoto (1961, 1963). This paper treats the first 5 subfamilies: Sagrinae, 7 species (p. 193); Donaciinae, 2 species, including 1 n. sp. (p. 201); Zeugophorinae, 5 species, including 1 n. sp. (p. 204); Megalopodinae, 12 species, including 1 n. sp. (p. 206); Criocerinae, 77 species, including 8 n. spp. (p. 213).

Keys are presented to both genera and species, and the attempt is made to present all pertinent synonymies and all principal geographical records for the species. Ten additional species from nearby countries are included in the keys. A number of the species are recorded from the area or from particular countries for the first time. Other species from neighboring areas are illustrated or keyed for comparative purposes (asterisked in keys).

The new data in this series result largely from the following major sources.

The J. A. Rondon Laos collection, largely housed in Bishop Museum. This collection was built up in Laos from 1961 to 1966, and the methods and localities are described in the monograph, *The Cerambycid-beetles of Laos* (Gressitt et al. 1970: see Gressitt 1970a, 1970b: Fig. 1–9; Rondon 1970; Gressitt & Rondon 1970: Fig. 1). Of the 1156 species of Disteniidae and Cerambycidae treated in the above study, 520, or about 45%, were new to science. In the Rondon survey, primary emphasis was on

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2. Partly supported by a grant from the Japan Society for the Promotion of Science, as part of the Japan-U.S. Cooperative Science Program: Zoogeography and Ecology of Pacific Area Insects.
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the collection of cerambycids and the chrysomelid collection is not so outstanding. Nevertheless, it is very important. The material here attributed to "native collectors" is all part of the Rondon collection.

Southern Vietnam material taken mostly in 1960 and 1961 by Bishop Museum staff members supported by grants from the U.S. National Institutes of Health and Department of Defense. Some collecting was also done in Laos and Cambodia by that team, which included J. L. Gressitt, R. E. Leech, M. Nadchatram, S. and L. W. Quate, N. Spencer, and C. M. Yoshimoto. Also utilized were collections from Thailand in Bishop Museum, mostly taken in 1957–1958, by J. L. Gressitt and T. C. Maa, and collections from Thailand, plus some from Laos, funded separately by the U.S. National Science Foundation, the Japan Society for the Promotion of Culture, and the Ministry of Education of the Japanese Government. The participants included P. D. Ashlock, J. L. Gressitt, G. A. Samuelson, J. Sedlacek and Nixon Wilson from Bishop Museum; and Y. Hirashima, K. Morimoto, and others from Kyushu University and other institutions, including those listed as follows: Kyushu University, 1) "Studies on the biological control of rice stem borers" (project leader, Prof. K. Yasumatsu, 1963–1969, SE Asia, with fieldwork by K. Yasumatsu, Y. Hirashima and K. Yano, grant from the Japan Society for the Promotion of Science), and 2) "Field survey on the biological control of rice stem borers, aphids, diaspine scale and phytophagous mites in SE Asia" (project leaders, Prof. K. Yasumatsu and Y. Hirashima, 1970, 1973, Thailand, Philippines, Hong Kong, fieldwork by K. Yasumatsu, Y. Hirashima, K. Yano, S. Nakao, A. Nagatomi and K. Nohara, grant from the Ministry of Education, Japanese Government); Ehime University, material collected by M. Sato and K. Hatta in Thailand, through the kindness of Prof. T. Ishihara.

Dr Kintaro Baba, Mr S. Sato and Mr Y. Yoshiyasu kindly provided numbers of specimens from Thailand from their personal collections. Collections from Laos of fair extent were loaned by the Zoologische Staatsammlung, München; some Laos material borrowed from the Basel Museum and the Osaka Museum of Natural History mainly concerns subfamilies to follow in later installments; collections from Thailand were loaned by Kasetsart University and the Thai Department of Agriculture, both at Bangkhen near Bangkok.

The following abbreviations are used herein for depository museums:

BANGKHEN	Kasetsart University, Bangkhen, Thailand
BISHOP	Bishop Museum, Honolulu
BMNH	British Museum (Natural History), London
CAS	California Academy of Sciences, San Francisco
CHUJO	Private collection of Prof. Michio Chujo, in Nagoya
DRESDEN	Staatliche Museum für Tierkunde, Dresden
EHIME	Ehime University, Matsuyama, Shikoku, Japan
FREY	G. Frey Museum, Tutzing bei München
KIMOTO	S. Kimoto collection, Kurume, Japan

KOBENHAVN	University Zoological Museum, Kobenhaven (Copenhagen)
KU	Kyushu University, Fukuoka
LINGNAN	Lingnan University, Canton
MUNCHEN	Zoologische Staatsammlung, Munchen
OXFORD	Oxford University, Oxford, England
PARIS	Museum National d'Histoire Naturelle, Paris
TARI	Taiwan Agriculture Research Institute and Taiwan University, Taipei
USNM	United States National Museum of Natural History, Washington, D.C.
ZMB	Zoological Museum der Humboldt Universität, Berlin

The abbreviation "Umgeb." in geographical records refers to the German Umgebung, meaning "environs of."

Subfamily SAGRINAE

Genus **Sagra** Fabricius

Sagra Fabricius, 1792, Entomol. Syst., 1, **2:** 51.—Lacordaire, 1845, Monogr. Phytoph. **1:** 21.—Baly, 1860, Trans. Entomol. Soc. London, ser 2, **5:** 236.—Chapuis, 1874, Genera Coleopt. **10:** 40.—Jacoby, 1903, Genera Insect. **14:** 6; 1908, Fauna India, Coleopt. **2:** 4 (type: *Tenebrio femoratus* Drury).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 117; 1915, Arch. Naturgesch. **80A**(2): 45.—Chen, 1942, Sinensia **13:** 105.—Gressitt, 1942, Lingnan Sci. J. **20:** 276.—Crowson, 1946, Trans. R. Entomol. Soc. London **97**(4): 104.—Monrós, 1959, Opera Lilloana **3:** 67, 75.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 7.

KEY TO SPECIES OF *Sagra*

1. Pronotal puncturation not extremely fine, punctures about as large as facets of compound eye; without a deep recessed longitudinal groove just below anterior prothoracic tubercle (subgenus *Prosagra*) 2
   Pronotal puncturation extremely fine or obsolete; with a recessed longitudinal groove below anterior prothoracic tubercle (subgenus *Sagra*); color varies from red, purple, cupreous green, green to blue or black; length 11–26 mm (FIG. 1) ..... **femorata**
2 (1). Body rather short; prothorax without an impressed line below anterior tubercle; hind femur of ♂ without pubescent depression 3
   Body fairly slender; prothorax with an impressed line below anterior tubercle; hind femur of ♂ with an elongate-oval pubescent depression beneath in basal ½; length 12–15 mm ... **jansoni**
3 (2). Prothorax and elytron shiny, metallic 4
   Prothorax and elytron (except coppery humerus) dull black, shagreened; hind tibia with a strong spur near middle; length 9–11 mm ..... **humeralis**
4 (3). Elytron unicolored; inner groove of hind tibia not pubescent 5
   Elytron with sutural margin colored differently from disc; hind tibia with inner groove pubescent and lacking spur-like preapical process; length 9–14 mm ..... **mouhoti**
5 (4). Apex of mesosternum of ♂ not very prominent and not horseshoe-shaped; hind femur of ♂ not very much broadened apically, with tooth 2 of lower edge much stronger than 1; pronotum moderately punctured; blue or golden green 6

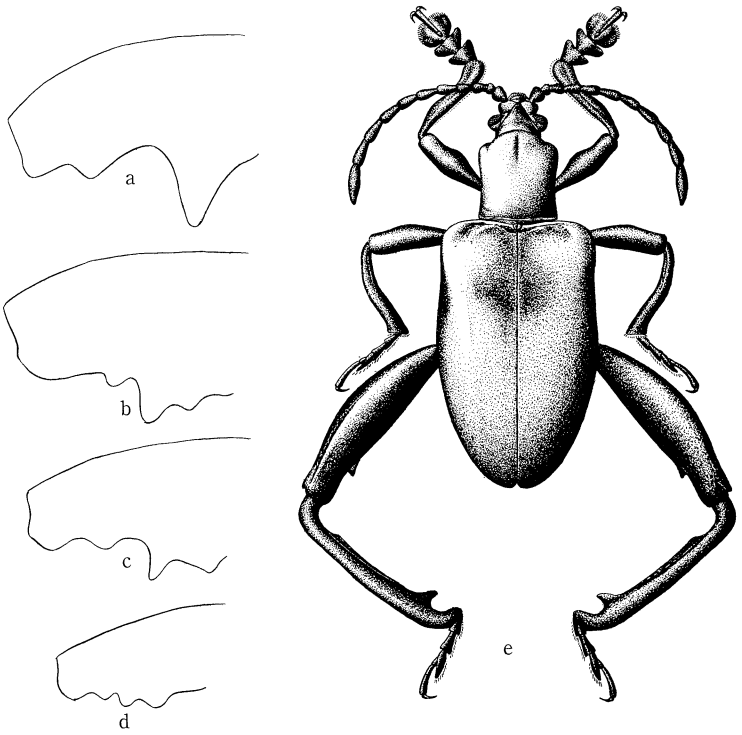

FIG. 1. *Sagra (Sagra) femorata*: a–d, variation of posterior femur (d, *tridentata* type); e, dorsal view.

Apex of mesosternum of ♂ raised and horseshoe-shaped; hind femur of ♂ broad apically, with tooth 2 of lower edge hardly larger than 1; pronotum densely punctured; largely reddish coppery; length 6–15 mm ..... **odontopus**

6 (5). Hind tibia of male armed with a spur-like process (FIG. 2c); elytral punctures sparse near base; violaceous blue or greenish blue, elytron always golden or reddish cupreous, with lateral margin and sometimes suture narrowly violaceous blue or green 7

Hind tibia of ♂ without a spur-like process (FIG. 2d); elytral punctures not very sparse near base; largely golden green, rarely blue; length 10–12 mm ..... **carbunculus**

7 (6). Prothorax distinctly less than 2× as wide as long; length 7–15 mm ..... **fulgida**

Prothorax almost 2× as wide as long; length 6 mm (Pic 1930; China: Yunnan) ..... **minuta**

Subgenus **Sagra** Fabricius

Sagra (Sagra) femorata (Drury) FIG. 1, 2a, b

Tenebrio femoratus Drury, 1773, Ill. Exot. Insects **2:** 64, pl. 34, fig. 5 (no locality cited).

Tenebrio viridis Sultzer, 1776, Abgekurz. Gesch. Insekt. **1:** 64 ("America").—Maulik, 1941, Ann. Mag. Nat. Hist. ser 11, **7:** 251 (=*femorata*).

Alurnus femorata: Fabricius, 1781, Species Insect. **1:** 115 (India orientali).

Sagra femorata: Fabr., 1792, Entomol. Syst. 1, **2:** 51 (India orientalis).—Herbst, 1797, Käfer **7:** 266, pl. 113, fig. 6.—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 111, 119 (Burma, Thailand, E Indies).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 243

(morphology, biology, synonyms).—Chen, 1942, Sinensia **13:** 105 (S China, Indo-China, India, Borneo, Java).—Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 108 (key).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 11 (key).—Kimoto, 1972, Entomol. Tidskr. **93:** 145 (Annam).

Sagra purpurea Lichtenstein, 1795, Cat. Mus. Hamburg, **60** (China).—Herbst, 1797, Käfer **7:** 265, pl. 112, fig. 5.—Weber, 1801, Obs. Entomol. **1:** 61.—Olivier, 1807, Entomologie **5:** 498, pl. 1, fig. 3.—Castelnau, 1840, Hist. Nat. Insect. Coleopt. **2:** 506 (China).—Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 485 (Saigon).—Duvivier, 1892, Ann. Soc. Entomol. Belg. **36:** 397 (N India).—Zia, 1936, Sinensia **7:** 327, pl. 4, fig. 11 (genital morphology).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 235 (=*femorata*).

Sagra splendida Weber, 1801, Obs. Entomol. **1:** 61 (China).—Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 485 (=*purpurea*).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 123 (=*femorata*).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra tridentata Weber, 1801, Obs. Entomol. **1:** 62 (E China).—Lacordaire, 1845, Monogr. Phytoph. **1:** 66 (E China).—Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 485 (Indo-China: Mytho; as var of *purpurea*).—Chen, 1942, Sinensia, **13:** 105 (China, Tonkin, Cochinchina).—Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 108 (key).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 12 (S China).

Sagra splendida Olivier, 1807 (nec Weber, 1801), Entomologie **5:** 497, pl. 1, fig. 2a, b (China).

Sagra nigrita Olivier, 1807, Entomologie **5:** 500 (Ceylon, S India).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra druryi Lacordaire, 1845, Monogr. Phytoph. **1:** 32 (Archipel Indies, Java, Assam).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 123 (=*femorata*).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra chrysochlora Lacordaire, 1845, Monogr. Phytoph. **1:** 35 (Java).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 123 (=*femorata*).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra festiva Lacordaire, 1845, Monogr. Phytoph. **1:** 35 (Borneo).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra speciosa Lacordaire, 1845, Monogr. Phytoph. **1:** 38 (Java).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 123 (=*femorata*).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra superba Lacordaire, 1845, Monogr. Phytoph. **1:** 39 (Java).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra quadricollis Lacordaire, 1845, Monogr. Phytoph. **1:** 40 (Java).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra ignita Lacordaire, 1845, Monogr. Phytoph. **1:** 47 (China).—Baly, 1860, Trans. Entomol. Soc. London, ser 2, **5:** 238 (=*splendida* Weber); 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 485 (=*tridentata*).—Chen, 1942, Sinensia **13:** 106 (=*tridentata*).

Sagra formosa Lacordaire, 1845, Monogr. Phytoph. **1:** 49 (China).—Baly, 1860, Trans. Entomol. Soc. London, ser 2, **5:** 238 (=*splendida* Weber); 1889, Ann. Soc. Ent. Fr., ser 6, **9:** 485 (=*tridentata*).—Chen, 1942, Sinensia **13:** 105 (=*tridentata*).

Sagra heterodera Lacordaire, 1845, Monogr. Phytoph. **1:** 50 (China).—Gressitt, 1942, Lingnan Sci. J. **20:** 277 (S China).—Chen, 1942, Sinensia **13:** 106 (=*tridentata*).

Sagra weberi Lacordaire, 1845, Monogr. Phytoph. **1:** 50 (Assam).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra mutabilis Baly, 1864, Ann. Mag. Nat. Hist., ser 3, **14:** 433 (Cambodia, Siam); 1889, Ann. Soc. Ent. Fr., ser 6, **9:** 485 (=*purpurea*).—Kuntzen, 1914, Arch. Naturgesch. **40A**(1): 123 (=*femorata*).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra longipes Baly, 1877, J. Linn. Soc. London **14:** 337 (Burma).—Kuntzen, 1914, Arch. Naturgesch. **80A** (1): 123 (=*femorata*).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra olivieri Weise, 1913, Wien. Entomol. Ztg. **32:** 18 (n. n. for *S. splendida* Olivier, 1807).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 123 (=*femorata*).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 252 (=*femorata*).

Sagra femorata tonkinensis Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 125 (Tonkin).—Chen, 1942, Sinensia **13:** 106 (S China, Laos).—Jolivet, 1952, Bull. Inst. R. Sci. Nat. Belg. **28**(5): 5 (variation).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 12 (S China).

Sagra femorata purpurea: Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 125 (China).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 12 (S China).

Sagra jeanvoinei Pic, 1953, Échange **69:** 7 (Tonkin; PARIS).—Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 11 (=*femorata purpurea*).

Distribution. India, Sri Lanka (Ceylon), Burma, Thailand, Laos, Cambodia, Vietnam, S China, Borneo, Java.

Hosts. Dolichos lablab Linn. (Leguminosae; in India and Sri Lanka (Ceylon), *Mucuna atropurpurea* (Leguminosae; in India), *Phaseolus* (Leguminosae; in Indo-China), *Faba vulgaris* (Leguminosae; in E Himalayas), *Ipomoea* (Convolvulaceae; in China), *Dioscorea batatas* (Dioscoreaceae; in China), *Aleurites* (Euphorbiaceae; in Indo-China), *Melia* (Meliaceae; in Indo-China), *Tectona* (Verbenaceae; in Indo-China), *Citrus* (Rutaceae; in Indo-China), *Coffea arabica* (Rubiaceae; in Indo-China) (after Maulik, 1941).

Material examined. THAILAND: Chiang Mai Prov.: Maeklang Waterfall, nr Chom Thong, 1 ex, 11.VI.1965, Y. Miyatake; Chiang Dao, 1 ex, 15.VI.1965, Miyatake; Doi Puli, 1300 m, 1 ex, 17.VI.1965, K. Morimoto; Songkhla Prov., 1 ex, 28.VI.1965, Miyatake (KU); Chiang Rai Prov., Chiang Rai, 2 ex, 22.XI.1960; Phrae Prov., Phrae, 1 ex, 18.VII.1938, 1 ex, 19.IV.1953; Nakhon Ratchasima Prov., Nakhon Ratchasima, 2 ex, 13.IX.1954 (BANGKHEN); Chanthaburi Prov., Prew, 1 ex, 29.VIII.1973, K. Yano (KU); Saraburi Prov., Phu Kae, 1 ex, 10.VIII.1964, 1 ex, 3.VII.1967 (BISHOP). LAOS:

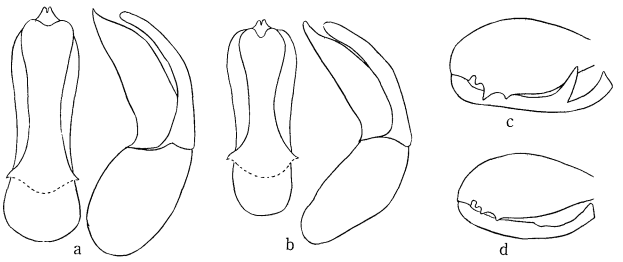

FIG. 2. a–b, *Sagra (Sagra) femorata*, ♂ genitalia (b, *tridentata* type). c, *S. (Prosagra) fulgida*, hind femur and tibia. d, *S. (P.) carbunculus*, hind femur and tibia.

Vientiane Prov.: Umgeb. Vientiane, 23 ex, III–VI.1963 (MUNCHEN); Ban Van Heua, 3 ex, 31.VII.1965, native collr; Ban Thonpheng, 1 ex, 30.VI.1966, native collr (BISHOP); Sedone Prov.: Umgeb. Pakse, 3 ex, 1963 (MUNCHEN); Pakse, 2 ex, 17.VII.1965, 1 ex, 30.VI.1967, native collr; Paksong, 1 ex, 1.VI.1965, 3 ex, 15.VII.1967, native collr (BISHOP); Sayaboury Prov.: Umgeb. Paklay, 3 ex, 1963–1964 (MUNCHEN); Sayaboury, 1 ex, 8.IX.1965, 1 ex, 21.IV.1966, 1 ex, 5.V.1966, native collr; Khammouane Prov., Phon Tiou, 1 ex, 4.VIII.1965, 1 ex, 6.VII.1965, native collr; 1 ex, 10.VI.1965, 1 ex, 11.VI.1965, 1 ex, 14.VI.1965, N. Wilson; 1 ex, 1965, J. A. Rondon; Attopeu Prov., Houei Kong, 1 ex, 4.IX.1965, native collr; Borikhane Prov., Pakkading, 1 ex, 14.VII.1965, native collr (BISHOP). VIETNAM: Tonkin, 1 ex, [no date], F. C. Bowditch (USNM).

Subgenus **Prosagra** Crowson

Prosagra Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 106 (type: *S. jansoni* Baly).—Monrós, 1958, Coleopt. Cat. Suppl, pars **51**(1): 9; 1959, Opera Lilloana **3:** 71.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 9.

Sagrina Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 106 (type: *S. carbunculus* Hope).—Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 9; 1959, Opera Lilloana **3:** 71 (=*Prosagra*).

Sagrionola Monrós & Bechyné, 1956, Entomol. Arb. Mus. Frey **7**(2): 1120 (n. n. for *Sagrina* Crowson, nec d'Orbigny, 1839).—Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 9; 1959, Opera Lilloana **3:** 71 (=*Prosagra*).

Sagra (Prosagra) carbunculus Hope FIG. 2d, 3a

Sagra carbunculus Hope, 1842, Ann. Mag. Nat. Hist., ser 1, **9:** 248 (Silhet; OXFORD); 1843, Trans. Linn. Soc. London **19:** 112, pl. 10, fig. 9.—Lacordaire, 1845, Monogr. Phytoph. **1:** 68 (India orientali).—Baly, 1860, Trans. Entomol. Soc. London, ser 2, **5:** 244, pl. 14, fig. 6 (N India).—Jacoby, 1908, Fauna India, Coleopt. **2:** 7 (N India, Assam).—Chen, 1942, Sinensia **13:** 107 (Laos, Cambodia, Assam, N India).

Sagra fulgida carbunculus: Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 113 (N India, Assam, Yunnan).
Sagra (Sagrina) carbunculus: Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 106 (key).
Sagra (Prosagra) fulgida carbunculus: Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 9 (SE Asia); 1959, Opera Lilloana **3:** 76 (SE Asia).
Sagra (Prosagra) carbunculus: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 10 (S China).

Distribution: India, Laos, Cambodia, Vietnam, S China.
Material examined. VIETNAM: Dalat, 1500 m, 1 ex, 28.IV–4.V.1960, L. W. Quate (BISHOP).

Sagra (Prosagra) fulgida Weber FIG. 2c

Sagra fulgida Weber, 1801, Obs. Entomol. **1:** 62 (China).—Fabricius, 1801, Syst. Eleuth. **2:** 27 (China).—Lacordaire, 1845, Monogr. Phytoph. **1:** 66 (Java, China).—Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 486 (Saigon, Java).—Kuntzen, 1914, Arch. Naturgesch. **80:** 132 (China).—Gressitt, 1942, Lingnan Sci. J. **20:** 276 (S China).—Chen, 1942, Sinensia **13:** 107 (China).
Sagra leechi Jacoby, 1888, Proc. Zool. Soc. London **1888:** 339 (China; BMNH).—Chen, 1942, Sinensia **13:** 107 (=*fulgida*).
Sagra fulgida janthina Chen, 1942, Sinensia **13:** 105 (S China).
Sagra (Sagrina) fulgida: Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 106 (key).
Sagra (Prosagra) fulgida: Monrós, 1958, Coleop. Cat. Suppl., pars **51**(1): 9 (S China); 1959, Opera Lilloana **3:** 75 (S China).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 9 (China).

Distribution. S China, Vietnam, Java.
No additional specimens examined.

Sagra (Prosagra) humeralis Jacoby

Sagra humeralis Jacoby, 1904, Entomologist **37:** 294 (Yunnan; BMNH).—Achard, 1913, Bull. Soc. Entomol. Fr. 1913: 161 (Tonkin, Yunnan; redescription).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 133 (Yunnan; =*fulgida carbunculus*).—Chen, 1935, Sinensia **6:** 769 (China, Tonkin); 1942, Sinensia **13:** 106 (S China, Tonkin).
Sagra (Sagrina) humeralis: Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 106 (key).
Sagra (Prosagra) fulgida humeralis: Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 9 (Yunnan).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 10 (SE China, Tonkin).

Distribution. S China, Vietnam.
No additional specimens.

Sagra (Prosagra) jansoni Baly FIG. 3b

Sagra jansoni Baly, 1860, Trans. Entomol. Soc. London, ser 2, **5:** 243, pl. 14, fig. 8 (Madras).—Jacoby, 1908, Fauna India, Coleopt. **2:** 6 (Madras).—Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 131 (Burma, India, Tonkin).—Maulik, 1941, Ann. Mag. Nat. Hist., ser 11, **7:** 243 (Burma; host plant).—Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 106 (key).

Sagra multipunctata Jacoby, 1889, Ann. Mus. Civ. Genova **27:** 149 (Burma: Bhamo); 1908, Fauna India, Coleopt. **2:** 8, fig. 1 (Burma).—Clavareau, 1913, Coleopt. Cat. pars **51:** 8 (=*jansoni*).

Sagra (*Prosagra*) *jansoni*: Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 9; 1959, Opera Lilloana **3:** 76 (SE Asia).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8 (Assam, Tonkin).

Distribution. India, Burma, Thailand, Laos, Vietnam.

Host. Thunbergia grandifolia (after Maulik 1941).

Material examined. THAILAND: Phrae Prov., Phrae, 1 ex, 7.VII.1938, 1 ex, 7.VIII.1938 (BANGKHEN); Phra Nakhon Prov., Bangkhen, 1 ex, 8.VIII.1963; Saraburi Prov.: Kao Yai [Natl. Park],[5] 1 ex, 15.IX.1963; Phu Kae, 1 ex, 15.IX.1967 (BISHOP); Chon Buri Prov., Chon Buri, 1 ex, 19.IX.1959 (BANGKHEN). LAOS: Sedone Prov., Umgeb. Pakse, 1 ex, 1964 (MUNCHEN); Vientiane Prov.: Ban Van Heua, 2 ex, 15–30.VIII.1967, native collr; Phou Khau Khouei, 4 ex, 30.X.1966, 31.VII.1965, native collr; Sithandone Prov., Ile de Khong, 1 ex, 24.VIII.1965, 2 ex, 7.IX.1965, 1 ex, 20.VIII.1965, native collr; Borikhane Prov., Pakkading, 4 ex, 9.IX.1965, native collr; Sayaboury Prov., Sayaboury, 1 ex, 8.IX.1965, native collr; Khammouane Prov., Phon Tiou, 1 ex, 18.VIII.1965, J. A. Rondon (BISHOP).

Sagra (Prosagra) mouhoti Baly FIG. 3c

Sagra mouhoti Baly, 1862, J. Entomol. **1:** 193 (Cambodia; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 7 (Burma, Cambodia).—Gressitt, 1942, Lingnan Sci. J. **20:** 277, pl. 13, fig. 1 (Yunnan).

Sagra fulgida mouhoti: Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 135 (Tonkin, Cambodia, Burma).

Sagra (*Sagrina*) *mouhoti*: Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 106 (key).

Sagra (*Prosagra*) *fulgida mouhoti*: Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 9; 1959, Opera Lilloana **3:** 76 (Indo-China).

Sagra (*Prosagra*) *mouhoti*: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 10 (resurrected from synonymy).

Distribution: Burma, Cambodia, Laos, Vietnam, SW China.

Material examined. LAOS: Sedone Prov., Pakse, 2 ex, 15.VI.1967, 3 ex,

5. Khao Yai National Park lies between 14.05°–14.15°N and 101.05°–101.50°E and includes sections of the provinces of Nakhon Ratchasima, Saraburi and Pranchinburi (McClure 1974).

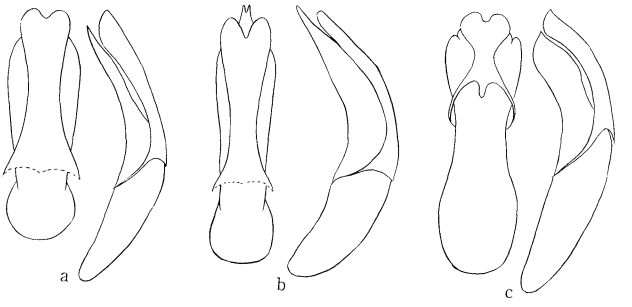

FIG. 3. Male genitalia: a, *Sagra* (*Prosagra*) *carbunculus*; b, *S.* (*P.*) *jansoni*; c, *S.* (*P.*) *mouhoti*.

17.VII.1965, 1 ex, 30.VI.1967, native collr; Luang Prabang Prov.: Muong Sing, NW of Luang Prabang, 650 m, 1 ex, 6–10.VI.1960, S. & L. Quate (BISHOP). VIETNAM: 9 km S of Dilinh (Djiring), 1 ex, 24.IV.1960, R. E. Leech (BISHOP).

Sagra (Prosagra) odontopus Gistl

Sagra odontopus Gistl, 1831, Isis: 309 (Java); 1857, Vacuna **2:** 459.—Strand, 1917, Arch. Naturgesch. **82A**(5): 92.—Monrós & Bechyné, 1956, Entomol. Arb. Mus. Frey **7**(3): 1120 (mentioned).

Sagra petelii Lacordaire, 1845, Monogr. Phytoph. **1:** 44 (Java).—Baly, 1860, Trans. Entomol. Soc. London, ser 2, **5:** 236 (Java, Nepal, Siam); 1865, Trans. Entomol. Soc. London, ser 3, **4:** 7 (Java, Penang, Siam, China).—Jacoby, 1908, Fauna India, Coleopt. **2:** 8, fig. 2 (Burma, Siam, China, "Japan").—Chûjô, 1934, Trans. Nat. Hist. Soc. Formosa **24:** 520.—Chen, 1942, Sinensia **13:** 107 (Tonkin, Cochinchina, Cambodia, Java).—Chûjô, 1955, Shin-Konchû, Tokyo **8**(4): 2 (notes on record from Japan).—Monrós & Bechyné, 1956, Entomol. Arb. Mus. Frey **7**(3): 1120 (=*odontopus*).

Sagra pygmaea Lacordaire, 1845, Monogr. Phytoph. **1:** 53 (Java).—Baly, 1860, Trans. Entomol. Soc. London, ser 2, **5:** 238 (=*petelii*); 1865, Trans. Entomol. Soc. London, ser 3, **4:** 7 (=var. of *petelii*).

Sagra fulgida petelii: Kuntzen, 1914, Arch. Naturgesch. **80A**(1): 134 (Java, Malaya, Tonkin, Sumatra).

Sagra cyanescens Pic, 1953, Échange **69:** 7 (Tonkin; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 11 (=*odontopus*).

Sagra suturalis Pic, 1953, Échange **69:** 7 (Tonkin; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 11 (=*odontopus*).

Sagra (*Prosagra*) *odontopus*: Monrós, 1958, Coleopt. Cat. Suppl., pars **51**(1): 90 (SE Asia); 1959, Opera Lilloana **3:** 76 (SE Asia).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 8, 10 (S China).

In 1958, Monrós erroneously synonymized *Sagra cyanescens* Pic, *impressipennis* Pic and *suturalis* Pic, with *S. fulgida* Weber.

Distribution. Nepal, Burma, Thailand, Laos, Cambodia, Vietnam, China, Malaysia, Sumatra, Java.

Material examined. THAILAND: Chiang Mai Prov.: Mae Klang Waterfall, nr Chom Thong, 3 ex, 11.VI.1965, Y. Miyatake, 1 ex, 11.VI.1965, K. Morimoto; Maesa Waterfall, 1 ex, 16.VI.1965, Morimoto (KU); Phra Nakhon Prov., Bang Khen, 1 ex, 15.VIII.1967, 1 ex, 1.IX.1964; Chanthaburi Prov.: Chanthaburi, 1 ex, 21.IV.1958; Prew, 1 ex, 20.IV.1963; Nakorn Nayok Prov., Nakorn Nayok, 1 ex, 10.VII.1963; Nakhorn Ratchasima Prov., Nakhorn Ratchasima, 1 ex, 20.VII.1958 (BANGKHEN); Khon Kaen Prov., Khon Kaen, 1 ex, 15.X.1972, M. Sato (EHIME). LAOS: Vientiane Prov.: Umgeb. Vientiane, 3 ex, III–VI.1963 (MUNCHEN); Phou Kou Khouei, 1 ex, 30.X.1966, native collr; Ban Tonpheng, 1 ex, 30.XI.1969, native collr; Ban Van Heua, 1 ex, 15.V.1966, native collr; Wapikhamthong Prov., Wapi, Khong Sedone, 1 ex, 15–31.VII.1967, native collr; Borikhane Prov., Pakkading, 2 ex, 31.VII.1965, 1 ex, 1.IX.1965, native collr; Attopeu Prov., Houei Kong, 1 ex, 17.VII.1965, native collr; Khammouane Prov., Phon Tiou, 1 ex, 6.VII.1965, native collr; Sedone Prov., Pakse, 1 ex, 31.V.1967, native collr (BISHOP); Umgeb. Pakse, 2 ex, 1964; Sayaboury Prov., Umgeb. Paklay, 1 ex, 1963 (MUNCHEN).

Subfamily DONACIINAE

Genus **Donacia** Fabricius

Donacia Fabricius, 1775, Syst. Entomol.: 195.—Curtis, 1834, Br. Entomol. **11:** 1823 (type: *Donacia crassipes* Fabricius).—Lacordaire, 1845, Monogr. Phytoph. **1:** 205.—Chapuis, 1874, Genera Coleopt. **10:** 57.—Weise, 1882, Insect. Dtschl. **6:** 10.—Jacobson, 1892, Horae Soc. Entomol. Ross. **26:** 417.—Jacoby & Clavareau, 1904, *in* Wystsman, Genera Insect. **21:** 3.—Reitter, 1920, Bestimmungstab. Eur. Coleopt. **88:** 26.—Chûjô, 1935, Trans. Nat. Hist. Soc. Formosa **24:** 523; 1951, Tech. Bull. Kagawa Agric. Coll. **3**(1): 47.—Monrós, 1959, Opera Lilloana **3:** 94.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 14.—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13**(1): 110, 112.

Arundinarius Voet, 1776, Cat. Syst. Coleopt. **2:** 31 (nomen nudum).

Donacocia Gistl, 1857, Achthundert und zwanzig neue oder unbeschriebene wirbellose Thiere **2:** 524.—Strand, 1916, Arch. Naturgesch. **82:** 92.—Monrós, 1959, Opera Lilloana **3:** 94 (type of *Donacocia* Gistl is *Donacia semicuprea* Panzer).

Donaciella Reitter, 1920, Wien. Entomol. Ztg. **38:** 38.—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **3**(1): 48 (=*Donacia*).—Monrós, 1959, Opera Lilloana **3:** 94 (type: *Donacia tomentosa* Ahrens).

Pseudodonacia Reitter, 1920, Wien. Entomol. Ztg. **27** (type: *kraaatzi* Weise); 1939, Misc. Entomol. 40, Suppl. **1:** 6.—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **3**(1): 48 (=*Donacia*).

Plateumaroides Khnzorian, 1962, Zool. Sb. Akad. Nauk Arm. SSR **12:** 116 (type: *Plateumaroides fastuosa* Khnzorian); 1968, Ann. Soc. Entomol. Fr. (n. s.) **4:** 262.—Jolivet, 1970, Coleopt. Cat. Suppl., pars **51**(2): 41 (=*Donacia*).

KEY TO SPECIES OF *Donacia*

1. Abdominal segment 1 of ♂ with a pair of slender spine-like tubercles near center (subgenus *Cyphogaster*) 2
   Abdominal segment 1 lacking a pair of slender tubercles (subgenus *Donacia*); bronzy black with elytron pitchy brown, antenna and legs reddish brown; pronotum closely impressed with large punctures and their interstices smooth and shining; length 4.5–5.0 mm (FIG. 4b–d) ..... **vietnamensis, n. sp.**

2 (1). Antennal segment 3 much longer than 2; tubercle near antennal insertion generally well developed 3
   Antennal segment 3 subequal to 2; tubercle near antennal insertion not well developed 4

3 (2). Tubercles between upper eye-lobes weakly developed; abdominal segment 5 of ♂ acute (Fairmaire 1885; China, Taiwan, Korea, Japan, E Siberia); length 5.0–9.0 mm (FIG. 4a) ... **provosti**
   Tubercles between upper eye-lobes strongly developed, keeled; abdominal segment 5 of ♀ produced into a narrow truncate apex; length 6.0–7.5 mm (Goecke 1934; Yunnan) ..... **tuberfrons**

4 (2). Hind femur of ♂ with an extra tooth on inner side well before main tooth; abdominal segment 5 of ♀ rounded, not acute 5
   Hind femur of ♂ without an extra tooth on inner side, sometimes with very small teeth following main tooth; abdominal segment 5 of ♂ acute; length 6.5–8.0 mm (Guérin-Méneville 1844; India, Ceylon) ..... **delesserti***

5 (4). Hind tarsal segment 2 longer than broad, or at least as long as broad; prothorax narrower at apex than just behind apex; length 6.0–9.0 mm ..... **javana**
   Hind tarsal segment 2 broader than long; prothorax as broad or broader at apex than at tubercles just behind apex; length 6.0–8.0 mm (Schönfeldt 1873; China, Taiwan, Korea, Japan) ..... **lenzi**

Subgenus **Donacia** Fabricius

Donacia (Donacia) vietnamensis Kimoto & Gressitt, **new species** FIG. 4b–d

Body narrowly elongate. Head bronzy black with clypeus and labrum more brownish, thorax bronzy black; elytron pitchy brown; abdomen bronzy black, antenna and legs reddish brown.

Head narrower than prothorax, produced anteriorly, closely and distinctly punctate; occiput grooved medially, frontoclypeus covered with fine silvery pubescence. *Antenna* filiform, longer than ½ length of body; segment 1 robust; 2 shortest, about ½ as long as 1, and nearly 1.3× as long as broad; 3 slightly slenderer than 2, but almost 1.5× as long as 2; 4 is 1.3× as long as 3; 5 longest; 6 shorter than 5 and subequal to 4; 7–10 subequal to each other in length and shape and subequal to 6 in length but thickly covered with fine hairs; 11 subequal to 10 in length but its apex pointed. *Pronotum* slightly broader than long, slightly narrowed anteriorly and more strongly so posteriorly, anterior margin distinctly rounded posteriorly and projecting at lateral angle, posterior margin distinctly rounded posteriorly; dorsal surface closely impressed with large punctures and their interstices smooth and shining. *Scutellum* subtriangular, covered with fine hairs. *Elytron* subparallel-sided, gradually narrowed apically, and their interstices with smooth and shiny surface, apex incised. *Legs* slender, posterior femur not quite reaching to elytral apex, spined preapically, hind tarsal segment 2 as long as broad.

Length 4.5–5.0 mm.

Holotype (BISHOP 11,315), VIETNAM: 6 km S of Dalat, 1400–1500 m, 9.VI.–7.VII.1961, N. R. Spencer. Paratopotypes, 2 ex, same data as holotype (BISHOP, KIMOTO).

This new species closely resembles *D. assama* Goecke from India, but differs from it in being smaller and having pronotum more sparsely punctate and apex of elytron more sharply incised.

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* From outside geographical scope of this paper; included for comparative purposes.

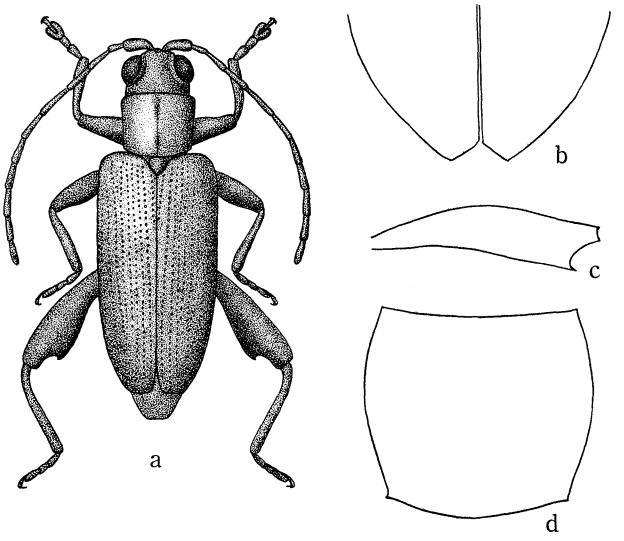

FIG. 4. a, *Donacia* (*Cyphogaster*) *provosti* (E Siberia, Japan, Korea, China, Taiwan). b–d, *Donacia* (*Donacia*) *vietnamensis*: b, apical portion of elytron; c, posterior femur; d, pronotum.

Subgenus **Cyphogaster** Goecke

Cyphogaster Goecke, 1934, Koleopt. Rundsch. **20**(6): 215; 1935, Arch. Hydrobiol. Suppl. **14** (Tropische Binnengewässer 6): 286; 1935, Entomol. Bl. **32**(5): 220.—Chen, 1941, Sinensia **12**(1–6): 8 (type: *Donacia provostii* Fairm., designated as type).—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **3**(1): 49.—Monrós, 1959, Opera Lilloana **3:** 96.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 14.—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13**(1): 112, 113.

Donacia (Cyphogaster) javana Wiedemann

Donacia javana Wiedemann, 1821, Germar's Mag. Entomol. **4:** 173 (Java).—Lacordaire, 1845, Monogr. Phytoph. **1:** 196 (Java, Celebes).—Suffrian, 1864, Stettin. Entomol. Ztg. **25:** 86 (Java, Celebes).—Jacobson, 1892, Horae Soc. Entomol. Ross. **26:** 420 (Java, Celebes).

Donacia malayana Csiki, 1900, Termeszettud Füzetek **23:** 403 (Singapore).—Goecke, 1934, Koleopt. Rundsch. **20:** 225 (=*javana*).

Donacia (*Cyphogaster*) *javana*: Goecke, 1934, Koleopt. Rundsch. **20:** 215, 222, 230 (Bengal, Assam, Burma, Borneo, Celebes); 1935, Arch. Hydrobiol. Suppl. **14:** 286 (Bengal, Sumatra, Java, Borneo, Celebes); 1936, Entomol. Bl. **32:** 221; 1944, Entomol. Bl. **40:** 12.—Chûjô, 1964, Nature and Life in SE Asia **3:** 251 (Thailand).

Distribution. India, Burma, Thailand, Vietnam, Laos, Cambodia, Malaysia, Singapore, Borneo, Celebes, Sumatra, Java.

Material examined. THAILAND: Thon Buri Prov.: Bangkok, 1 ex, 1–24.III.1932, Hugh Smith; same locality, 8.XI.1931 (USNM); Bangkok, 10 ex, 13.VIII.1960 (BANGKHEN); Chiang Mai Prov., San Pa Tong R.E.S., 1 ex, 25.XI.1968, Jeraphantha (EHIME); Chon Buri Prov., Bangsaen, 1 ex, 16.XI.1968, M. Sato (KIMOTO); Koh Sichang, 2 ex, 6.II.1950, N. Hoashi (KU).

Subfamily ZEUGOPHORINAE
Genus **Zeugophora** Kunze

Zeugophora Kunze, 1818, Neue Schr. Naturforsch. Ges. Halle **2**(4): 71 (type: *Crioceris subspinosa* Fabr.).—Lacordaire, 1845, Monogr. Phytoph. **1:** 226, 233.—Gressitt, 1945, Lingnan Sci. J. **21:** 137.—Crowson, 1946, Trans. R. Entomol. Soc. London **97**(4): 94.—Chûjô, 1952, Tech. Bull. Kagawa Agric. Coll. **3**(3): 167, 169.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 23, 24.—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13:** 106, 107.

Auchenia Megerle, *in* Dejean, 1821, Cat. Coleopt., 114 (type: *Crioceris subspinosa* Fabr.).—Monrós, 1959, Acta Zool. Lilloana **17:** 21.

Taraxis LeConte, 1850, *in* Agassiz, Coleopt. Lake Superior: 237 (type: *Taraxis abnormis* LeConte; monotype).

KEY TO SPECIES OF *Zeugophora*

1. Interoposterior portion of eye feebly emarginate (subgenus *Pedrillia*) 2
   Interoposterior portion of eye very distinctly and deeply emarginate (subgenus *Zeugophora*) ..... [Holarctic species only]
2 (1). Dorsal surface partly blackish 3
   Dorsal surface entirely brownish 4
3 (2). Robust; prothorax black, elytron reddish brown; head reddish brown with occiput and vertex blackish; antenna black with 2 basal segments brownish; ventral surfaces and legs black; length 4.2–4.8 mm (FIG. 5b) ..... **maai, n. sp.**
   Elongate; prothorax reddish brown with a median longitudinal stripe black; elytron reddish brown with lateral and sutural margins narrowly blackish; black, apex of pygidium and a part of femora brownish; length 6.0 mm (FIG. 5a) ..... **nigrocincta**
4 (2). Ventral surfaces entirely brownish 5
   Dorsal surfaces entirely fulvous and ventral surfaces entirely blackish; antenna blackish with 1 or 2 basal segments brownish; length 3.5–4.0 mm ..... **longicornis**
5 (4). Entirely flavous; length 4.2–5.0 mm ..... **indica**
   Flavous, antenna black with 2 basal segments brownish, legs flavous with apex of femora and entire tibiae and tarsi infuscate; length 4.5 mm ..... **bicoloripes**

Subgenus **Pedrillia** Westwood

Pedrillia Westwood, 1864, Trans. Entomol. Soc. London ser 3, **2:** 280 (type: *P. longicornis* Westwood).—Chûjô, 1932, Trans. Nat. Hist. Soc. Formosa **22:** 337, 338; 1937, Trans. Nat. Hist. Soc. Formosa **27:** 150.—Crowson, 1946, Trans. R. Entomol. Soc. London **97** (4): 94.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 24.—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13:** 106, 108.—Monrós, 1959, Acta Zool. Lilloana **17:** 21.

Austrolema Oke, 1932, Proc. Linn. Soc. N. S. W. **57:** 164 (type: *Austrolema vitinea* Oke; monotype).—Monrós, 1959, Acta Zool. Lilloana **17:** 21 (=*Pedrillia*).

Bruchomima Achard, 1916, Bull. Soc. Entomol. Fr. **1916:** 47 (type: *Bruchomima chloropelta* Achard, monotype).—Monrós, 1959, Acta Zool. Lilloana **17:** 21 (=*Pedrillia*).

Macrozeugophora Achard, 1914, Bull. Soc. Entomol. Fr. **83:** 288 (type: *Macrozeugophora ornata* Achard; monotypic).—Gressitt, 1945, Lingnan Sci. J. **21**(1–4): 137 (=*Zeugophora*).

Pedrilliomorpha Pic, 1917, Mél. Exot. Entomol. **24:** 9 (type: *Pedrilliomorpha atrosuturalis* Pic; monotypic).—Monrós, 1959, Acta Zool. Lilloana **17:** 21 (=*Pedrillia*).

Pedrillimorpha, Pedrinella and *Pedrilonga* Papp, 1946, Addit. Faun. Coleopt. **4:** 24–27 [nom. nud.].

Zeugophora (Pedrillia) bicoloripes Pic

Zeugophora bicoloripes Pic, 1939, Mél. Exot. Entomol. **71:** 31 (Indo-China; PARIS).

Auchenia (Pedrillia) bicoloripes: Monrós, 1959, Acta Zool. Lilloana **17:** 23 (Indo-China).

Distribution. "Indo-China."

No additional specimens.

This species closely resembles *Zeugophora indica* Jacoby, but is separable from it in having antennae, entire tibiae and apices of femora infuscate.

Zeugophora (Pedrillia) indica Jacoby

Zeugophora indica Jacoby, 1903, Ann. Soc. Entomol. Belg. **48:** 81 (India: Nilgiri; BMNH); 1908, Fauna India, Coleopt. **2:** 14, fig. 5 (India).—Bryant, 1943, Ann. Mag. Nat. Hist., ser 11, **10:** 246 (India).—Crowson, 1946, Trans. R. Entomol. Soc. London **97:** 95 (India).

Pedrillia flavipes Jacoby, 1908, Fauna India, Coleopt. **2:** 14 (India: Nilgiri Hills; BMNH).—Bryant, 1943, Ann. Mag. Nat. Hist., ser 11, **10:** 246 (=*indica*).

Auchenia (Pedrillia) indica: Monrós, 1959, Acta Zool. Lilloana **17:** 23 (India).

Distribution. India, Thailand.

Material examined. THAILAND: Chiang Mai Prov., Fang, 1 ex, 14.VI.1965, K. Morimoto (KU).

Zeugophora (Pedrillia) longicornis (Westwood)

Pedrillia longicornis Westwood, 1864, Trans. Entomol. Soc. London, ser 3, **2:** 280 (India; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 13 (India).

Pedrillia andrewesi Jacoby, 1908, Fauna India, Coleopt. **2:** 14 (India: Nilgiri Hills; BMNH).—Bryant, 1943, Ann. Mag. Nat. Hist., ser 11, **10:** 246 (=*longicornis*).

Zeugophora longicornis: Bryant, 1943, Ann. Mag. Nat. Hist., ser 11, **10:** 246 (India).—Crowson, 1946, Trans. R. Entomol. Soc. London **97**(4): 95 (India).

Auchenia (Pedrillia) longicornis: Monrós, 1959, Acta Zool. Lilloana **17:** 23 (India).—Kimoto, 1970, Khumbu Himal **3**(3): 412 (Nepal).

Distribution. India, Nepal, Thailand.

Material examined. THAILAND: Chiang Mai Prov., Doi Suthep, 1278 m, 1 ex, 28–31.III.1958, 1 ex, 29.III–4.V.1958, T. C. Maa (BISHOP).

Zeugophora (Pedrillia) maai Kimoto & Gressitt, **new species** FIG. 5b

Body thinly clothed with oblique pale hairs. Head reddish brown with occiput and vertex blackish; prothorax and scutellum black; elytron reddish brown; antenna black with 2 basal segments brownish; ventral surface and legs black.

Head distinctly narrower than prothorax, but nearly as broad as long; frontoclypeus broad and short, surface convex and feebly punctured; occiput flat, separated from frontoclypeus by a groove, broader than width of an eye, surface sparsely impressed with distinct foveae bearing a long hair, vertex flat, shining, not distinctly separated from occiput. *Antenna* ½ as long as body, fairly slender; segment 1 long, 4× as long as broad, feebly swollen; 2 almost ⅓ as long as 1; 3 slender, nearly 2× as long as 2; 4 as long as 3; 5 nearly 5/6 as long as 4; 6 as long as 5; 7 slightly shorter than 6; 8 subequal to 7; 9 slightly shorter than 8 and nearly 4/5 as long as 6; 10 subequal to 9; 11 slightly longer than 10, acute apically. *Prothorax* about 1.5× as broad as long, about as wide at apex as at base, but broadly expanded in anterior ⅔, the expansion gradually widened to about middle of side, then suddenly narrowed, anterior and posterior margin arcuate anteriorly and posteriorly; disc evenly convex, regularly and subclosely punctured. *Scutellum* strongly narrowed, rounded posteriorly. *Elytron* almost 3× as long as broad, slightly widened to behind middle, broadly rounded apically; disc evenly convex, closely, deeply and irregularly punctured. *Legs* stout; femora swollen; tibiae slightly sinuate.

Length 4.0–5.0 mm; breadth 2.0–2.3 mm.

Holotype (BISHOP 11,316), THAILAND: NW Chiang Mai, Doi Suthep, 1278 m, 20.III–4.V.1958, T. C. Maa. Paratopotypes, 2 ex, same data as holotype. Paratypes, 3 ex, same locality as holotype, 28–31.III.1958, Maa; 2 ex, same locality as holotype, but water margin, 4.IV.1958, Maa (BISHOP, KIMOTO); LAOS: [prov. unknown:] Umgeb. Vanky, 1963 (MUNCHEN).

This new species somewhat resembles *Z. longicornis* (Westwood), but differs from it in having the ventral surfaces entirely black, body being more robust and slightly larger. It differs from *Z. nigricollis* (Jacoby) from Japan in having vertex without any distinct setigerous punctures.

Zeugophora (Pedrillia) nigrocincta (Pic) FIG. 5a

Pedrilliomorpha nigrocincta Pic, 1924, Mél. Exot. Entomol. **41:** 7 (Tonkin; PARIS).
Auchenia (Pedrillia) nigrocincta: Monrós, 1959, Acta Zool. Lilloana **17:** 23 (Tonkin).

Distribution. Vietnam.

No additional specimens.

Subfamily MEGALOPODINAE

KEY TO GENERA OF MEGALOPODINAE

1. Posterior femur armed with a tooth near middle or apex of underside in both sexes; prothorax with a small projection at side, just anterior to hind angle 2
   Posterior femur without ventral tooth, but in some species with a slender oblique postmedian tooth in ♂; prothorax without a small projection at side just anterior to hind angle ..... **Temnaspis**

2 (1). Posterior femur with 1 or 2 subapical teeth, sometimes 1 on middle of underside also; body sometimes fairly broad ..... **Colobaspis**

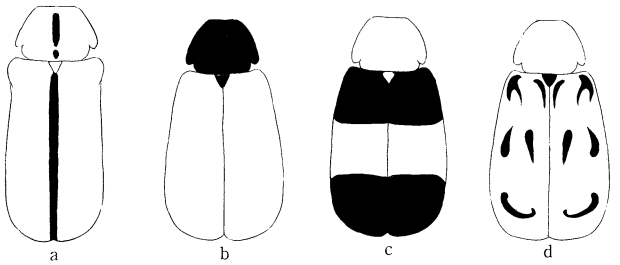

FIG. 5. a, *Zeugophora* (*Pedrillia*) *nigrocincta* (drawn after type; Vietnam: Tonkin). b, *Z.* (*P.*) *maai*. c, *Z.* (*P.*) *pallidicincta* (drawn after type of *Zeugophora unifasciata* Pic, 1917, from Sikkim; nec Baly, 1885). d, *Z.* (*P.*) *multisignata* (drawn after Pic's specimen; China: Kwanhsien, Szechuan).

Posterior femur with a single stout tooth at a right angle on middle of underside and without any subapical tooth; body oblong, not very broad; prothorax short, subcylindrical (Kraatz, 1879; type: *C. cyanipennis* Kraatz, Amur) ..... **Clythraxeloma**

Genus **Temnaspis** Lacordaire

Temnaspis Lac., 1845, Monogr. Phytoph. **1:** 716.—Chapuis, 1874, Genera Coleopt. **10:** 92.—Jacoby & Clavareau, 1905, Genera Insect. **33:** 12 (type: *Megalopus javana* Guer.).—Jacoby, 1908, Fauna India, Coleopt. **2:** 87.—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **3**(2): 60.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 29, 32 (in part).

KEY TO SPECIES OF *Temnaspis*

1. Elytron entirely bluish; reddish brown; head reddish brown with a blackish spot in middle of occiput; pronotum with a blackish median longitudinal marking; in many specimens parts of mesoepisternum and metepisternum black; posterior femora with a blackish spot on middle, tarsi black 2
   Elytron not entirely bluish 3
2 (1). Antenna yellowish brown; length 8.0 mm (FIG. 8a) ..... **laosensis**
   Antenna mostly blackish; length 7.5–9.0 mm (FIG. 6a, f, g). **New combination** ..... **pretiosa***
3 (1). Elytron entirely brownish 4
   Elytron brownish with blackish markings 5
4 (3). Elytron reddish brown with apical ⅓ yellowish brown; antenna blackish; tarsi brownish; length 10 mm ..... **bicoloripennis**
   Brown, antenna and tarsi blackish; length 9.0 mm (FIG. 6e, 7d) ..... **ashlocki, n. sp.**
5 (3). Elytron without long, median longitudinal stripe 6
   Elytron with a black, long, median longitudinal stripe starting from base of elytron and ending at subapical portion; yellowish brown, head with 2 blackish markings, of which 1 situated on middle of occiput and another on vertex; pronotum with 2 pairs of blackish markings, anterior 1 larger, and posterior 1 smaller; antenna and tarsi blackish; length 9.0 mm (FIG. 7a) ..... **discolineata**
6 (5). Elytron without subapical marking 7
   Elytron with a humeral, a median and a subapical marking, all black; yellowish brown, antenna and tarsi black, head with 2 blackish markings, 1 situated on middle of occiput, and another on vertex; pronotum with 2 pairs of blackish markings, anterior 1 larger, posterior 1 smaller; length 8.5–9.0 mm (FIG. 8c) ..... **mouhoti**

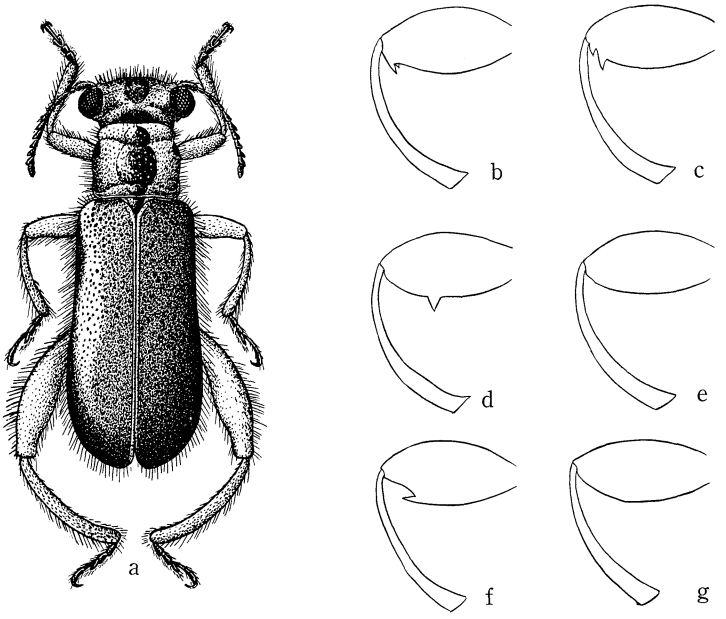

FIG. 6. a, *Temnaspis pretiosa* (from S China, Taiwan), dorsal view. b–g, posterior femora: b, *Colobaspis nigriceps*; c, *C. insignis*; d, *Clythraxeloma cyanipennis* Kraatz (from E Siberia, Korea, China); e, *Temnaspis ashlocki*; f–g, *T. pretiosa*: f, ♂; g, ♀.

7 (6). Pronotum distinctly punctate, and with anterior and posterior transverse furrows deep; reddish brown, with or without blackish marking in middle of pronotum, elytron reddish brown on basal portion and yellowish on apical portion and with an oblique blackish marking in middle; parts of meso- and metathorax and abdomen blackish; antenna blackish with basal segments paler; posterior femur with a blackish spot; length 7–10 mm (FIG. 7b) ..... **downesi**

Pronotum nearly impunctate, and with anterior and posterior transverse furrows shallow; reddish brown, elytron with a humeral, and an elongate median marking, blackish; antenna blackish with basal segments paler; parts of meso- and metathorax blackish; length 10 mm (FIG. 8b) ..... **maculata**

Temnaspis ashlocki Kimoto & Gressitt, **new species** FIG. 6e, 7d

Orange ochraceous in color, slightly darker on head, pronotum and hind femur; eye partly pitchy; antenna black except for parts of segments 1–2; tarsi reddish brown to pitchy. Body almost entirely clothed with moderately long suberect hairs, largely golden ochraceous, but partly brown to pitchy on head and pronotum.

Head distinctly broader than prothorax, slightly narrower than elytra, almost entirely covered with rather close and deep punctures; interocular area flattish anteriorly, depressed medially in posterior ½; interantennal area depressed anteriorly; frontoclypeus about 3× as broad as long, shallowly emarginate anteriorly; labrum convex, slightly emarginate in middle of anterior margin; gena extremely short; eye ¾ as wide as deep, deeply emarginate near antennal insertion. *Antenna* reaching to just behind humerus; segment 1 nearly 3× as long as broad, slightly arched; 2 more slender, slightly longer than broad; 3 nearly 2× as long as broad; 4 nearly as broad as long; 5–11 much larger, broadened and subangulate externally, mostly about ½ again as broad as long; 10 nearly 2× as broad as long; 11 slightly longer than broad and subrounded apically. *Prothorax* 4/5 as long as broad at apex as at base, sinuate at side, nearly as wide at middle as at base, slightly constricted near apex and base; disc somewhat strongly swollen in central

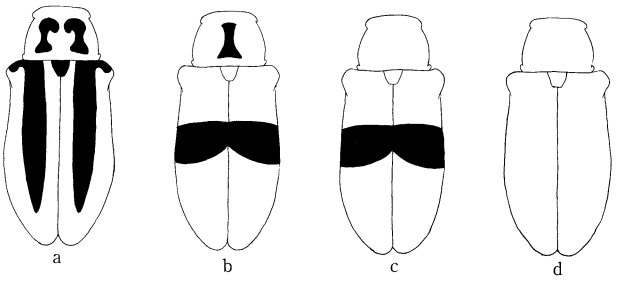

FIG. 7. a, *Temnaspis discolineata*. b–c, *T. downesi* (b, drawn after type, N India; c, *inhonesta* type); d, *T. ashlocki*.

portion, with a subtransverse constriction near apex and base, both reaching closer to middle in central portion; surface somewhat irregularly punctured, the punctures closest near middle of side and sparser near constrictions. *Scutellum* distinctly broader than long, obtuse behind, distinctly punctured. *Elytron* 4× as long as broad, subparallel-sided, broadly subrounded apically; disc entirely covered with moderate and subequal irregular punctures, very slightly smaller posteriorly. *Ventral surfaces* rather moderately, but irregularly punctured, mostly with fairly fine punctures, finer and sparser on central portions of metasternum and abdomen, but denser on last abdominal sternite; moderately sparse on side of abdomen. *Legs* stout; hind femur nearly ½ as broad as long, rather sparsely and finely punctured; hind tibia very strongly arcuate, heavily and closely punctured; hind tarsal segment 1 slightly longer than 2, shorter than 3, 1–3 combined shorter than last.

Length 9 mm (prothorax and elytra 7.6); breadth 3.0 mm.

Paratype slightly paler, but with suggestion of dull postmedian band on elytra.

Holotype (BISHOP 11,317) LAOS: Vientiane Prov., Ban Van Heua, 20 km E of Phou Kow Kuei [Phou Khao Khouei], N of Vientiane, 15–31.V.1965, J. Rondon. Paratypes: N THAILAND: Chiang Mai Prov., Fang (Agric. Exp. Sta.), 600 m, 1 ex, 14.VI.1965, P. D. Ashlock (KIMOTO); LAOS: Umgeb. Vientiane, 1 ex, III–VI.1963 (MUNCHEN).

This species differs from *T. bicoloripennis* Pic in having the elytron entirely pale and tarsi blackish.

Temnaspis bicoloripennis Pic

Temnaspis bicoloripennis Pic, 1942, Échange, num spec. Opusc. Mart. **7:** 14 (Siam; ?PARIS).

Distribution. Thailand.

No additional specimens. We could not find the type of this species in PARIS. According to Pic (1942), there is a possibility that this species is only a variation of *T. downesi* Baly.

Temnaspis discolineata Pic FIG. 7a

Temnaspis discolineata Pic, 1938, Bull. Soc. Zool. Fr. **63:** 356 (Siam; PARIS).

Distribution. Thailand, Laos.

Material examined. THAILAND: Chiang Mai Prov., Doi Puli, 1300 m, 1 ex,

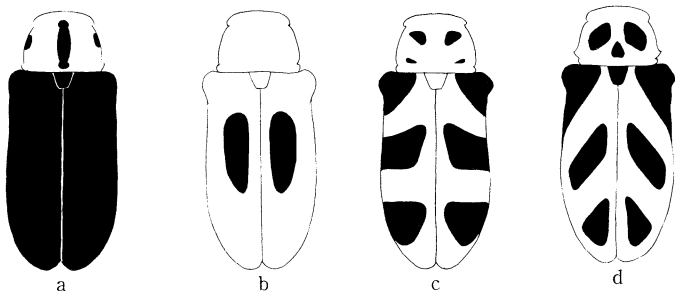

FIG. 8. a, *Temnaspis laosensis*; b, *T. maculata*; c, *T. mouhoti*; d, *Colobaspis vitalisi* (drawn after type).

8.V.1965, Y. Miyatake (KU). LAOS: [Luang Prabang Prov.?] Muong Sing, NW of Luang Prabang, 650 m, 1 ex, 6–10.VI.1960, S. & L. Quate (BISHOP).

Temnaspis downesi Baly FIG. 7b, c

Temnaspis downesi Baly, 1859, Ann. Mag. Nat. Hist., ser 3, **3:** 205, pl. 5, fig. 5 (N India; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 88, fig. 15 (N India).
Temnaspis downesi var. *inlineatus* Pic, 1922, Mél. Exot. Entomol. **37:** 7 (Laos; PARIS).

Distribution. N India, Laos.

Material examined. LAOS: Sedone Prov., 5 km E of Pakse, 1 ex, 13.V.1965, P. D. Ashlock (BISHOP).

In the nominate form, pronotum is fulvous with a blackish spot on middle. Pic (1922) reported an infraspecific variation of this species as var. *inlineatus* from Laos. This variation differs from the nominate form in having pronotum entirely rufous. The specimen from Laos seems to be of this type.

Temnaspis laosensis Pic FIG. 8a

Temnaspis laosensis Pic, 1922, Mél. Exot. Entomol. **37:** 7 (Laos; PARIS).

Distribution. Laos, Vietnam.

Material examined. VIETNAM: Fyan, 900–1000 m, 1 ex, 11.VII–9.VIII.1961, N. R. Spencer (BISHOP).

This species closely resembles *T. pretiosa* (Reineck, 1923), distributed in S China and Taiwan. The taxonomic status of *pretiosa* needs further verification.

Temnaspis pretiosa (Reineck), **new combination**

Poecilomorpha pretiosa Reineck, 1923, Deutsche Entomol. Ztschr. **6:** 609 (Formosa).—Chûjô, 1932, Trans. Nat. Hist. Soc. Formosa **22:** 311 (Formosa); 1951, Tech. Bull. Kagawa Agric. Coll. **3**(2): 62 (Formosa).
Poecilomorpha elegantula Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 284, fig. (N Kwangtung; LINGNAN).

Poecilomorpha pretiosa elegantula: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 29 (S China).

Distribution. S China, Taiwan.

In future this species might prove to be only a color variation of *T. laosensis* Pic.

Temnaspis maculata Pic FIG. 8b

Temnaspis maculata Pic, 1926, Mél. Exot. Entomol. **45:** 9 (Tonkin; PARIS).

Distribution. N Vietnam.

No additional specimens; only the type series. This species seems to be closely related to *Temnaspis assamensis* Jacoby.

Temnaspis mouhoti Baly FIG. 8c

Temnaspis mouhoti Baly, 1864, Ann. Mag. Nat. Hist., ser 3, **14:** 435 (Cambodia; BMNH).—Bryant, 1923, Ann. Mag. Nat. Hist., ser 9, **12:** 134 (Siam).

Temnaspis oberthuri Jacoby, 1895, Ann. Soc. Entomol. Belg. **39:** 253 (Burma; BMNH).—Bryant, 1923, Ann. Mag. Nat. Hist., ser 9, **12:** 134 (=*mouhoti*).

Distribution. Burma, Thailand, Laos, Cambodia.

Material examined. THAILAND: Chiang Mai Prov., Chiang Dao, 1 ex, 15.VI.1965, K. Morimoto (KU). LAOS: Vientiane Prov., Dong Dok, 1 ex, 23.VII.1965, native collr; [Luang Prabang Prov.?] Muong Sing, NW of Luang Prabang, 650 m, 1 ex, 6–10.VI.1960, S. & L. Quate (BISHOP).

Temnaspis squalida Allard

Temnaspis squalida All., 1891, Nouv. Arch. Mus. Paris, ser 3, **3:** 232 (Indo-China); 1904, Mission Pavie **3:** 162, pl. 9, fig. 7 (Indo-China).

Distribution. "Indo-China."

No additional specimens.

This species seems to be closely related to *T. maculata* Pic, but we need further verification on the relationship between these 2 species. This species is not included in the key.

Genus **Colobaspis** Fairmaire

Colobaspis Fairm., 1894, Ann. Soc. Entomol. Belg. **38:** 225 (type: *C. flavonigra* Fairm.).—Jacoby & Clavareau, 1905, Genera Insect. **33:** 13.—Jacoby, 1908, Fauna India, Coleopt. **2:** 91.—Chûjô, 1932, Trans. Nat. Hist. Soc. Formosa **22:** 312; 1951, Tech. Bull. Kagawa Agric. Coll. **3**(2): 63.

Temnaspis: Gressitt & Kimoto, 1961. Pac. Insects Monogr. **1A:** 29, 32 (in part).

Colobaspis is here resurrected after having been synonymized with *Temnaspis* in the preceding 1961 reference.

KEY TO SPECIES OF *Colobaspis*

1. Elytron entirely blackish 2
   Elytron yellowish brown with 3 black oblique markings; black, pronotum yellowish brown with a pair of large lateral and small basal markings black; posterior femur yellowish apically; length 10–12 mm (FIG. 8d) ..... **vitalisi**
2 (1). Ventral surfaces entirely brownish 3
   Ventral surfaces yellowish brown with metepimera blackish; legs rufous, with posterior tibia testaceous and posterior tarsus blackish; length 12–13 mm ..... **tricoloripes**
3 (2). Head yellowish brown with posterior ½ of occiput and vertex black, but in some specimens vertex brownish; occiput narrower, concave; yellowish brown; length 8 mm (FIG. 6b) ..... **nigriceps**
   Head entirely yellowish brown; occiput wider, convex; length 10 mm (FIG. 6c) ..... **insignis**

Colobaspis insignis (Baly) FIG. 6c

Temnaspis insignis Baly, 1859, Ann. Mag. Nat. Hist., ser 3, **3:** 208 (N India; BMNH).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 33, 35 (N India, Hainan).

Colobaspis insignis: Jacoby, 1908, Fauna India, Coleopt. **2:** 92 (N India).—Gressitt, 1942, Lingnan Sci. J. **20:** 288, pl. 14, fig. 3 (Hainan).

Temnaspis brunneipennis Pic, 1926, Mél. Exot. Entomol. **45:** 9 (Annam). **New synonymy.**

Distribution. N India, Vietnam, Laos, Hainan I.

The type of *Temnaspis brunneipennis* Pic, is a somewhat teneral specimen.

Material examined. LAOS: Sayaboury Prov., Umgeb. Paklay, 2 ex, 1963 (MUNCHEN); same locality, 1 ex, 5.V.1966, native collr (BISHOP).

Colobaspis nigriceps (Baly) FIG. 6b

Temnaspis nigriceps Baly, 1859, Ann. Mag. Nat. Hist., ser 3, **3:** 207 (Nepal; BMNH).

Colobaspis nigriceps: Jacoby, 1908, Fauna India, Coleopt. **2:** 91 (Nepal).

Colobaspis bicoloriceps Pic, 1922, Mél. Exot. Entomol. **37:** 8 (Laos; PARIS). **New synonymy.**

Distribution. Nepal, Laos.

Material examined. LAOS: Vientiane Prov.: Vientiane, 1 ex, 22.VII.1965, native collr (BISHOP); Umgeb. Vientiane, 2 ex, III–VI.1963; Sedone Prov., Umgeb. Pakse, 1 ex, 1864 (MUNCHEN); Wapikhamthong Prov., Khong Sedone, 1 ex, IX.1965, native collr; Sithandone Prov., Ile de Khong, 1 ex, 20.VII.1965, native collr; Borikhane Prov. Pakkading, 1 ex, 9.IX.1965, native collr (BISHOP).

Colobaspis tricoloripes Pic

Colobaspis tricoloripes Pic, 1927, Mél. Exot. Entomol. **49:** 22 (Tonkin; PARIS).

Distribution. N Vietnam.

No additional specimens.

According to the study on the type, this species closely resembles *T. nigriceps* but

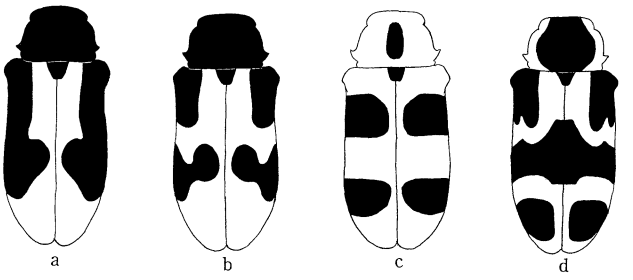

FIG. 9. a, *Colobaspis flavonigra* (drawn after specimen identified by Pic; Tibet). b, *C. atrithorax* (drawn after type; China). c, *C. nigrosignatus* (drawn from specimen from Nepal). d, *C. speciosus* (drawn from specimen from Darjeeling, N India.

is separable from it in having the metepimera blackish. We are not certain whether *tricoloripes* represents a discrete species or merely a color variation of *T. nigriceps* Baly (=*bicoloriceps* Pic).

Colobaspis vitalisi Pic FIG. 8d

Colobaspis vitalisi Pic, 1922, Mél. Exot. Entomol. **37:** 8 (Tonkin; PARIS).

Colobaspis pulcherrima Reineck, 1923, Dtsch. Entomol. Z. **1923:** 606 (Tonkin).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 36 (=*vitalisi*).

Temnaspis vitalisi: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 36 (Laos, Tonkin).

Distribution. N Vietnam, Laos.

No material other than type series.

Subfamily CRIOCERINAE

KEY TO GENERA OF CRIOCERINAE

1. Tarsal claws fused for basal ¼ to basal ½ 2
   Tarsal claws free, not fused at base 4
2 (1). Prothorax generally broader than long, or as broad as long, side rather strongly constricted at or behind middle; elytron rarely much more than 3× as long as broad 3
   Prothorax much longer than broad, sides hardly constricted; elytron 4× as long as broad (FIG. 11b) ..... **Ortholema**
3 (2). Occiput (upper interocular area) abbreviated, wider than long, with sides forming a front angle of 120° or so (FIG. 10e) ..... **Oulema**
   Occiput not abbreviated, not wider than long, with sides forming a front angle of less than 90° ..... **Lema**
4 (1). Head as broad as long 5
   Head longer than broad, constricted at side and above and behind eye; preocular portion of head as long as broad (Chûjô 1951; type: *Mecoprosopus fulvus* Chûjô; Taiwan, S China) (FIG. 10b, 11a) ..... **Mecoprosopus**
5 (4). Head with a transverse depression across top at constriction behind eye, and with a deep groove on side of constriction of neck continuing upward and forward as a groove setting off central portion of occiput; prothorax constricted near middle (FIG. 10c) ..... **Lilioceris**

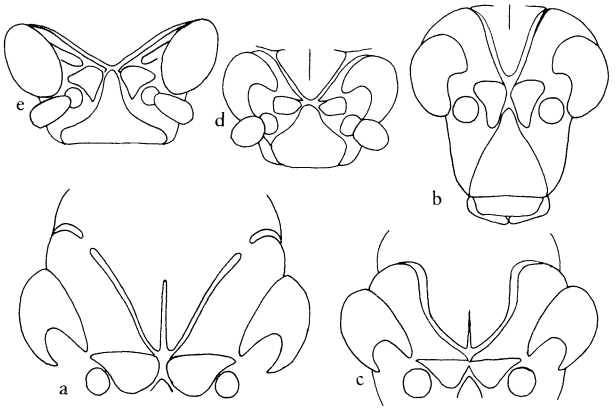

FIG. 10. Front view of head: a, *Crioceris quatuordecimpunctata* (from Europe, Siberia, N China, Korea, Japan); b, *Mecoprosopus minor* (from S China, Taiwan); c, *Lilioceris impressa*; d, *Lema* (*Lema*) *diversa* (from China, Korea, Japan); e, *Oulema* (*Gracilema*) *globicollis*.

Head without a transverse depression across top at constriction, and without a deep groove extending forward from constriction along sides of central portion of occiput (FIG. 10a) ..... **Crioceris**

Genus **Ortholema** Heinze

Ortholema Heinze, 1943, Stettin. Entomol. Ztg **104:** 108 (type: *P. abnormis* Heinze).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 37, 79.—Monrós, 1959, Opera Lilloana **3:** 228 (as a subgenus of *Oulema*).

KEY TO SPECIES OF *Ortholema*

1. Pronotum longitudinally grooved on basal ⅓ of median line; punctures arranged in somewhat irregular but distinct longitudinal rows; transverse basal groove shallow, indistinct; bluish black, in some specimens basal part of pronotum reddish brown to various degrees; length 5.0 mm ..... **elongatior**

   Pronotum without a basal median groove; punctures much finer; transverse groove deep, distinct; bluish black, in some specimens basal part of pronotum reddish brown to various degrees; length 4.2–4.8 mm (FIG. 11b) ..... **punctaticeps**

Ortholema elongatior (Pic)

Lema basithorax Pic, 1926 (nec 1924, from Saigon), Bull. Soc. Zool. Fr. **51:** 48 (Tonkin; PARIS).

Lema elongatior Pic, 1929, Bull. Soc. Zool. Fr. **54:** 138 (Tonkin; PARIS).

Lema homonyma Monrós, 1947, Acta Zool. Lilloana **4:** 169 (new name for *L. basithorax* Pic, 1926, nec 1924, Mél. Exot. Entomol. **41:** 11, Saigon). **New synonymy.**

Ortholema elongatior: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 80 (N Vietnam: Tonkin).

Distribution. Thailand, Laos, Vietnam.

Material examined. THAILAND: Lampang Prov., Lampang, 1 ex, 16.VII.1970, sweeping of paddy field, K. Yano (KU). LAOS: Vientiane Prov., Tha Ngone, 1 ex, 16.XI.1965, Native collr (BISHOP). VIETNAM: 6 km S of Dalat, 1400–1500 m, 2 ex, 9.VI.–7.VII.1961, N. R. Spencer (BISHOP).

Ortholema punctaticeps (Pic) FIG. 11b

Lema elongatior var. *punctaticeps* Pic, 1929, Bull. Soc. Zool. Fr. **54:** 138 (Tonkin; PARIS).
Ortholema abnormis Heinze, 1943, Stettin. Entomol. Ztg **104:** 108 (Canton; ZMB).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 80 (=*punctaticeps*).
Ortholema punctaticeps: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 80, fig. 19c (S China, Hainan).

Distribution. Laos, Cambodia, Vietnam, S China, Hainan.
Material examined. LAOS: Vientiane Prov., Vientiane, 1 ex, 8.V.1965, at light, P. D. Ashlock (BISHOP). CAMBODIA: Damrey Phong, 1 ex, 14–16.IV.1961 (BISHOP).

Genus **Oulema** DesGozis

Oulema DesGozis, 1886, Rech. l'Espece Typique: 33 (type: *Chrysomela melanopa* L.).—Monrós & Bechyné, 1956, Entomol. Arb. Mus. Frey **7**(3): 1121.—Monrós, 1959, Opera Lilloana **3:** 162, 223.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 75.—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13**(1): 120.
Ulema: Bedel, 1889, Faune Coleopt. Bassin Seine **5:** 116 (for *Oulema* DesGozis).
Hapsidolema Heinze, 1927, Entomol. Bl. **23**(4): 162.—Monrós & Bechyné, 1956, Entomol. Arb. Mus. Frey **7**(3): 1121 (=*Oulema*).—Monrós, 1959, Opera Lilloana **3:** 162 (type: *Lema gallaeciana* Heyden, =*lichensis* Weise).
Incisophthalma Heinze, 1929, Dtsch. Entomol. Z. **1929:** 289.—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 111 (=*Hapsidolema*).—Monrós, 1951, Acta Zool. Lilloana **11:** 480 (type: *L. infima* Lac.); 1959, Opera Lilloana **3:** 162 (=*Oulema*).
Xoidolema Heinze, 1931, Wien. Entomol. Ztg. **48**(4): 206 (type: *X. rhodesiana* Heinze; Africa).—Monrós, 1959, Opera Lilloana **3:** 162 (=*Oulema*).
Conradsia Pic, 1936, Mél. Exot. Entomol. **68:** 10 (type: *C. suturalis* Pic; Africa).—Monrós, 1959, Opera Lilloana **3:** 162 (=*Oulema*).

KEY TO SPECIES OF *Oulema*

1. Extreme apex of elytron briefly emarginate near sutural angle (subgenus *Gracilema*) 2
   Extreme apex of elytron not emarginate (subgenus *Oulema*); reddish to yellowish brown; suture and extreme margin of elytron (at least partly) black; meso- and metathorax and abdominal segment 1–2 mostly blackish; length 3.2–3.4 mm (FIG. 12a) ..... **atrosuturalis**
2 (1). Pronotum reddish brown and elytron blue 3
   Testaceous to orange-brown; elytral suture and inner margin of elytral epipleuron blackish; prothorax distinctly broader anteriorly than posteriorly and with a pair of parallel rows of strong punctures medially; length 3.0 mm ..... **iwatai**
3 (2). Abdomen entirely blackish 4
   Ventral surfaces reddish brown; head pitchy, pronotum reddish brown, elytron steel blue;

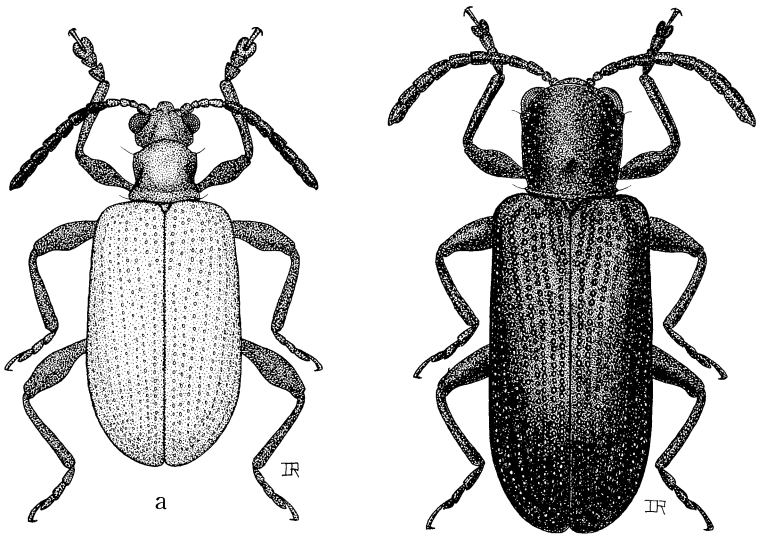

FIG. 11. a, *Mecoprosopus minor* (from S China, Taiwan). b, *Ortholema puncticeps*.

prothorax hardly broader anteriorly, with 2 converging rows of moderate punctures medially; length 3.8 mm (FIG. 10e) ..... **globicollis**

4 (3). Occiput distinctly raised and separated from behind, pronotum with a longitudinal row of punctures; black, pronotum reddish brown; elytron bluish; length 4.0 mm (Pic, 1923, Mél. Exot. Entomol. **38:** 10; Yunnan) ..... **yunnana***

Occiput not distinctly raised, pronotum with a pair of distinct, widely spaced longitudinal rows of punctures along median portion; black, pronotum reddish brown; elytron bluish; length 5.0 mm (Pic, 1924, Mél. Exot. Entomol. **41:** 10; Yunnan) ..... **subelongata***

Subgenus **Gracilema** Chûjô

Gracilema Chûjô, 1964, Nature and Life in SE Asia **3:** 257 (type: *Oulema* (*Gracilema*) *iwatai* Chûjô, 1934; monobasic).

Oulema (Gracilema) iwatai Chûjô

Oulema (*Gracilema*) *iwatai* Chûjô, 1964, Nature and Life in SE Asia **3:** 257 (Thailand; CHUJO).

Distribution. Thailand, Laos, Cambodia.

Material examined. LAOS: Vientiane Prov., Vientiane, 1 ex, 2–4.VI.1960, at light, S. &. L. Quate; same locality, 5 ex, 8–9.V.1965, at light, P. D. Ashlock (BISHOP). CAMBODIA: Damrey Phong, 1 ex, 14–16.IV.1961, N. R. Spencer (BISHOP).

Oulema (Gracilema) globicollis (Baly), **new combination** FIG. 10e

Lema globicollis Baly, 1865, Ann. Mag. Nat. Hist., ser 3, **4:** 168 (India; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 21 (India).

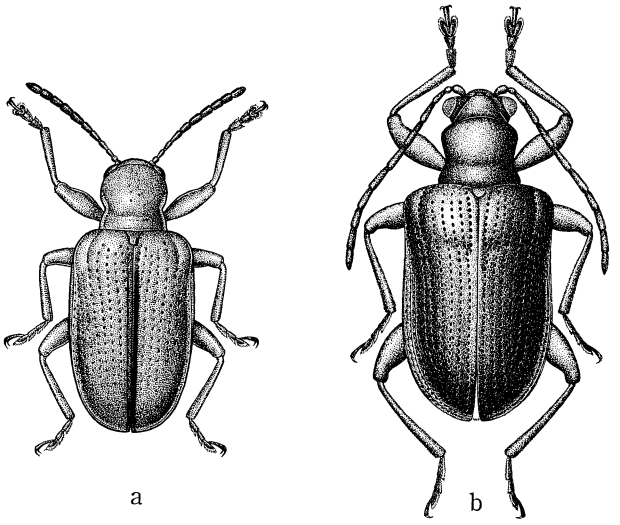

FIG. 12. a, *Oulema (Oulema) atrosuturalis*. b, *Lema (Lema) cyanea*.

Lema bengalensis Duvivier, 1891, Ann. Soc. Entomol. Belg. **35** (C. R.): xxvi (Bengal: Konbir-Nowatori).—Weise, 1903, Dtsch. Entomol. Z. **1903:** 23 (=*globicollis*).
Lema langana Pic, 1923, Mél. Exot. Entomol. **38:** 11 (Tonkin; PARIS). **New synonymy.**
Oulema subelongata: Gressitt & Kimoto (nec Pic, 1924), 1961, Pac. Insects Monogr. **1A:** 77, fig. 10e, 18b (S China).

Distribution. India, Thailand, Vietnam, S China.

Material examined. THAILAND: Chiang Mai Prov., Chiang Dao, 1 ex, 15.VI.1965, P. D. Ashlock (BISHOP); same locality, 3 ex, 19.VI.1965, K. Morimoto (KU).

Gressitt & Kimoto (1961) recorded *Oulema subelongata* (Pic) from S China. However, this record should be corrected to *O. globicollis* (Baly), because these specimens differ from *O. subelongata* in having the abdomen entirely brownish instead of blackish.

Subgenus **Oulema** DesGozis

Oulema (Oulema) atrosuturalis (Pic) FIG. 12a

Lema downesi: Baly (nec Baly, 1865), 1873, Trans. Entomol. Soc. London **1873:** 75 (Japan).—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 113, 118 (Formosa).
Lema atrosuturalis Pic, 1923, Mél. Exot. Entomol. **40:** 18 (Annam; PARIS).
Oulema atrosuturalis: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 76 (S China).—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13**(1): 120 (Japan); 1967, Kontyû **35:** 371 (Taiwan).

Yellowish testaceous, with elytral suture and margin black; parts of head and metathorax brown to pitchy; antenna pitchy beyond base. *Head* with a fovea on center of occiput and upper end of frontoclypeus acutely projecting between antennal support. *Antenna* ½ as long as body, with segment 5 about ½ again

as long as 4 and not much stouter, rest similar. *Prothorax* slightly broader anteriorly than posteriorly, strongly constricted behind middle, and with a pair of parallel rows of punctures medially. *Elytron* with 10 regular rows of punctures at middle, mostly punctures slightly larger than interspaces. *Ventral surfaces* finely punctured except near middle of apex of metasternum. *Legs* not very stout. *Length* 3.2–3.4 mm.

Distribution. Japan, Ryukyu Is, Taiwan, S China, Vietnam, Thailand.

Material examined. THAILAND: Chiang Mai Prov., Chiang Mai, 1 ex, 12.VI.1965, K. Morimoto; Mae Klang Waterfall, nr Chom Thong, 1 ex, 11.VI.1965, Morimoto (KU). VIETNAM: 20 km N of Pleiku, 650 m, 1 ex, 9.V.1960, S. Quate (BISHOP).

Genus **Crioceris** Müller

Crioceris (Geoffroy, 1762, Hist. Ins. Paris **1:** 237; nom. nud.).—Müller, 1764, Fauna Insect. Fridrich.: 13.—Latreille, 1810, Considerations generales: 432 (type designated as *Chrysomela merdigera* Linnaeus).—Curtis, 1830, Br. Entomol. **7:** 1823 (type designated as *Chrysomela asparagi* Linnaeus).—Lacordaire, 1845, Monogr. Phytoph. **1:** 226.—Jacoby, 1909, Fauna India, Coleopt. **2:** 71.—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 77.—Monrós, 1959, Opera Lilloana **3:** 150.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 38—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13:** 119, 133.—Selman & Smith, 1967, Bull. Zool. Nomencl. **24:** 116 (request to have *Chrysomela asparagi* Linnaeus, 1758 designated as type).—Crowson, 1967, Bull. Zool. Nomencl. **24:** 207 (support Selman & Smith's proposal).—[Opinion, 908], 1970, Bull. Zool. Nomencl. **27:** 12 (*Chrysomela asparagi* Linnaeus, 1758, designated type species, under plenary power; placed on Official List of Generic Names in Zoology).

Crioceris signatifrons Pic FIG. 13b

Crioceris signatifrons Pic, 1920, Échange **36:** 20 (Yunnan; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 40 (Tsinghai).

Testaceous brown above with median portion of head, occiput, scutellum and 6 fairly small spots on elytron, black; ventral surfaces largely pitchy, pale on borders of abdomen and on middle of basal portion of sternite 1; antenna black; legs testaceous with tarsi, apices of femora and bases and apices of tibiae. *Head* with subtriangular interocular area deeply grooved medially, separated from interantennal area by deep groove, and with upper portion of frontoclypeus projecting obtusely between antennal supports. *Antenna* stout, hardly ½ as long as body; segments 1, 2 and 4 subequal in length; 5–11 much stouter, a little longer, and subequal in length. Prothorax barely longer than broad, subcylindrical, slightly broader at base than at apex, barely broader anterior to middle than at base, and weakly constricted between middle and base; disc moderately punctured anteriorly, with a few subparallel rows of punctures extending onto center. *Elytron* not quite 3× as long as broad, subparallel from behind humerus to before apex; disc with 10 regular rows of punctures at middle, most punctures about as large as interspaces. *Ventral surfaces* moderately punctured at sides, nearly smooth medially. *Legs* short and stout; hind tarsal segment 1 distinctly shorter than 2 + 3. *Length* 5.9 mm; breadth 2.6.

Distribution. SW China, Vietnam.

Material examined. VIETNAM: 30 km NW of Pleiku, 300 m, 1 ex, 10.V.1960, L. W. Quate (BISHOP).

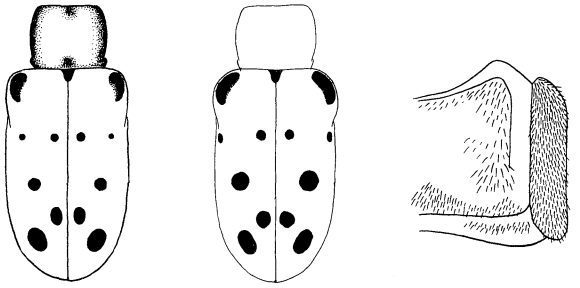

FIG. 13. a, *Crioceris multimaculata* [drawn after type; Mandar (Beng.), P. Cardon]. b, *Crioceris signatifrons*. c, *Lilioceris atrilateralis* (from Nepal), sternum and episternum.

Genus **Lilioceris** Reitter

Lilioceris Reitter, 1912, Fauna Ger. **4:** 79.—Heinze, 1927, Entomol. Bl. **23:** 163; 1931, Entomol. Nachrichtenbl. **5:** 53; 1937, Bull. Mus. R. Sci. Nat. Belg. **13**(25): 1 (type designated as *Chrysomela merdigera* Linnaeus, 1758).—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 80 (type referred as *Atelabus lilii* Scopoli, 1763).—Monrós, 1959, Opera Lilloana **3:** 144.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 42.—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13:** 119, 129.—Selman & Smith, 1967, Bull. Zool. Nomencl. **24:** 116 (request to have *Atelabus lilii* Scopoli, 1763, designated as type).—[Opinion, 908], 1970, Bull. Zool. Nomencl. **27:** 12 (*Atelabus lilii* Scopoli, 1763, placed on Official List of Generic Names in Zoology).—White, 1974, Bull. Zool. Nomencl. **31**(4): 200 (proposed amendment to Opinion 908, type as *merdigera* L.)

Baly (1889) recorded *Lilioceris subpolita* (Motschulsky) from Hue (Ann. Soc. Entomol. Fr., ser 6, **9:** 488; *Crioceris*). However, this record seems to be erroneous and this species is restricted to Japan at present.

KEY TO SPECIES OF *Lilioceris*

1. Elytron with a short scutellar row of punctures 2
   Elytron without a scutellar row of punctures (subgenus *Bradyceris* Chûjô, 1951; type *Crioceris lewisi* Jac., from Japan) ..... **lewisi***
2 (1). Elytron conspicuously raised at suture behind scutellum; elytral punctures extremely large, foveolate (subgenus *Chujoita*) 3
   Elytron not conspicuously raised at suture behind scutellum; elytral punctures not extremely large (subgenus *Lilioceris*) 4
3 (2). Preapical antennal segments hardly as long as wide; elytron almost entirely dark reddish brown; length 9.5–10.0 mm ..... **gibba**
   Preapical antennal segments fully 2× as wide as long; dorsal surface yellowish brown with a pitchy marking on middle of side; length 9.0–10.0 mm ..... **dromedaria**
4 (2). Elytron marked with yellow, blue or black, not entirely reddish 5
   Elytron entirely red or bronzy red 10

5 (4). Elytron red with yellow humeral patch 6
Elytron with other color combination 7
6 (5). Interocular area deeply grooved medially; prothorax feebly constricted at middle, minutely and irregularly punctured; elytron almost impunctate laterally; length 13.0 mm ..... **major**
Interocular area hardly grooved medially; prothorax strongly constricted at middle, with a pair of minute puncture rows along median line of disc; elytron almost impunctate on apical ⅓; length 6.0 mm ..... **luteohumeralis**
7 (5). Elytron with interobasal and apical areas bluish, rest yellow; head, pronotum, antenna, legs and ventral surfaces blackish blue; length 10 mm (Fig. 15a–c) ..... **adonis**
Elytron otherwise marked 8
8 (7). Dorsal surfaces black with humeral, or humeral and subapical markings brownish 9
Elytron reddish brown on basal ⅕, rest black; length 8.0–9.0 mm (Fig. 15d) ..... **bicoloripennis** (part)
9 (8). Elytron with an orange humeral patch, rest black; head, prothorax, underside, antenna and legs entirely black; length 8.5–9.5 mm ..... **scapularis**
Elytron with humeral and subapical transverse markings brownish, rest black; head, prothorax, underside, antenna and legs entirely black; length 10.0–11.2 mm ... **quadripustulata**
10 (4). Scutellum pubescent 11
Scutellum glabrous, or rarely with a few hairs basally 19
11 (10). Preapical antennal segments distinctly broader than long 12
Preapical antennal segments as long as or distinctly longer than broad 14
12 (11). Elytral punctate rows not uniform, generally strong postbasally and disappearing on apical ⅓, and sometimes on side also; scutellum pubescent on entire surface 13
Elytral punctate rows fairly uniform; scutellum pubescent on basal ⅔ and glabrous on apical ⅓; 5th antennal segment widest, triangular; length 8.0–9.0 mm ..... **bicoloripennis** (part)
13 (12). Elytron with 2 pairs of distinct foveae just behind basal elevation; preapical antennal segments fully 2× as broad as long; length 6.5–7.0 mm ..... **iridescens**
Elytron lacking 2 pairs of distinct foveae just behind basal elevation; preapical antennal segments hardly 1⅓× as wide as long; length 8.5–10.5 mm (Fig. 14j) ..... **discrepans**
14 (11). Elytron with a distinct transverse depression behind postbasal area; dark reddish brown to metallic brown; antenna strongly depressed 15
Elytron without distinct transverse depression behind postbasal area; ochraceous; antenna hardly depressed; antenna (1st segment excepted) legs and ventral surfaces of meso- and metathorax (median portion excepted) blackish, in some cases ventral surfaces and femora ochraceous; length 8.5–10.0 mm ..... **consentanea**
15 (14). Antenna black or blackish blue without any reddish or brownish portion; head and legs not entirely black, partly reddish, in many cases head and pronotum with bluish shimmer; length 8.5–9.5 mm (Fig. 16b) ..... **cyaneicollis**
Antenna reddish brown to metallic bronzy 16
16 (15). Dorsal surfaces reddish brown 17
Dorsal surfaces metallic bronzy; length 7.3–10.2 mm (Fig. 14f) ..... **rufometallica**
17 (16). Occiput not remarkably convex 18
Occiput remarkably convex, pronotum with 4 or 5 rows of distinct punctures; ochraceous; length 7.6 mm (Fig. 14i) ..... **rondoni, n. sp.**
18 (17). Reddish brown; pronotum with 1 or 2 rows of fine punctures on pronotum; length 8.0–9.0 mm (Fig. 14g) ..... **semipunctata**
Reddish to yellowish brown, pronotum with 3 or 4 rows of fine punctures; length 7.0–8.5 mm (Fig. 14l) ..... **latissima**
19 (10). Antenna slender, preapical segments fully 4× as long as wide; elytral punctate rows not uniform, generally strong postbasally and disappearing on apical ½ and side also 20
Antenna robust, preapical segments distinctly broader than long; elytral punctate rows fairly uniform, at most becoming gradually weaker toward apex 21

20 (19). Ochraceous; antenna, legs and ventral surfaces of meso- and metathorax blackish; length 9.0 mm ..... **nigropectoralis nigropectoralis**
Entirely ochraceous; length 9.0 mm (Gressitt 1942; SE China) ..... **nigropectoralis ochracea***
21 (19). Pronotal punctures randomly distributed on disc 22
Pronotal punctures arranged in 1 or 2 longitudinal rows; elytral punctures finer apically and outer interstices smooth, not raised; outer ½ of metasternum without any distinct stripe or dense hairs; length 8.5–11.0 mm (Fig. 14c) ..... **impressa**
22 (21). Elytral punctures finer apically and outer interstices smooth, not raised; metasternum without oblique stripe of hairs 23
Elytral punctures strong apically, with some of outer interstices distinctly raised; metasternum with a distinct oblique stripe of hairs laterobasally; length 8.0–11.0 mm (Fig. 14k) ..... **subcostata**
23 (22). Outer ½ of metasternum without a distinct stripe or dense hairs; length 9.5–10.5 mm .... **laosensis**
Outer ½ of metasternum without distinct oblique stripe of dense hairs, but with subevenly distributed hairs and wrinkled surface; length 8.2–9.5 mm (Fig. 14h, 16a) ..... **cheni**

Subgenus **Chujoita** Monrós

Chujoita Monrós, 1959, Opera Lilloana **3:** 148 (type: *Crioceris camelus* Duvivier; original designation).

Lilioceris (Chujoita) dromedaria (Baly)

Crioceris dromedaria Baly, 1861, J. Entomol. **1:** 279, pl. 13, fig. 2 (Cambodia; BMNH).
Crioceris rouyeri Pic, 1916, Mél. Exot. Entomol. **20:** 18 (Java; Paris).—Monrós, 1959, Opera Lilloana **3:** 175 (=*dromedaria*).
Crioceris foveolata Pic, 1922, Mél. Exot. Entomol. **33:** 33 (Cochinchina; Paris). **New synonymy.**

Distribution. Cambodia, Vietnam.
No additional material.

Lilioceris (Chujoita) gibba (Baly)

Crioceris gibba Baly, 1861, J. Entomol. **1:** 280, pl. 13, fig. 3 (China; BMNH).—Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 299 (Kwangtung).
Crioceris gibba var *lemoulti* Pic, 1916, Mél. Exot. Entomol. **19:** 17 (China; Paris).
Crioceris formosensis Chûjô, 1933, Sylvia **4:** 29, fig. (Formosa; TARI).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 48 (=*gibba*).
Lilioceris gibba: Heinze, 1943, Stettin. Entomol. Ztg **104:** 105 (Taiwan, Korea).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 42, 48 (China).
Lilioceris formosensis: Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 85, fig. 13 (Formosa).

Distribution. Vietnam, S China, Taiwan, Korea.
No additional material. A specimen of this species in Paris bears a Pic type-label with a name which has apparently not been published.

Subgenus **Lilioceris** Reitter

Lilioceris (Lilioceris) adonis (Baly) FIG. 15a–c

Crioceris adonis Baly, 1859, Trans. Entomol. Soc. London, ser 2, **5:** 150 (N India; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 78 (N India).

Crioceris superba Pic, 1914, Mél. Exot. Entomol. **19:** 16 (Yunnan; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 45 (=*adonis*).

Crioceris vitalisi Pic, 1930, Mél. Exot. Entomol. **56:** 2 (Tonkin; PARIS). **New synonymy.**

Lilioceris adonis: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 42, 45 (Tonkin).

Distribution. N India, Vietnam, Laos, S China.

Material examined. LAOS: Sayaboury Prov., Umgeb. Paklay, 1 ex, 1963; Sedone Prov., Umgeb. Pakse, 1 ex, 1963; Vientiane Prov., Umgeb. Vientiane, 1 ex, III–VI.1963 (MUNCHEN).

Lilioceris (Lilioceris) bicoloripennis (Pic), **new combination** FIG. 15d

Crioceris bicoloripennis Pic, 1938, Bull. Soc. Zool. Fr. **63:** 354 (Siam; ? PARIS).

Distribution. Thailand.

Material examined. THAILAND: Saraburi Prov., Phu Kae, 1 ex, 15.IX.1964 (BANGKHEN). LAOS: Vientiane Prov., Vientiane, 1 ex, 25.III.1966, J. H. Sedlacek; Dong Dok, 2 ex, 5.VIII.1965, native collr; Sedone Prov., Paksong, 1 ex, 26.VII.1965, native collr (BISHOP).

In the typical form, the elytron is brownish on basal 1/5 and the rest blackish. In most of the specimens before us, the elytron is entirely brownish. However, in 1 specimen, elytral coloration is intermediate between the nominal and entirely brownish forms. The type specimen could not be found in PARIS.

Lilioceris (Lilioceris) cheni Gressitt & Kimoto FIG. 14h, 16a

Lilioceris cheni Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 44, 46 (SE China; BISHOP).—Kimoto, 1967, Kontyu **35:** 370 (Taiwan).

Distribution. Thailand, Laos, S China, Taiwan.

Material examined. THAILAND: Phrae Prov., Phrae, 1 ex, 18.VI.1938; Uttaradit Prov., Uttaradit, 1 ex, 15.VI.1934, 1 ex, 15.VII.1934, 2 ex, 26.V.1937 (BANGKHEN). LAOS: Vientiane Prov.: Umgeb. Vientiane, 6 ex, II–VI.1963 (MUNCHEN); Vientiane, 2 ex, 21.IV.1965, J. Rondon; Ban Van Heua, 2 ex, 15.V.1965, 1 ex, 31.VIII.1965, native collr (BISHOP). Sayaboury Prov.: Umgeb. Paklay, 1 ex, 1963 (MUNCHEN); Sayaboury, 1 ex, 30.V.1965 (BISHOP). Sedone Prov., Umgeb. Pakse, 1 ex, 1963 (MUNCHEN); Khammouane Prov., Phon Tiou, 1 ex, 17.V.1965, native collr (BISHOP); [prov. unknown,] Umgeb. Vanky, 1 ex, 1964 (MUNCHEN).

Lilioceris (Lilioceris) consentanea (Lacordaire)

Crioceris consentanea Lacordaire, 1845, Monogr. Phytoph. **1:** 561 (Cochinchina; BMNH).

Distribution. Thailand, Laos, Vietnam.

Material examined. THAILAND: Chiangmai Prov., Chiangmai, 850 m, 2 ex, 24–27.IV.1953 (BANGKHEN); Doi Suthep, 1000 m, 1 ex, 10.VI.1965, K. Morimoto (KU); NW Chiangmai, Doi Suthep, 1278 m, 1 ex, 29.III–4.V.1958, T. C. Maa (BISHOP); Doi Suthep, 1 ex, 4–8.IV.1952, D. E. Thurman; Lampang Prov., Khun Tan Mts, 300–400 ft (90–120 m), 2 ex, V.1933, H. M. Smith (USNM). LAOS: Sedone Prov., Umgeb. Pakse, 25 ex, 1964; Vientiane Prov., Umgeb. Vientiane, 8 ex, III–VI.1963; Sayaboury Prov., Umgeb. Paklay, 2 ex, 1964 (MUNCHEN); Borikhane Prov., Pakkading, 2 ex, 9.IX.1965, native collr (BISHOP); [prov. unknown,] Umgeb. Vanky, 3 ex, 1963–1964 (MUNCHEN). VIETNAM: M'Drak, E of Ban Me Thout, 400–600 m, 2 ex, 8–19. XII.1960, C. M. Yoshimoto (BISHOP).

This species is distinctive in having the elytron without any transverse depression behind the postbasal area. Coloration of the ventral surfaces and legs is variable, as follows: 1) Ochraceous, antenna (1st segment excepted), legs and ventral surfaces of meso- and metathorax (median portion excepted) blackish . . . typical form; 2) Ochraceous, tibiae, tarsi and antennae blackish.

Two specimens, 1 each taken from Laos and S Vietnam, respectively, belong to the typical form. Another specimen collected in Vietnam (same data as the former) belongs to the 2nd form. The rest of the specimens occurring in Laos and Thailand all belong to the 2nd form, which is nothing but an infraspecific variation.

Lilioceris (Lilioceris) cyaneicollis (Pic) FIG. 16b

Crioceris cyaneicollis Pic, 1916, Mél. Exot. Entomol. **19:** 16 (China; ? PARIS).

Crioceris tonkinea Pic, 1916, Mél. Exot. Entomol. **19:** 16 (Tonkin; ? PARIS). **New synonymy.**

Crioceris cyaneitarsis Pic, 1921, Bull. Soc. Entomol. Fr. **1921:** 137 (Tonkin; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 48 (=*cyaneicollis*).

Crioceris guerryi Pic, 1921, Mél. Exot. Entomol. **33:** 2 (Yunnan; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 48 (=? *cyaneicollis*).

Crioceris cyaneitarsis var. *subviridicollis* Pic, 1932, Mél. Exot. Entomol. **59:** 10 (Tonkin).

Lilioceris shirakii Chûjô, 1943, Trans. Nat. Hist. Soc. Formosa **33:** 242, 570 (Formosa; TARI); 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 83, 87 (Formosa).—Kimoto, 1966, Esakia **5:** 22 (=*cyaneicollis*).

Lilioceris cyaneicollis: Gressitt & Kimoto, 1961, Pac, Insects Monogr. **1A:** 45, 48 (S China).

Distribution. Vietnam, S China, Taiwan, Ryukyu Islands.

The types of both *cyaneicollis* and *tonkinea* Pic were not found in PARIS. Specimens were identified by comparison with the series identified by Pic.

Material examined. VIETNAM: Tonkin, Chapa, 1 ex, [no date,] Jeanvoine (FREY).

Lilioceris (Lilioceris) discrepans (Baly) FIG. 14j

Crioceris discrepans Baly, 1879, Cistula Entomol. **2:** 316 (Siam; BMNH).

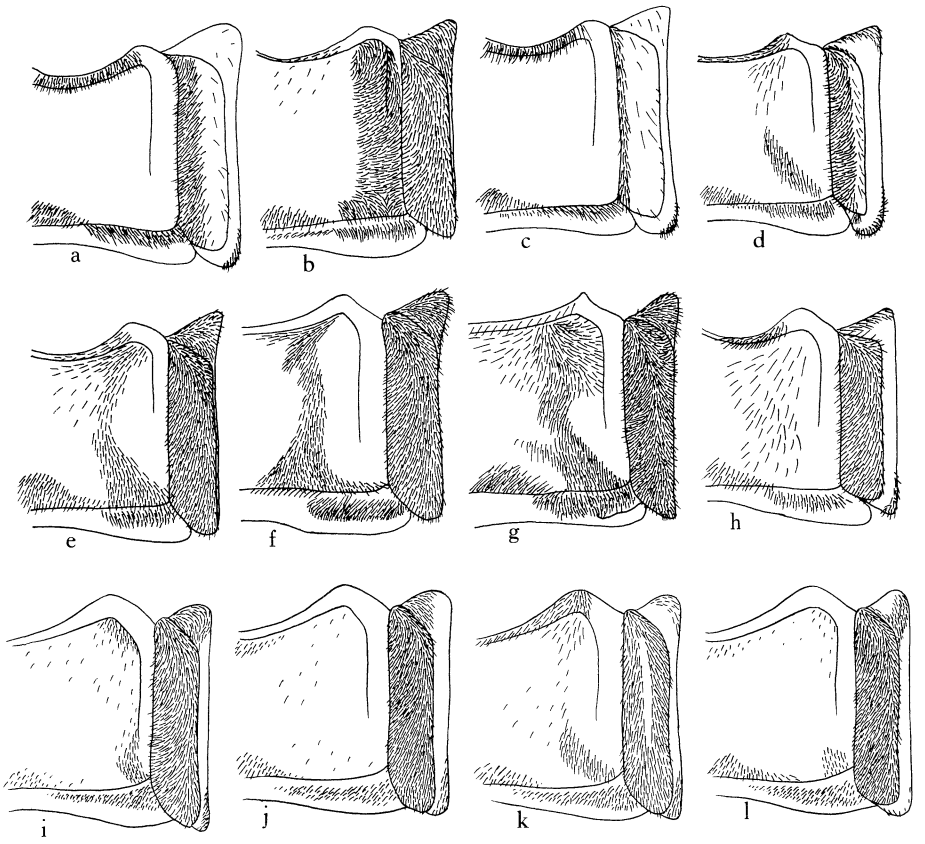

FIG. 14. Sterna and episterna: a, *Lilioceris* (*Lilioceris*) *egena* (from China, Taiwan, Hainan); b, *L.* (*L.*) *lateritia* (from China); c, *L.* (*L.*) *impressa;* d, *L.* (*L.*) *maai* (from China); e, *L.* (*L.*) *neptis* (from China, Taiwan); f, *L.* (*L.*) *rufometallica;* g, *L.* (*L.*) *semipunctata;* h, *L.* (*L.*) *cheni;* i, *L.* (*L.*) *rondoni;* j. *L.* (*L.*) *discrepans;* k, *L.* (*L.*) *subcostata;* l, *L.* (*L.*) *latissima.*

Distribution. Thailand, Laos.

Material examined. THAILAND: Phra Nakhon Prov., Bang Khen, 1 ex, 24.VI.1963; Saraburi Prov.: Saraburi, 2 ex, 21.V.1962; Phu Kae, 1 ex, 14.VI.1963, 1 ex, 8.VIII.1964 (BANGKHEN); Songkhla Prov., Kor Hong, 1 ex, 23.VI.1965, Y. Miyatake (KU). LAOS: Vientiane Prov.: Ban Van Heua, 20 km E of Phou Kow Kuei [Phou Khao Khoay], 1 ex, 1–15.V.1965, Rondon; 3 ex, 15–31.V.1965, native collr; Vientiane, 2 ex, 21.IV.1965, Rondon; Ban Tonpheng, 1 ex, 16.III.1966, 1 ex, 30.VI.1966, native collr; Nong Tevada, 1 ex, 17.VIII.1965, native collr (BISHOP); Umgeb. Vientiane, 16 ex, III–VI.1963; Sayaboury Prov.: Umgeb. Paklay, 3 ex, 1963 (MUNCHEN); Sayaboury, 1 ex, 5.V.1966, native collr (BISHOP); Sedone Prov.: Umgeb. Pakse, 3 ex, 1964 (MUNCHEN); Pakse, 1 ex, 15.IV.1965, Gressitt; 1 ex, 30.VI.1965, 1 ex, 31.IV.1965, 1 ex, 31.VII.1967, native collr (BISHOP); Borikhane Prov., Pakkading,

4 ex, X.1965, light trap, 2 ex, 23.IV.1965, J. L. Gressitt; 2 ex, 15.VI.1966, Rondon; 5 ex, 15.VI.1966, 2 ex, 13.V.1966, 5 ex, 3.VIII.1965, 1 ex, 10.V.1965, 1 ex, 17.V.1965, 1 ex, 31.VII.1965, 1 ex, 31.VIII.1965, 1 ex, 9.IX.1965, 4 ex, 5.IV.1966, 4 ex, 29.IV.1966, native collr; Sithandone Prov., Ile de Khong, 9 ex, 6.II.1965, 4 ex, 7.V.1965, 1 ex, 17.V.1965, native collr; Wapikhamthong Prov., Khong Sedone, 1 ex, 16.V.1965, 1 ex, 17.IX.1965, native collr; Khong Sedone, Wapi, 1 ex, 25.IV.1967, native collr. Khammouane Prov., Phon Tiou, 1 ex, 6.VII.1965, 1 ex, 11.IX.1965, native collr; Houa Khong Prov., Houai Sai, 1 ex, 3.II.1965, native collr (BISHOP); [prov. unknown,] Vanky, 3 ex, 1964 (MUNCHEN).

Lilioceris (Lilioceris) impressa (Fabricius) FIG. 10c, 14c

Crioceris impressa Fabr., 1787, Mant. Insect., **88** (Siam); 1792, Entomol. Syst. **2:** 6 (Siam).—Olivier, 1791, Encycl. Method. **6:** 197 (Siam, Sumatra); 1808, Entomologie **6:** 730, pl. 1, fig. 4 (Siam, Sumatra).—Lacordaire, 1845, Monogr. Phytoph. **1:** 562 (Sumatra, India).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4:** 32 (Borneo, Singapore, Java, Amboina, Manila).—Jacoby, 1908, Fauna India Coleopt. **2:** 72 (India, Ceylon, Andaman, Nicobar).

Lema impressa: Fabr., 1798, Suppl. Entomol. Syst. **90** (Siam); 1801, Syst. Eleuth. **1:** 471 (Siam).

Crioceris crassicornis Olivier, 1808, Entomologie **6:** 781, pl. 1 (Java).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4:** 32 (=*impressa*).

Crioceris castanea Lacordaire, 1845, Monogr. Phytoph. **1:** 564 (Indes oriental).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4:** 32 (=*impressa*).

Crioceris omophloides Lacordaire, 1845, Monogr. Phytoph. **1:** 564 (Malabar).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4:** 32 (=*impressa*).

Crioceris coomani Pic, 1928, Bull. Soc. Linn. Lyon **7:** 88 (Tonkin; PARIS). **New synonymy.**

Lilioceris impressa: Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2:** 83, 89 (Formosa).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 44, 51 (SE Asia, S China, Hainan, Taiwan).—Chûjô, 1961, Nature and Life in SE Asia **1:** 247, pl. 11, fig. 1 (Thailand); 1964, Nature and Life in SE Asia **3:** 255 (Thailand, Cambodia).—Kimoto, 1967, Esakia **6:** 66 (Darjeeling, Sikkim); 1970, Khumbu Himal **3**(3): 412 (Nepal); 1970, Spec. Bull. Lepid. Soc. Jpn, **4:** 169 (Nepal).—Kimoto & Takizawa, 1973, Kontyû **41**(2): 170 (Nepal).

Distribution. India, Sri Lanka, Ceylon, Nepal, Burma, Andamans, Nicobars, Malayan Islands, Thailand, Laos, Cambodia, Vietnam, S China, Hainan, Taiwan, Philippines, Sumatra.

Monrós (1959) treated *Crioceris laosensis* Pic as a synonym of this species, but *C. laosensis* is a valid species.

Material examined. THAILAND: Chiang Mai Prov.: Fang, 2 ex, 14.VI.1965, K. Morimoto, 2 ex, 14.VI.1965, Y. Miyatake; Mae Sa Waterfall, 1 ex, 16.VI.1965, Miyatake; Doi Puli, 1300 m, 1 ex, 17.VI.1965, Morimoto (KU); Chiang Mai, 3 ex,

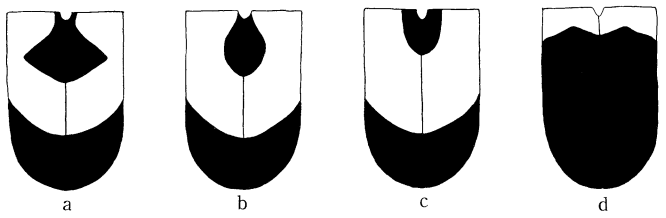

FIG. 15. a–c, *Lilioceris* (*Lilioceris*) *adonis* (b, *superba* type; c, *vitalisi* type). d, *L.* (*L.*) *bicoloripennis*.

17.IV.1958 (BANGKHEN); Chiang Dao, 450 m, 1 ex, 5–11.IV.1958, T. C. Maa; Fang, 4 ex, 12–19.IV.1958, Maa (BISHOP); Phrae Prov., Phrae, 17 ex, 18.VI.1938, 4 ex, 7.VIII.1938, 1 ex, 7.VI.1938; Loey Prov., Loey Distr., 1 ex, 13.IX.1966, J. S. Burton (BISHOP). LAOS: Vientiane Prov.: Umgeb. Vientiane, 32 ex, III–VI.1963 (MUNCHEN); Vientiane, 1 ex, 30.IV.1965, 1 ex, 3.VIII.1965, 1 ex, 4.VIII.1965, native collr; Phou Kow Kuei [Phou Khao Khoay], N of Vientiane, 720 m, 1 ex, 17.IV.1965, Gressitt; Dong Dok, 1 ex, 23.VIII.1965, native collr; Ban Van Heua, 20 km E of Phou Kow Kuei, 1 ex, 15–31.VI.1965, native collr; Ban Van Heua, 800 m, 2 ex, 11.IV.1965, Gressitt; 12 ex, 1–15.IX.1967, 2 ex, 31.VIII.1965, 3 ex, 30.IX.1965, 1 ex, 31.VII.1965, 1 ex, 15.VIII.1965, 3 ex, no additional data, native collr (BISHOP); Sayaboury Prov., Umgeb. Paklay, 4 ex, 1963 (MUNCHEN); Sayaboury, 1 ex, 15.IV.1965 (BISHOP). Wapikhamthong Prov., Wapi, Khong Sedone, 6 ex, 15–31.VI.1967, 8 ex, 1–31.VIII.1967, 6 ex, 24.V.1967, 4 ex, 18.IX.1965, native collr; Khong Sedone, 1 ex, 17.IX.1965, native collr; Sedone Prov., Pakse, 2 ex, 1963, 3 ex, 1964 (MUNCHEN); Paksong, 2 ex, 7.VI.1965, 3 ex, 16.V.1965, 2 ex, 6.VIII.1965, native collr; 1 ex, 17.V.1965, P. D. Ashlock; Attopeu Prov., Houai Khong, 3 ex, 31.V.1965, 1 ex, 20.VII.1965, native collr; Khammouane Prov., Phon Tiou, 1 ex, 18.VIII.1965, J. A. Rondon; 5 ex, 6.VII.1965, native collr; Borikhane Prov., Pakkading, 1 ex, X.1965, Gressitt; 1 ex, 15.VI.1966, 1 ex, 14.VII.1965, native collr; Sithandone Prov., Ile de Khong, 1 ex, 6.II.1965, native collr (BISHOP); [prov. unknown,] Vanky, 1 ex, 1963 (MUNCHEN). VIETNAM: Ap Hung Lam, 21 km NW of Dilinh, 1100 m, 1 ex, 29.IX–5.X.1960, C. M. Yoshimoto (BISHOP); Trang Bom, 48 km NW of Saigon, 2 ex, 23–25.VII.1932, 1 ex, 6.IX.1932, M. Poilane (USNM).

Lilioceris (Lilioceris) iridescens (Pic)

Crioceris iridescens Pic, 1916, Mél. Exot. Entomol. **20:** 17 (Yunnan; PARIS).—Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 300 (Yunnan).

Lilioceris iridescens: Medvedev, 1958, Entomol. Arb. Mus. Frey **9**(1): 108 (Yunnan).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 45, 51 (Yunnan).

Distribution. Thailand, SW China.

Material examined. THAILAND: Kanchanaburi Prov., Kanchanaburi, 400 m, 2 ex, 21.III.1962 (BANGKHEN).

Lilioceris (Lilioceris) laosensis (Pic), **resurrected from synonymy**

Crioceris laosensis Pic, 1916, Mél. Exot. Entomol. **19:** 16 (Laos; PARIS).

Lilioceris thibetana Pic, 1916, Mél. Exot. Entomol. **21:** 18 (Thibet; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 59 (? =*bechynei*). **New synonymy.**

Lilioceris bechynei Medvedev, 1958, Entomol. Arb. Mus. Frey **9**(1): 109 (Tien-Mu Shan; FREY);—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 44, 46 (E China).—Kimoto, 1970, Khmbu Himal **3**(13): 412 (Nepal); 1970, Spec. Bull. Lepid. Soc. Jpn **4:** 169 (Nepal).—Kimoto & Takizawa, 1973, Kontyû **41**(2): 171 (Nepal). **New synonymy.**

Distribution. Nepal, Thailand, Laos, S China.

Monrós (1959) treated *Crioceris laosensis* Pic as a junior synonym of *L. impressa* Fabricius. However, this treatment is erroneous. *L. bechynei* Medvedev is conspecific with *L. laosensis.*

Material examined. THAILAND: Chumphon Prov., Chumphon, 1 ex, 12.V.1956; Nakhon Ratchasima Prov., Nakhon Ratchasima, 1 ex, 8.IX.1963; Tak Prov., Tak, 5 ex, 23.VI.1959 (BANGKHEN). LAOS: Vientiane Prov.: Umgeb. Vientiane, 19 ex, II–VI.1963 (MUNCHEN); Ban Van Heua, 20 km E of Phou Kow Kuei [Phou Khao Khoay], 1 ex, 15–31.V.1965, 2 ex, 15–31.VI.1965, 1 ex, 16.VI.1966, native collr; Ban Van Heua, 3 ex, 15.V.1965, 1 ex, 15.VIII.1965, native collr; Ban Tonpheng, 1 ex, 14.IX.1965, native collr (BISHOP); Sedone Prov., Umgeb. Pakse, 1 ex, 1964 (MUNCHEN); Sithandone Prov., Ile de Khong, 3 ex, 6.II.1965, 1 ex, 17.V.1965, native collr; Sayaboury Prov., Sayaboury, 4 ex, 30.V.1965, native collr; Khammouane Prov., Phon Tiou, 2 ex, 18.VIII.1965, J. A. Rondon; 2 ex, 6.VII.1965, 1 ex, 11.IX.1965, native collr; Wapikhamthong Prov., Wapi, Khong Sedone, 1 ex, 13–15.VII.1967, native collr; Borikhane Prov., Pakkading, 1 ex, 29.IV.1966, native collr (BISHOP); [prov. unknown,] Umgeb. Vanky, 1 ex, 1963, 2 ex, 1964 (MUNCHEN).

Lilioceris (Lilioceris) latissima (Pic) FIG. 14l

Crioceris latissimus Pic, 1932, Mél Exot. Entomol. **59:** 10 (Tonkin; PARIS).

Distribution. Thailand, Laos, Vietnam.

Material examined. THAILAND: Chiang Mai Prov., Chiang Dao, 1 ex, 5–11.IV.1958, T. C. Maa (BISHOP); Chieng Dao, 1 ex, 15.VI.1965, Y. Miyatake (KU). LAOS: Vientiane Prov., Umgeb. Vientiane, 1 ex, III–VI.1963 (MUNCHEN); Sayaboury Prov., Sayaboury, 1 ex, 30.V.1965, native collr (BISHOP).

Lilioceris (Lilioceris) luteohumeralis (Pic)

Crioceris luteohumeralis Pic, 1923, Mél. Exot. Entomol. **38:** 10 (Tonkin; PARIS).—Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 301 (Hainan).

Lilioceris luteohumeralis: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 43, 53 (Tonkin, Hainan).

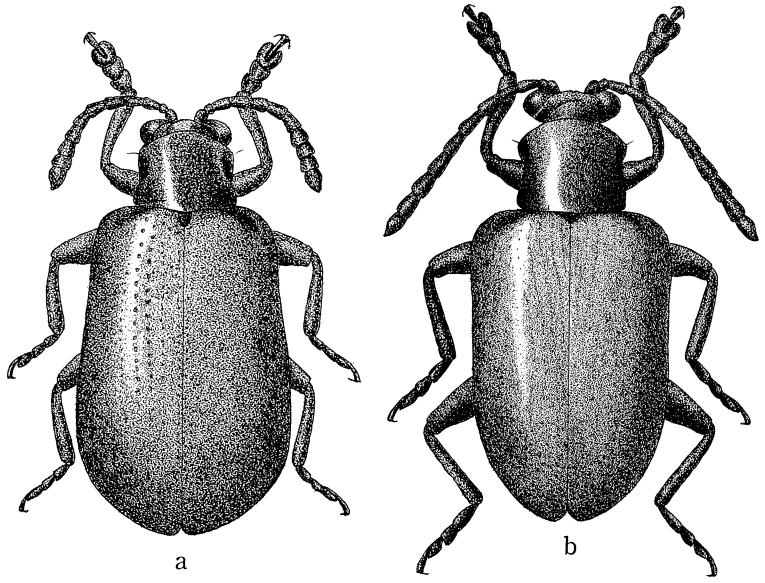

FIG. 16. a, *Lilioceris* (*Lilioceris*) *cheni*. b, *L.* (*L.*) *cyaneicollis*.

Distribution. Vietnam, Hainan.
No additional material.

Lilioceris (Lilioceris) major (Pic)

Crioceris major Pic, 1916, Mél. Exot. Entomol. **19:** 15 (Tonkin; ? PARIS).
Crioceris major var. *jeanovoinei* Pic, 1927, Mél. Exot. Entomol. **49:** 21 (Tonkin).
Lilioceris major: Gressitt & Kimoto, 1961. Pac. Insects. Monogr. **1A:** 54 (S China, Tonkin).

Distribution. Vietnam, S China.
No additional material. The type of *Crioceris major* was not found in PARIS. The identification was made from the series of specimens identified by Pic.

Lilioceris (Lilioceris) nigropectoralis (Pic)

Crioceris nigropectoralis Pic, 1928, Bull. Soc. Linn. Lyon **7:** 88 (Tonkin; PARIS).
Lilioceris ochracea yunnanica Medvedev, 1958, Entomol. Arb. Mus. Frey **9** (1): 110 (Yunnan).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 55 (=*nigropectoralis*).
Lilioceris nigropectoralis: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 55 (Yunnan, Tonkin).—Kimoto, 1967, Kontyû, **35:** 369 (Taiwan).

Distribution. SW China (Yunnan), Vietnam, Taiwan.
No additional material.

Lilioceris (Lilioceris) quadripustulata (Fabricius)

Crioceris quadripustulata Fabr., 1787, Mant. Insect. **1:** 88 (Siam).—Lacordaire, 1845, Monogr. Phytoph. **1:** 558 (Java).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 28 (Java, Malacca, Penang, Siam).—Jacoby, 1908, Fauna India, Coleopt. **2:** 78 (Burma).

Crioceris speciosa Fabricius, 1792, Entomol. Syst. **1**(2): 384 (Siam).

Crioceris quadripustulata var. *tschangana* Pic, 1932, Mél. Exot. Entomol. **60:** 32 (China).

Lilioceris quadripustulata: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 55 (Tonkin).

Distribution. Burma, Thailand, Laos, Vietnam, Malaysia, Java.

Material examined. THAILAND: Tak Prov., Tak, 5 ex, 28.VI.1958; Rayong Prov., Rayong, 1 ex, 11.VII.1945; Thon Buri Prov., Bangkok, 1 ex, 23.VI.1958; Prachin Buri Prov., Prachin Buri, 1 ex, 3.X.1958; Nakhon Prov., Ratchasima Nakhon Ratchasima, 1 ex, 23.VI.1958; Trang Prov., Trang, 3 ex, 1–18.IV.1960 (BANGKHEN). Chiang Mai Prov., Chiang Dao, 1 ex, 2.XI.1970, S. Nakao (KU). LAOS: Vientiane Prov.: Umgeb. Vientiane, 16 ex, III–VI.1963 (MUNCHEN); Ban Van Heua, 1 ex, 30.IX.1965, native collr; Nongtevada, 1 ex, 19.II.1966, native collr (BISHOP). Sedone Prov., Paksong, 1 ex, 15.VII.1965, native collr (BISHOP); Umgeb. Pakse, 6 ex, 1963–64; Sayaboury Prov., Umgeb. Paklay, 5 ex, 1963 (MUNCHEN); Borikhane Prov., Pakkading, 1 ex, 15.VI.1966, 1 ex, 13.V.1966, 2 ex, 31.VII.1965, native collr (BISHOP); [prov. unknown,] Umgeb. Vanky, 1 ex, 1963 (MUNCHEN). VIETNAM: 15 km SW Ban Me Thout, 450 m, 1 ex, 17.VI.1960, R. E. Leech (BISHOP).

Lilioceris (Lilioceris) rondoni Kimoto & Gressitt, **new species** FIG. 14i

Red ochraceous, slightly duller on scutellum; eye dull reddish brown; tarsal claws blackish; prosternum and parts of meso- and metapleura pitchy to blackish. Body largely glabrous above, with moderate whitish pubescence on scutellum and longer and finer pale hairs behind eye; ventral surfaces partially clothed with silvery pubescence, entirely covering metepisternum, and covering much of sides of abdominal sternites and outer portion of metasternum.

Head not quite as broad as prothorax, somewhat flattened above; occiput with a fairly smooth and glabrous triangular raised area between posterior portions of eyes and isolated by a deep groove on each side; interocular area otherwise somewhat closely punctured; interantennal space depressed in center, largely impunctate; frontoclypeus large, moderately convex, minutely and sparsely punctured; labrum fairly smooth, subtruncate apically; gena about $^4/_5$ as deep as eye; eye prominent, deeply emarginate internally, ¾ as wide as deep (in sense of length of head). *Antenna* reaching to end of basal $^1/_5$ of elytron, rather stout; segment 2 is ½ as long as 1; 3 slightly longer than 1; 3–5 increasing in length; 5–11 subequal in length, becoming gradually wider to 10 which is nearly as broad as long. *Prothorax* nearly as broad as long, slightly broader at base than near apex, deeply constricted at each side near middle; anterolateral angle rounded-obtuse; disc fairly smooth, with some irregular punctures on anterior ⅔ at central portion, and rest largely impunctate except near anterolateral angle. *Scutellum* slightly longer than broad, narrowed posteriorly. *Elytron* just over 3× as long as broad, subparallel, very slightly narrowed in basal ⅔, then evenly rounded apically; disc largely smooth, with a few large punctures on basal swelling and postbasal depression, mostly on sutural ½, and only a few moderate punctures on inner ½ of middle portion and none posteriorly or on external portion except for some vague ones in lateral groove parallel to external margin. *Ventral surfaces* fairly even, finely punctured in pubescent areas and largely impunctate on glabrous portions. *Legs* moderately stout; hind tarsal segment 1 only slightly longer than 2 or 3.

Length (holotype) 7.6 mm; breadth 2.8.
Paratypes. Length 7.3 mm; breadth 2.75.

Holotype (BISHOP 11,318), LAOS: [Sithandone Prov.] Ile de Khong, 17.V.1965, J. A. Rondon; paratypes: Sayaboury Prov., Sayaboury, 1 ex, 29.III.1966, native collr; Wapikhamthong Prov., Wapi, Khong Sedone, 1 ex, 25.IV.1967, native collr (BISHOP, KIMOTO); THAILAND: Chiangmai Prov., Doi Suthep, 1 ex, 28–31.III.1958, T. C. Maa (BISHOP).

Differs from *L. latissima* Pic in having frontoclypeus strongly convex and pronotum much more strongly punctate in middle.

Lilioceris (Lilioceris) rufometallica (Pic) FIG. 14f

Crioceris rufometallicus Pic, 1923, Mél. Exot. Entomol. **38:** 10 (Tonkin; PARIS).
Lilioceris rufometallica: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 45, 56 (Tonkin, Hainan).

Distribution. Thailand, Laos, Vietnam, Hainan.
Material examined. THAILAND: Chiang Mai Prov., Doi Suthep, 1000 m, 2 ex, 18–19.VI.1965, Y. Miyatake (KU); Tak Prov., Tak, 2 ex, 20.VIII.1961 (BANGKHEN). LAOS: Vientiane Prov., Ban Van Heua, 1 ex, 15.III.1966, malaise trap, 1 ex, 30.IX.1967, native collr; Ban Van Heua, SE of Phou Khao Khoay, 800 m, 1 ex, 12.IV.1965, Gressitt; Sedone Prov., Paksong, 1 ex, 16.V.1965, native collr; Sayaboury Prov., Sayaboury, 2 ex, 15.IV.1965, Rondon (BISHOP). VIETNAM: Blao (Balao), 500 m, 1 ex, 14–21.X.1960, C. M. Yoshimoto; Ap Hung-Lam, 21 km NW of Dilinh, 1100 m, 1 ex, 29.IX–5.X.1960, Yoshimoto; 6 km S of Dalat, 1400–1500 m, 1 ex, 9.VI–7.VII.1961, N. R. Spencer (BISHOP).

Lilioceris (Lilioceris) scapularis (Baly)

Crioceris scapularis Baly, 1859, Ann. Mag. Nat. Hist., ser. 3, **3:** 195 (N China; BMNH).—Chûjô, 1940, Trans. Nat. Hist. Soc. Formosa **30:** 351 (Korea).—Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 303 (S China).
Lilioceris scapularis: Heinze, 1943, Stettin. Entomol. Ztg **104:** 101 (Nin-po, Gensan, Tonkin).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 43, 56 (China, Hainan).—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13**(1): 130, 131 (Japan).

Distribution. Korea, Japan, S China, Vietnam.
No additional material.

Lilioceris (Lilioceris) semipunctata (Fabricius) FIG. 14g

Lema semipunctata Fabr., 1801, Syst. Eleuth. **1:** 472 (Sumatra).
Crioceris semipunctata: Lacordaire, 1845, Monogr. Phytoph. **1:** 558 (Java).—Baly, 1865, Trans. Entomol. Soc. London, ser. 3, **4**(1): 29, pl. 1, fig. 1 (Java, Borneo, Malacca, Sumatra, Celebes, Siam, India).—Jacoby, 1887, Proc. Zool. Soc. London, **1887:** 68 (Ceylon); 1908, Fauna India, Coleopt. **2:** 73 (India, Ceylon).
Lema dehaani Guerin 1844, Iconographie Règne Anim., Insect.: 261 (Java).

Crioceris dehaanii: Lacordaire, 1845, Monogr. Phytoph. **1:** 559 (Java).
Lilioceris semipunctata: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 45, 58 (Hainan).—Chûjô, 1964, Nature and Life in SE Asia **3:** 256 (Sarawak), Thailand).—Kimoto, 1967, Esakia **6:** 66 (Sikkim).—Kimoto & Takizawa, 1973, Kontyû **41**(2): 171 (Nepal).

Distribution. India, Sri Lanka (Ceylon), Nepal, Thailand, Hainan, Borneo, Sumatra, Java.

No additional material.

Lilioceris (Lilioceris) subcostata (Pic) FIG. 14k

Crioceris subcostata Pic, 1921 (12 May), Mél. Exot. Entomol. **33:** 2 (China; PARIS).
Crioceris ruficornis Pic, 1921 (late May or later), Bull. Soc. Entomol. Fr. **1921:** 136 (China; PARIS).
Lilioceris subcostata: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 59 (S China, Tonkin).

Distribution. S China, Laos, Vietnam, Thailand.

Material examined. THAILAND: Chiang Mai Prov., Fang, 1 ex, 14.VI.1965, Y. Miyatake; Trang Prov., Khao Chong, nr Trang, 1 ex, 26.VI.1965, Miyatake (KU); Phrae Prov., Phrae, 14 ex, 18.VI.1938; Saraburi Prov.: Saraburi, 2 ex, 19–20.VII.1956, 1 ex, 7.VII.1963; Muak Lek, 1 ex, 22.VIII.1964; Khao Yai [Natl. Park],[5] 1 ex, 14.VIII.1963; Thon Buri Prov., Bangkok, 1 ex, 21.IX.1963, 1 ex, 14.X.1963; Kamphaeng Phet Prov., Kamphaeng Phet, 1 ex, 11.IX.1963; Kanchanaburi Prov., Kanchanaburi, 1 ex, 11.VIII.1963; Chon Buri Prov., Chon Buri, 1 ex, 14.IX.1963 (BANGKHEN). LAOS: Khammouane Prov., Phon Tiou, 2 ex, 18.VIII.1965, J. A. Rondon; 6 ex, 6.VII.1965, 3 ex, 11.IX.1965, 1 ex, 17.V.1965, native collr (BISHOP); Vientiane Prov.: Umgeb. Vientiane, 15 ex, III–VI.1963 (MUNCHEN); Ban Van Heua, 1 ex, 15.VII.1965, 1 ex, 31.VII.1965, 1 ex, 1–15.IX.1967, 1 ex, 30.IX.1965, native collr; Gi Sion Vill, de Ban Tha Ngone, 1 ex, 10–24.X.1965, native collr; Vientiane, 1 ex, 21.IV.1965, Rondon; Borikhane Prov., Pakkading, 1 ex, 15.IX.1965, light trap, J. L. Gressitt; Sedone Prov.: Pakse, 2 ex, 30.VII.1965, native collr; Paksong, 2 ex, 17.V.1965, P. D. Ashlock (BISHOP); Umgeb. Pakse, 4 ex, 1964; Sayaboury Prov.: Umgeb. Paklay, 3 ex, 1963 (MUNCHEN); Sayaboury, 1 ex, 17.V.1965, 1 ex, 30.V.1965, native collr; Savannakhet Prov., Savannakhet, 1 ex, 20.VII.1965, native collr; Xieng Kouang Prov., Ban Sam Thang, 1 ex, 5.VI.1965, native collr; Attopeu Prov., Houay Kong, 1 ex, 31.V.1965, native collr (BISHOP). [prov. unknown,] Umgeb. Vanky, 2 ex, 1963 (MUNCHEN). VIETNAM: 28 km N of Dilinh, (Djiring), 900 m, 1 ex, 22–28.IV.1960, L. W. Quate; Ban Me Thout, 500 m, 1 ex, 16–18.V.1960, Quate (BISHOP).

Genus **Lema** Fabricius

Lema F., 1798, Suppl. Entomol. Syst.: 90; 1801, Syst. Eleuth. **1:** 471.—Lacordaire, 1845, Monogr. Phytoph. **1:** 303.—Jacoby, 1908, Fauna India, Coleopt. **2:** 15 (type: *Chrysomela cyanella* L.).—Kuwayama, 1932, J. Fac. Agric. Hokkaido (Imp.) Univ.

33: 67.—Chûjô, 1933, Sylvia **4:** 19; 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 90.—Monrós, 1959, Opera Lilloana **3:** 155.—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 59.—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13:** 119, 122.—Selman & Smith, 1967, Bull. Zool. Nomencl. **24:** 116 (request to have *Chrysomela cyanella* Linnaeus designated as type).—Crowson, 1967, Bull. Zool. Nomencl. **24:** 207 (request to have *Lema cyanea* Fabricius designated as type).—[Opinion, 908], 1970, Bull. Zool. Nomencl. **27:** 12 (*Lema cyanea* Fabricius, 1798, designated as type species, under plenary power; placed on Official List of Generic Names in Zoology).

Sulcatolema Pic, 1928, Bull. Soc. Entomol. Fr. **1928:** 96 (type: *Leptura cormandeliana* F.; India).—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 101.

Key to species of *Lema*

1. Elytron without scutellar row of punctures, or punctures in scutellar row much smaller than those of the others; punctures always regularly arranged in longitudinal lines, even on basal portion, and without extra punctures or minute ones in interstices (subgenus *Petauristes*) 2
   Elytron with a short scutellar row of punctures, or inner rows of punctures confused by extra punctures of similar size basally (subgenus *Lema*) 14
2 (1). Prothorax with a deep elongate and distinct fovea in middle 3
   Prothorax without such fovea 4
3 (2). Posterior femur extending beyond apex of elytron; dorsum reddish brown, except for a transverse band before and another behind middle, black; a spot at base of thorax and 1 on side, and elytron with suturobasal and small apical spot of black; length 8–9 mm (Fig. 18a) ..... **femorata**
   Posterior femur not extending beyond apex of elytron; dorsum reddish brown, elytron with a transverse band of black before and another behind middle; in some specimens these bands reduced or entirely absent; length 8–9 mm (Fig. 18b) ..... **quadripunctata**
4 (2). Last segment of maxillary palp enlarged 5
   Last segment of maxillary palp slender 6
5 (4). Large in size; antenna more slender, prothorax with a pair of shallow longitudinal furrows anterolaterally; entirely ochraceous; length 8.0 mm (Fig. 17e) ..... **palpalis**
   Small in size; antenna more robust, prothorax without a pair of longitudinal furrows; coloration of dorsal surface variable, entirely ochraceous, ochraceous with ventral surfaces blackish to various degrees, or dorsal surfaces ochraceous with variable blackish markings; pronotum with 4 spots; elytron with or without blackish markings which vary in size and shape, sometimes largely black, except for apical portion; ventral surfaces ochraceous but in some specimens blackish in various degrees; length 6.5–7.0 mm (Fig. 17a–d) .... **jansoni**
6 (4). Elytron bluish or greenish, not reddish or yellowish 7
   Elytron pale or partly pale, not entirely bluish or greenish 11
7 (6). Pronotum brownish and elytron entirely bluish 8
   Entirely bluish black 9
8 (7). Large in size, prothorax impressed with a transverse sulcus before basal margin shallower, punctures on median portion finer; entirely bluish black; length 7.0 mm ..... **viridicolor**
   Small in size, prothorax impressed with transverse sulcus before basal margin deeper, punctures on median portion stronger; entirely bluish black with vertex partly reddish; length 5.0–5.5 mm ..... **caerulescens, n. sp.**
9 (7). Elytron bluish, rest brownish or reddish 10
   Blackish; head and pronotum reddish brown; elytron bluish; length 6.0 mm ..... **honorata**
10 (9). Labrum yellowish brown; large in size; length 7.5–9.4 mm ..... **lacordairei**
   Labrum black; small in size; length 7.0 mm ..... **mouhoti**

11 (6). Antenna robust; entirely flavous or testaceous; length 7–8 mm ..... **indica**
Not with above combination of characters 12
12 (11). Preapical antennal segments at least 2× as long as wide or more slender 13
Preapical antennal segments nearly as long as wide; body elongate, subparallel-sided; antenna, legs and ventral surfaces black, rest reddish brown; length 7.0 mm ..... **crioceroides**
13 (12). Reddish to yellowish brown, ventral surfaces entirely brownish; antenna and tibiae blackish; length 7–11 mm ..... **pectoralis unicolor**
Reddish brown, ventral surfaces of thorax black; antenna and tibiae blackish; length 8 mm (Baly 1865; Malaya, Singapore) ..... **pectoralis pectoralis***
14 (1). Elytron unicolorous 15
Elytron at least bicolorous 36
15 (14). Elytron entirely yellowish to dark brown 16
Elytron entirely bluish 27
16 (15). Pronotum not entirely blackish but pale to dark brown 17
Pronotum blackish; elytron reddish brown, rest largely black; head blackish with frontal tubercles brownish in most specimens; pronotum with 2 distinct transverse furrows; length 5.5–6.0 mm ..... **nigricollis**
17 (16). Dorsal surfaces entirely reddish or brownish without bluish shimmer; small in size; length 4.5–7.0 mm 18
Dorsal surfaces entirely dark brown with bluish shimmer; large in size; elytron with 2 deep foveae behind subbasal area; pronotum with 2 distinct transverse furrows; length 8 mm ..... **impressipennis**
18 (17). Vertex distinctly raised, not flat 19
Vertex flat, closely covered with fine hairs; ochraceous; labrum and anterior portion of frontoclypeus blackish, antenna pitchy black with basal segments brownish, ventral surfaces brownish but in some specimens meso- and metathorax blackish in various degrees; pronotum with 2 distinct transverse furrows; length 4.2–5.3 mm ..... **rugifrons**
19 (18). Mid- and hind legs entirely or largely black 20
Legs entirely or largely brownish or paler 25
20 (19). Legs not entirely black; elytral punctures small, distinctly narrower than interstices between rows 20
Legs entirely black; elytral punctures large, distinctly wider than interstices between rows; head reddish brown with labrum and frontoclypeus blackish, ventral surfaces entirely black; length 5.4–5.7 mm ..... **rondoniana, n. sp.**
21 (20). Pronotum with only 1 transverse furrow 22
Pronotum with 2 transverse furrows, 1 subbasal, another anterior to middle; ventral surfaces entirely black; legs black with inner surface of fore femur reddish; length 5.6–5.8 mm ..... **perplexa**
22 (21). Ventral surfaces entirely black 23
Meso- and metathorax black; abdomen reddish brown; legs black with fore legs reddish brown; length 4.6–5.1 mm ..... **phungi**
23 (22). Head reddish brown 24
Head pitchy black with vertex reddish brown; legs black with anterior leg partly reddish; length 5.0 mm ..... **jeanvoinei**
24 (23). Legs reddish brown with posterior femora blackish; length 6.5–8.0 mm ..... **demangei**
Anterior legs reddish brown, middle and hind legs entirely black; length 5.0–7.0 mm ..... **lacertosa**
25 (19). Pronotum with only 1 transverse furrow; ventral surfaces entirely brownish 26
Pronotum with 2 transverse furrows; meso-and metathorax and basal segments of abdomen blackish, rest brownish; length 5.5–5.8 mm ..... **feae**
26 (25). Antenna yellowish brown; length 4.5–5.6 mm ..... **saigonensis**
Antenna blackish or pitchy; length 5–6 mm ..... **rufotestacea**
27 (15). Pronotum with a subbasal transverse furrow only 28

Pronotum with 2 transverse furrows, 1 subbasally and another before middle; coloration very variable, 1) reddish brown with elytron, antenna and legs blackish, in some cases with ventral surfaces bluish to various degrees, 2) blackish blue to bluish brown (see also couplet 42); length 5.0–6.5 mm ..... **coromandeliana**

28 (27). Elytron bluish and pronotum at least in part brownish 29
Dorsal surfaces entirely bluish; occiput not distinctly raised and with a short longitudinal sulcus starting from apex of occiput; blackish blue; in most cases vertex with a minute reddish marking anterolaterally; length 4.0–5.0 mm ..... **cyanea**

29 (28). Pronotum entirely brownish 30
Pronotum reddish brown with basal portion blackish blue; blackish blue, with vertex in part brownish; length 6.0 mm ..... **basithorax**

30 (29). Larger than 5.0 mm in length 31
Smaller than 5.0 mm; elytron blackish blue; head and antenna bluish black; pronotum and legs largely reddish brown; tarsi sometimes blackish; vertex sometimes with a small reddish marking; length 4.0–4.5 mm ..... **diversitarsis**

31 (30). Ventral surfaces mostly blackish 32
Ventral surfaces mostly brownish or paler 35

32 (31). Legs largely blackish, pronotum, vertex and posterior ½ of frontoclypeus brownish; elytron bluish, rest blackish 33
Legs yellowish brown; elytron violaceous blue; head, antenna and pronotum testaceous; ventral surfaces entirely blackish; length 5.0–5.4 mm ..... **spenceri, n. sp.**

33 (32). Pronotum distinctly constricted behind middle and impressed with minute punctures on median portion 34
Pronotum strongly constricted behind middle and with a pair of longitudinal rows of punctures; black, head reddish brown with labrum and frontoclypeus black; prothorax reddish brown; length 6 mm ..... **tonkinea**

34 (33). Lateral portion of metasternum not covered with fine pubescense; black, head reddish brown with frontoclypeus and labrum blackish, prothorax reddish brown; length 5.5–6.0 mm ..... **balyana**
Lateral portion of metasternum thickly covered with fine pubescence; black, head reddish brown with labrum and frontoclypeus black; prothorax reddish brown; length 6.4–6.6 mm ..... **cambodiae, n. sp.**

35 (31). Legs blackish; ventral surfaces reddish brown with side of metathorax blackish; antenna black; elytron bluish black; pronotum reddish brown; length 5.5 mm ..... **fleutiauxi**
Legs reddish brown with apical ⅔ of tibiae infuscate; ventral surfaces entirely reddish brown; antenna black; elytron bluish green; pronotum reddish brown; length 6.0–7.0 mm ..... **miyatakei, n. sp.**

36 (14). Pronotum and apex of elytron ochraceous; rest of elytron bluish or blackish 37
Without above color combination 41

37 (36). Occiput distinctly raised and not flat 38
Occiput flat, closely covered with fine hairs; yellowish brown, elytron blue with apex yellowish brown; length 5.0 mm ..... **breveapicalis**

38 (37). Pronotum with a transverse groove anterior to middle; ventral surfaces of thorax blackish and abdomen brownish 39
Pronotum lacking a transverse groove anterior to middle; ventral surfaces entirely brownish or paler 40

39 (38). Legs blackish with part of femur brownish; length 6.0 mm ..... **cyaneopectoralis**
Legs entirely black; length 7.0 mm ..... **castaneithorax**

40 (38). Large in size; elytron strongly depressed postbasally; preapical antennal segments nearly 3× as long as wide; reddish brown, elytron bluish or violaceous with apex reddish brown, frontoclypeus and labrum blackish; length 6.5 mm ..... **birmanica**
Small in size; elytron very feebly depressed postbasally; preapical antennal segments nearly 2× as long as wide; reddish brown, elytron blackish with apex reddish brown, frontoclypeus and labrum blackish, antenna pitchy black with basal segments paler; length 5.0 mm ..... **barbieri**

41 (36). Pronotum with a transverse groove anterior to middle 42
Pronotum lacking a transverse groove anterior to middle 43

42 (41). Elytron with 2 black spots placed obliquely longitudinal; reddish brown with frontoclypeus and labrum and ventral surfaces black, and antenna pitchy black with basal segments brownish; length 5.5 mm (FIG. 18e) ..... **nigrosignata**
Elytron fulvous with a broad longitudinal bluish band, rather abruptly narrowed at base (FIG. 18f) but in some specimens basal portion of the band much reduced (FIG. 18g, h); head reddish brown with labrum and frontoclypeus blackish; reddish brown, in some cases with meso- and metathorax blackish in various degrees; antenna and legs blackish; length 5.0–6.5 mm (FIG. 18f, g, h) ..... **coromandeliana** (parts)

43 (41). Elytron reddish brown with basal and postmedian transverse bands bluish; reddish brown, with labrum and anterior portion of frontoclypeus blackish 44
Elytron without above mentioned coloration 45

44 (43). Legs entirely yellowish brown; ventral surfaces of thorax and abdomen almost entirely reddish brown; antenna dark brown; length 4.0–5.8 mm (FIG. 18c) ..... **nigrobifasciata**
Mid and hind legs blackish and anterior 1 reddish brown; ventral surfaces of thorax black and abdomen reddish brown; antenna pitchy black; length 4.0–5.2 mm (FIG. 18d) ..... **delauneyi**

45 (43). Elytron reddish brown with a postscutellar round marking and apical ⅓ bluish 46
Elytron without above mentioned coloration 47

46 (45). Legs black; head reddish brown with labrum and frontoclypeus blackish; antenna and ventral surfaces of thorax and abdomen black; length 5.0 mm (FIG. 19b) ..... **nigrobimaculata**
Legs ochraceous; head reddish brown with frontoclypeus black, ventral surfaces of thorax and abdomen black, antenna ochraceous; length 5.0 mm (FIG. 19a) ..... **diversesignata**

47 (45). Extreme apex of elytron blackish 48
Extreme apex of elytron brownish or pale 50

48 (47). Elytral suture always blackish; legs testaceous 49
Elytron reddish brown with lateral margin and apex blackish; black, pronotum orange castaneous; length 5.3–5.6 mm (FIG. 19e) ..... **morimotoi, n. sp.**

49 (48). Elytron reddish brown with humeral marking, sutural and apical margins blackish; reddish brown with anterior portion of head, antenna and basal portion of prothorax blackish; ventral surfaces in parts blackish; legs blackish with femora in parts brownish; length 5.0 mm (FIG. 19c) ..... **viridiapicalis**
Elytron reddish brown with sutural and apical portions widely blackish; sutural marking wider on basal portion; prothorax reddish brown, head reddish brown with anterior portion black, antenna and ventral surfaces black; legs black with femora partly brownish; length 5.0 mm (FIG. 19d) ..... **atromarginata**

50 (47). Elytron with sutural stripe and usually also with a lateral stripe 51
Elytron with a large humeral and subapical marking, both black; ochraceous, labrum and anterior portion of frontoclypeus blackish; length 5.7 mm (FIG. 19f) ..... **quadriplagiata**

51 (50). Elytron with a lateral blue stripe 52
Elytron without a lateral blue stripe, with external margin pale or partly pitchy, with sometimes a small humeral spot; testaceous, ventral surfaces of meso- and metathorax, black; length 3.8–4.3 mm (FIG. 19g, h) ..... **enigmatica, n. sp.**

52 (51). Labrum black; lateral bluish stripe covering lateral margin; reddish brown, legs with tarsus and apex of tibiae blackish, antenna black with basal 1 or 2 segments brownish; length 4.0–5.3 mm (FIG. 20c, d) ..... **trifasciata**
Labrum pale; lateral bluish stripe not covering lateral margin; reddish brown, legs with tarsus and apex of tibiae blackish; ventral surfaces blackish on median portion; antenna pitchy brown; length 4.0–5.8 mm (FIG. 20b) ..... **externevittata**

Subgenus **Petauristes** Latreille

Petauristes Latreille, 1829, *in* Cuvier Règne Anim. **5:** 136.—Monrós & Bechyné, 1959, Entomol. Arb. Mus. Frey **7**(3): 1121 (type: *Lema crassipes* Oliv.; Madagascar).—Monrós, 1959, Opera Lilloana **3:** 158.

Bradylema Weise, 1901, Arch. Naturgesch. **67:** 146.—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 93.—Monrós, 1951, Acta Zool. Lilloana **11:** 481 (type designated as *B. rusticella* Weise).

Pseudolema Pic, 1928 (nec Jacoby, 1903), Bull. Soc. Entomol. Fr. **1928:** 96 (type: *Lema akinini* Heyden; Turkestan).

Bradylemoides Heinze, 1930, Rev. Zool.-Bot. Afr. **20**(1): 28.—Monrós, 1951, Acta Zool. Lilloana **11:** 481 (type: *B. grossa* Thomson) (=*Petauristes*).

Microlema Pic, 1932, Mél. Exot. Entomol. **60:** 33 (n. n. for *Pseudolema* Pic, 1928).—Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 100.

Enoplolema Heinze, 1943, Entomol. Bl. **39:** 23 (type: *L. abhaerens* Weise; New Guinea).—Monrós, 1959, Opera Lilloana **3:** 158 (=*Petauristes*).

Lema (Petauristes) caerulescens Kimoto & Gressitt, **new species**

Elongate, subparallel-sided. Blackish blue, frons in part reddish; antenna reddish brown.

Head as broad as prothorax, vertex finely punctured; occiput distinctly swollen, with a fine median groove posteriorly; gena rather closely punctured, nearly ⅓ as deep as eye. *Antenna* ¾ as long as body; segment 1 oval; 2 much shorter, slightly longer than broad; 3 as long as 1, more slender; 4 slightly longer than 3; 5 longer; 5–7 subequal; 8–11 shorter, subequal. *Prothorax* nearly as long as broad, obtusely rounded anterolaterally, moderately constricted just behind middle, slightly broader at base than behind apex; disc fairly smooth and convex, with some fairly widely spaced punctures on median portion and on anterolateral portion. *Scutellum* suboblong, longer than broad. *Elytron* 4× as long as broad, subparallel-sided, gradually rounded externally to apex, disc with 10 regular rows of deep punctures, mostly larger than interspaces on central portion, without extra scutellar rows. *Ventral surfaces* minutely punctured. *Legs* fairly stout; hind tarsal segment 1 slightly shorter than 2 + 3, shorter than last.

Length 5.5 mm; breadth 2.0 mm.

A second specimen, probably this species, has occiput entirely bluish and vertex with a reddish longitudinal stripe; antennal segment 1 bluish (rest lacking); length 5.0, breadth 2.0 mm.

Distribution. Thailand, Laos.

Holotype (Bishop 11,319), THAILAND: NW Chiang Mai Prov., Chiang Dao, 450 m, 5–11.IV.1958, T. C. Maa. Paratype: LAOS: [Vientiane Prov.], nr Phou Kow Kuei [Phou Khao Khoay], N of Vientiane, 720 m, 1 ex, 17.IV.1965, J. L. Gressitt (Kimoto).

This new species somewhat resembles *Lema viridicolor* Pic from Tonkin in having entirely bluish coloration, but differs from it in having the body length shorter, prothorax impressed with a deeper transverse sulcus before basal margin, and punctures on median portion stronger. Also, this species somewhat resembles *L. rufolineata* Pic from Yunnan and *L. bimaculipennis* Pic from Tibet, but differs in the absence of a short scutellar row of punctures on elytron.

Lema (Petauristes) crioceroides Jacoby

Lema robusta Jac., 1892 (nec Lacordaire, 1845), Ann. Mus. Civ. Genova **32:** 869 (Burma; Genova).

Lema crioceroides Jac., 1893, Ann. Soc. Entomol. Belg. **37:** 271 (n. n. for *L. robusta* Jac., nec *L. robusta* Lac., 1845); 1908, Fauna India, Coleopt. **2:** 31 (Burma).

Lema semiopaca Pic, 1931, Bull. Soc. Linn. Lyon **10:** 139 (Tonkin; PARIS). **New synonymy.**

Distribution. Burma, Thailand, Laos, Vietnam.

Material examined. THAILAND: Phrae Prov., Phrae, 1 ex, 22.V.1938, 1 ex, 7.VII.1938, 1 ex, 18.VI.1958, 1 ex, 7.VIII.1958 (BANGKHEN); Chiang Mai Prov., Mae Sa Waterfall, 1 ex, 16.VI.1965, K. Morimoto (KU). LAOS: Wapikhamthong Prov., Khong Sedone, 3 ex, 17.IX.1965, native collr; Sithandone Prov., Ile de Khong, 1 ex, 6.II.1965, native collr; Vientiane Prov.: Ban Van Heua, 20 km E of Phou Khao Khoay, 1 ex, 1–15.IV.1965, native collr; Vientiane, 1 ex, 21.IV.1965, J. A. Rondon (BISHOP); Umgeb. Vientiane, 1 ex, 1963; [prov. unknown,] Umgeb. Vanky, 1 ex, 1963 (MUNCHEN). VIETNAM: Tonkin, Hoa-Binh, 1 ex, A. Cooman (FREY).

Lema (Petauristes) femorata Guérin-Menéville FIG. 18a

Lema femorata Guérin, 1844, Iconographie Règne Anim., Insectes 259 (Java).—Lacordaire, 1845, Monogr. Phytoph. **1:** 316 (Java).—Jacoby, 1889, Fauna India, Coleopt. **2:** 56, fig. 8 (Assam, Sumatra, Borneo).—Chûjô, 1964, Nature and Life in SE Asia **3:** 253 (Thailand).

Distribution. India, Thailand, Laos, Borneo, Sumatra, Java.

Material examined. THAILAND: Kanchanaburi Prov., Kanchanaburi, 400 m, 1 ex, 22.V.1962; Nan Prov., Nan, 1 ex, 9.VII.1963; Saraburi Prov., Khao Yai [Natl. Park],[5] 1 ex, 10.IV.1963, 1 ex, 10.II.1964 (BANGKHEN). Chiang Mai Prov., Chiang Dao, 450 m, 3 ex, 5–11.IV.1958, T. C. Maa (BISHOP). LAOS: Sayaboury Prov., Sayaboury, 1 ex, 30.V.1965, 1 ex, 3.VIII.1965, 1 ex, 21.IV.1966, native collr; Sedone Prov., Paksong, 1 ex, 16.V.1965 (BISHOP).

Lema (Petauristes) honorata Baly

Lema honorata Baly, 1873, Trans. Entomol. Soc. London **1873:** 73 (Japan; BMNH). Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 94, 96 (Formosa).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 60, 74 (China, Korea).—Kimoto, 1964, J. Fac. Agric. Kyushu Univ. **13:** 123–24 (Japan).

Lema infracyanea Pic, 1924, Mel. Exot. Entomol. **41:** 11 (Tonkin; PARIS). **New synonymy.**

Distribution. Thailand, Vietnam, China, Taiwan, Japan, Korea.

Material examined. THAILAND: NW Chiang Mai Prov., Chiang Dao, 450 m, 1 ex, 5–11.IV.1958, J. L. Gressitt (BISHOP).

Lema (Petauristes) indica Jacoby

Lema indica Jac., 1895, Ann. Soc. Entomol. Belg. **39:** 252 (Burma; BMNH). 1908, Fauna India, Coleopt. **2:** 30 (Burma).—Chûjô, 1964, Nature and Life in SE Asia **3:** 253 (Thailand).

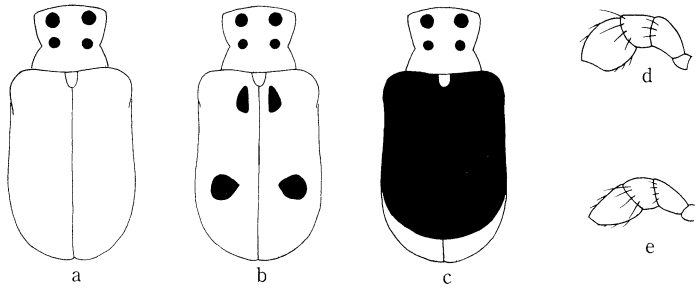

FIG. 17. a–c, *Lema (Petauristes) jansoni.* d–e, maxillary palpus: d, *L. (P.) jansoni;* e, *L. (P.) palpalis.*

Distribution. Burma, Thailand.
No additional material.

Lema (Petauristes) jansoni Baly FIG. 17a–d

Lema jansoni Baly, 1861, J. Entomol. **1:** 277 (India; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 52 (as var. of *histrio*).

Lema histrio Clark, 1866, Cat. Phytoph. Append. **29** (India, Thailand, BMNH).—Jacoby, 1884, Ann. Mus. Civ. Genova **20:** 193 (Celebes, Java); 1908, Fauna India, Coleopt. **2:** 52, fig. 7 (Eastern India, Thailand).—Kimoto & Takizawa, 1973, Kontyû **41**(2): 170 (Nepal).

Distribution. India, Nepal, Thailand, Laos, Vietnam, Celebes, Java.
Host. Pandanus sp.
Material examined. THAILAND: Nakhon Si Thammarat Prov., Banna, Chawang nr Nabon, 70 m, 6 ex, 4.IX.1958, Gressitt, on *Pandanus* (BISHOP); Chiang Mai Prov., Doi Suthep, 1000 m, 1 ex, 12.VI.1965, K. Morimoto (KU). LAOS: Sithandone Prov., Ile de Khong, 1 ex, 6.II.1965, native collr; Vientiane Prov., Ban Van Heua, 20 km E of Phou Khao Khoay, 1 ex, 15–31.IV.1965, native collr; Luang Prabang Prov., Muong Sing, NW of Luang Prabang, 650 m, 1 ex, 6–10.VI.1960, S. & L. Quate; VIETNAM: Fyan, 900–1000 m, 1 ex, 11.VII.–9.VIII.1961, Spencer; 15 km SW of Ban Me Thout, 450 m, 1 ex, 17.VI.1960, R. Leech (BISHOP).

Lema (Petauristes) lacordairei Baly

Lema cyanipennis: Lacordaire (nec Fabricius, 1801), 1845, Monogr. Phytoph. **1:** 370 (S India: Malabar).

Lema lacordairei Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 23 (Bengal; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 23, pl. 1, fig. 2 (India, Burma).

Distribution. India, Burma, Thailand, Laos, Vietnam.
Material examined. THAILAND: Chiang Mai Prov., Fang, 500 m, 1 ex, 13. VI.1965, P. D. Ashlock (BISHOP). Kanchanaburi Prov., Kanchanaburi, 400 m, 1 ex,

4.V.1966. Uthai Thani Prov., Uthai Thani, 1 ex, 13.IV.1963 (BANGKHEN). LAOS: Vientiane Prov., Umgeb. Vientiane, 1 ex, III–VI.1963 (MUNCHEN). VIETNAM: Fyan, 900–1000 m, 1 ex, 11.VII.–9.VIII.1961, N. R. Spencer (BISHOP).

Lema (Petauristes) mouhoti Baly

Lema mouhoti Baly, 1879, Cistula Entomol. **2:** 311 (Siam; BMNH).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 60, 74 (Hainan, Fukien).

Distribution. Thailand, Hainan, S China.
No additional specimen.

Lema (Petauristes) palpalis Lacordaire FIG. 17e

Lema palpalis Lac., 1845, Monogr. Phytoph. **1:** 315 (Java; BMNH).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 9 (Java, Siam).—Jacoby, 1895, Ann. Soc. Entomol. Belg. **39:** 253 (India, Rangoon, Canara); 1908, Fauna India, Coleopt. **2:** 29 (India, Andaman Is, Sumatra, Java).—Kimoto, 1967, Esakia **6:** 66 (Sikkim).—Kimoto & Takizawa, 1973, Kontyû **41**(2): 170 (Nepal).

Crioceris pallidipes Pic, 1916, Mél. Exot. Entomol. **21:** 18 (Cochinchine; PARIS). **New synonymy.**

Distribution. India, Andaman Is, Nepal, Thailand, Laos, Vietnam, Java, Sumatra.
Material examined. THAILAND: Chiang Mai Prov., Doi Suthep, 1000 m, 1 ex, 1–5.IV.1958, T. C. Maa (BISHOP). LAOS: Luang Prabang Prov., Muong Sing, NW of Luang Prabang, 650 m, 1 ex, 6–10.VI.1960, L. Quate (BISHOP). VIETNAM: 7 km SE of Dilinh (Djiring), 990 m, 1 ex, 2.V.1960, R. Leech; 15–35 km NW of Phan Rang, 1 ex, 8–16.XI.1960, C. M. Yoshimoto (BISHOP).

Lema (Petauristes) pectoralis unicolor Clark

Lema unicolor Clark, 1866, Cat. Phytoph., Append., **23** (China; BMNH).
Lema major Pic, 1924, Mél. Exot. Entomol. **41:** 14 (Tonkin; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 74 (=*pectoralis unicolor*).
Lema vandae Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 321, pl. 17, fig. 3 (Hong Kong, Hainan; CAS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 74 (=*pectoralis unicolor*).
Lema (*Bradylema*) *unicolor*: Chûjô, 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 95, 97 (Formosa).
Lilioceris nigrotibialis Medvedev, 1958, Entomol. Arb. Mus. Frey **9**(1): 110 (China; FREY).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 74 (=*pectoralis unicolor*).
Lema (*Petauristes*) *pectoralis unicolor*: Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 61, 74 (China, Hainan, Taiwan, Tonkin).—Kimoto & Takizawa, 1973, Kontyû **41**(2): 170 (Nepal).

Distribution. Nepal, Thailand, Vietnam, Hainan, S China, Taiwan.

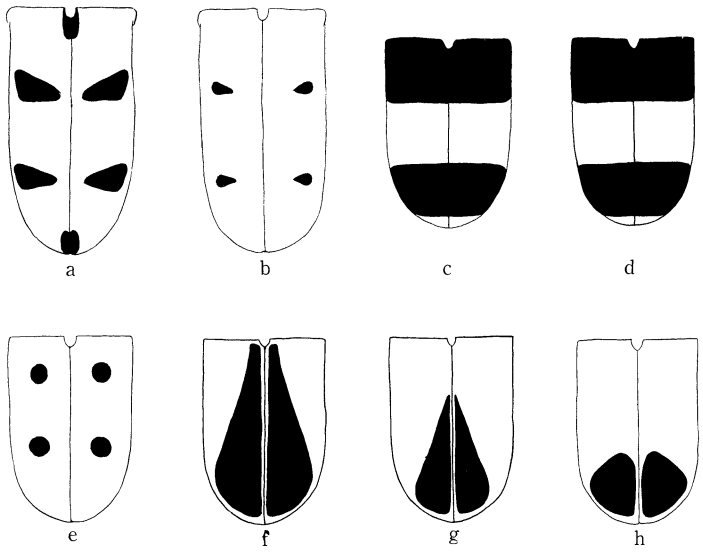

FIG. 18. a, *Lema (Petauristes) femorata.* b, *L. (P.) quadripunctata.* c, *L. (L.) nigrobifasciata.* d, *L. (L.) delauneyi. e, L. (L.) nigrosignata.* f–h, *L. (L.) coromandeliana*; f, *cyaneosuturalis* type; g–h, *brevesuturalis* type.

Host. Vanda lamellata, Arundina chinensis (S China; after Gressitt & Kimoto, 1961).

Material examined. THAILAND: Prachuap Khiri Khan Prov., Prachuap Khiri Khan, 1 ex, V.1956; Thon Buri Prov., Thon Buri, 1 ex, 15.IX.1955; Bangkok, 2 ex, 12.VIII.1953, 1 ex, 5.I.1958, 1 ex, 20.II.1958 (BANGKHEN). LAOS: Sedone Prov., Umgeb. Pakse, 1 ex, 1963 (MUNCHEN). VIETNAM: 40 km SW of Pleiku, 300 m, 1 ex, 11.V.1960, L. W. Quate (BISHOP).

Lema (Petauristes) quadripunctata (Olivier) FIG. 18b

Crioceris quadripunctata Oliv., 1808, Entomologie **6:** 731, pl. 1, fig. 5 (Java).

Lema quadrisignata Boisduval, 1835, Voyage Astrolabe, Coleopt. **2:** 534 ("Nouvelle-Hollande").

Lema quadripunctata: Lacordaire, 1845, Monogr. Phytoph. **1:** 318 (Java).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 10 (Java, New Guinea, Ceylon).—Jacoby, 1908, Fauna India, Coleopt. **2:** 55 (Ceylon, Burma, Andaman Is, Sumatra, Java).

Lema subinnotata Pic, 1929, Entomol. Nachrichtbl. **3:** 15 (Far East; PARIS). **New synonymy.**

Bradylema quadripunctata philippinica Heinze, 1941, Entomol. Bl. **37:** 208 (Philippines).

Bradylema quadripunctata ceylonica Heinze, 1941, Entomol. Bl. **37:** 208 (Ceylon).

Distribution. Sri Lanka (Ceylon), Burma, Andaman Is, Thailand, Laos, Vietnam, Philippines, Java, New Guinea(?).

Material examined. THAILAND: Kanchanaburi Prov., Kanchanaburi, 400 m, 1 ex,

V.1962 (BANGKHEN). LAOS: Sithandone Prov., Ile de Khong, 1 ex, 7.V.1965, 1 ex, 20.VII.1965, 4 ex, 6.II.1965, native collr; Sayaboury Prov., Sayaboury, 1 ex, 6.XII.1965, 2 ex, 30.V.1965, 1 ex, 20.V.1966, native collr; Xieng Kouang Prov., Ban Sam Thong, 1 ex, 5.VI.1965, native collr (BISHOP); Vientiane Prov., Umgeb. Vientiane, 2 ex, III–IV.1963; Sedone Prov., Umgeb. Pakse, 1 ex, 1963; [prov. unknown,] Umgeb. Vanky, 1 ex, 1963 (MUNCHEN). VIETNAM: Tonkin, Kep, 1 ex, 26.VI.1917, Jeanvoine (FREY).

Lema (Petauristes) viridicolor Pic

Lema viridicolor Pic, 1947, Diversités Entomol. **1:** 14 (Tonkin: Chapa; PARIS).

Distribution. Vietnam.
No additional material.

Subgenus **Lema** Fabricius

Lema (Lema) atromarginata Pic FIG. 19d

Lema atromarginata Pic, 1932, Bull. Soc. Zool. Fr. **57:** 138 (Tonkin; PARIS).

Distribution. Vietnam.
No additional material.

Lema (Lema) balyana Jacoby

Lema balyana Jac., 1908, Fauna India, Coleopt. **2:** 20 (India; BMNH).

Distribution. India, Thailand.
Material examined. THAILAND: Chiang Mai Prov., Mae Klang Waterfall, nr Chom Thong, 1 ex, 11.VI.1965, Y. Miyatake (KU). Trang Prov., Chiang Mai, 1 ex, 2.XI.1963 (BANGKHEN). Khao Chang, Khaophapha, 1 ex, 11.I.1964, G. A. Samuelson (BISHOP).

Lema (Lema) barbieri Pic

Lema barbieri Pic, 1949, Échange **65:** 12 (Saigon; PARIS).

Distribution. Thailand, Vietnam.
Material examined. THAILAND: Chiang Mai Prov., Ma Klang, 1 ex, 340 m, 11.VI.1965, P. D. Ashlock (BISHOP); Chiang Mai, 1 ex, 18.IV.1973, Y. Yoshiyasu (KIMOTO).

This species shows a resemblance in color variations seen in *L. coromandeliana,* but is separable from it in having the preapical antennal segments more slender.

Lema (Lema) basithorax Pic

Lema basithorax Pic, 1924, Mél. Exot. Entomol. **41:** 11 (Saigon; ? PARIS).

Distribution. Vietnam.
No additional material.

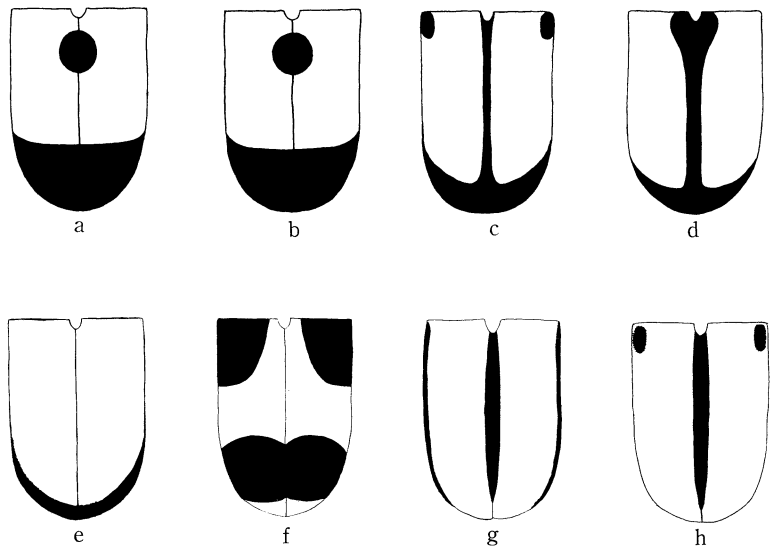

FIG. 19. a, *Lema* (*Lema*) *diversesignata*. b, *L.* (*L.*) *nigrobimaculata*. c, *L.* (*L.*) *viridiapicalis*. d, *L.* (*L.*) *atromarginata*. e, *L.* (*L.*) *morimotoi*. f, *L.* (*L.*) *quadriplagiata*. g–h, *L.* (*L.*) *enigmatica*. (g, holotype; h, paratype).

Lema (Lema) birmanica Jacoby

Lema birmanica Jac., 1892, Ann. Mus. Civ. Genova **32:** 872 (Burma; GENOVA); 1908, Fauna India, Coleopt. **2:** 17 (Burma).—Chûjô, 1964, Nature and Life in SE Asia **3:** 252 (Thailand).

Distribution. Burma, Thailand, Vietnam.

Material examined. THAILAND: Chiang Mai Prov., Doi Suthep, 900 m, 1 ex, 14.XI.1957, J. L. Gressitt; Pangmakampom (Pankampawng), 450 m, nr Fang, 1 ex, 15–16.XI.1957, Gressitt (BISHOP). VIETNAM: Dilinh (Djiring), 1200 m, 3 ex, 22–28.IV.1965, L. W. Quate; Fyan, 900–1000 m, 4 ex, 11.VII.–9.VIII.1961, N. R. Spencer (BISHOP).

Lema (Lema) breveapicalis Pic

Lema breveapicalis Pic, 1924, Mél. Exot. Entomol. **41:** 10 (Saigon; PARIS).

Distribution. Vietnam.

No additional material. The characteristics of the occiput are almost the same as in *L. rugifrons* Baly.

Lema (Lema) cambodiae Kimoto & Gressitt, **new species**

Bright red to steel blue and black. Head red with most frontoclypeus and mouth parts blackish; antenna black with part of segment 1 reddish to pitchy; prothorax red; scutellum red-pitchy; elytron steel blue with a slightly purplish tinge; ventral surfaces largely blackish, partly reddish on meso- and metapleura

and base and apex of abdomen; legs black with trochanters reddish. Head with a few minute suberect pale hairs; antenna with rather close pale pubescence; ventral surfaces with rather thin close silvery pubescence except on middle and side of metasternum, which are largely glabrous; legs with rather few hairs on femora but more on tibiae and tarsi.

Head nearly as broad as prothorax, slightly flattish in front, finely punctured, a narrow groove medially on occiput; gena somewhat rugose-punctate, 3/5 as deep as eye. *Antenna* ½ as long as body; segment 1 short and stout; 2 nearly as long as 1, more slender; 3 longer than 1; 4 nearly as long as 3; 5 much longer, subequal to 6 and 7; following slightly shorter. *Prothorax* a little broader than long, sinuate anteriorly, somewhat rounded anterolaterally, moderately constricted behind middle; disc rather swollen, gradually declivitous to anterior margin, with a moderate depression parallel to base and with a few moderate punctures along central portion. *Scutellum* truncate posteriorly. *Elytron* not quite 4× as long as broad, subparallel, very slightly constricted anterior to middle, broadly rounded ectoapically; disc with 10 regular rows of fairly deep punctures, mostly about as long as interspaces longitudinally and somewhat smaller transversely, with an extra scutellar row. *Ventral surfaces* minutely punctured, with glabrous areas impunctate. *Legs* fairly slender but with stout femora; hind tarsal segment 1 as long as 2 + 3 and nearly as long as last.

Length (holotype) 6.6 mm; breadth 2.7.

Paratype. Length 6.8 mm; breadth 2.7.

Holotype (BISHOP 11,320), CAMBODIA: Kiri Rom, 700 m, 31.III.–7.IV.1961, N. R. Spencer; paratype, same data (KIMOTO).

Differs from *L. tonkinea* Pic in being slightly larger, with head more extensively pale, prothorax less angulate anterolaterally, elytron longer and more grooved posteriorly.

Lema (Lema) castaneithorax Pic

Lema castaneithorax Pic, 1924, Mél. Exot. Entomol. **41:** 10 (Tonkin; ? PARIS).

Distribution. Vietnam.

Lema (Lema) coromandeliana (Fabricius) FIG. 18f–h

Leptura coromandeliana Fabr., 1798, Entomol. Syst. Suppl.: 154 (Tranquebar; KOBENHAVN).

Crioceris praeusta Fabricius, 1792, Entomol. Syst. **1,** 2: 8 (no locality cited).—Monrós, 1959, Opera Lilloana **3:** 183 (=*coromandeliana*).

Lema coromandeliana Fabr., 1801, Syst. Eleuth. **1:** 475 (Tranquebar).—Lacordaire, 1845, Monogr. Phytoph. **1:** 377 (India).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 24 (Java, Makassar, Borneo, Sumatra, Siam, India, China).—Jacoby, 1883, Notes Leyden Mus. **5:** 199 (Saleyer I; variation).—Weise, 1892, Dtsch. Entomol. Z. **1892:** 387 (Nias); 1903, Dtsch. Entomol. Z. **1903:** 19, 24 (Ceylon).—Jacoby, 1908, Fauna India, Coleopt. **2:** 25 (India, Ceylon, Sumatra, Java).—Monrós, 1959, Opera Lilloana **3:** 183 (SE Asia).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 66 (China, Tonkin).—Kimoto, 1967, Kontyû **35:** 372 (Taiwan); 1967, Esakia **6:** 65 (Sikkim); 1972, Entomol. Rev. Jpn **24**(1–2): 43 (India).

Lema praeusta: Fabricius, 1801, Syst. Eleuth. **1:** 472 (no locality cited).—Lacordaire, 1845, Monogr. Phytoph. **1:** 340 (Coromandel).—Jacoby, 1908, Fauna India, Coleopt. **2:** 58 (India).

Lema melanura Fabricius, 1801, Syst. Eleuth. **1:** 474 (Tranquebar).—Lacordaire, 1845, Monogr. Phytoph. **1:** 340 (=*praeusta*).—Monrós, 1958, Opera Lilloana **3:** 183 (=*coromandeliana*).

Lema cyanipennis Olivier, 1808, Entomol. **6:** 740, pl. 2, fig. 21 (Sumatra).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 24 (=*coromandeliana*).

Lema melanocera Lacordaire, 1845, Monogr. Phytoph. **1:** 374 (Java).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 21 (=*coromandeliana*).

Crioceris dichroa Blanchard, 1853, Voyage Pole Sud. **4:** 310, pl. 13, fig. 2.—Heinze, 1927, Entomol. Mitt. **16:** 141 (=*Lema coromandeliana*).

Lema brettinghami Baly, 1861, J. Entomol. **1:** 278 (India; BMNH); 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 24 (synonymized as *coromandeliana*).—Jacoby, 1908, Fauna India, Coleop. **2:** 45 (India) (resurrected from synonymy).—Monrós, 1959, Opera Lilloana **3:** 183 (=*coromandeliana*).

Lema dichroa: Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 24 (=*coromandeliana*).

Lema allardi Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 486 (Pnomh-Penh).—Clavareau, 1913, Coleopt. Cat. **51:** 60 (as var. of *coromandeliana*).

Lema bisulcata Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 486 (Hue; PARIS). **New synonymy.**

Lema coromandeliana var. *gagetica* Weise, 1903, Dtsch Entomol. Z. **1903:** 20 (Ceylon).—Jacoby, 1908, Fauna India, Coleopt. **2:** 25 (=*malanocera* Lac. ?)

Lema binghami Jacoby, 1908, Fauna India, Coleopt. **2:** 61 (India).—Monrós, 1959, Opera Lilloana **3:** 183 (=*coromandeliana*).

Lema coromandeliana varr. *philippina* & *rufipes* Weise, 1922, Philipp. J. Sci. **21**(5): 424 (Philippines).

Lema cyaneosuturalis Pic, 1923, Mél. Exot. Entomol. **38:** 10 (Tonkin; ? PARIS). **New synonymy.**

Lema binhana Pic, 1924, Mél. Exot. Entomol. **41:** 11 (Tonkin; PARIS). **New synonymy.**

Lema takara Chûjô, 1933, Sylvia **4:** 23 (Formosa; TARI); 1951, Tech. Bull. Kagawa Agric. Coll. **2:** 108 (Formosa).—Kimoto, 1967, Kontyû **35:** 372 (=*coromandeliana*).

Lema coromandeliana var. *obsuriventris* Pic, 1935, Échange **51:** 16 (Tonkin).

Lema commelinae Gressitt, 1942, Lingnan Sci. J. **20** (2–4): 310 (S China; CAS). **New synonymy.**

Lema trisulcata Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 321, pl. 16, fig. 2 (Hainan; CAS). **New synonymy.**

Lema mediofasciata Heinze, 1942, Arb. Morph. Taxon. Entomol. Berlin **9:** 56 (Laos; ? DRESDEN). **New synonymy.**

Lema brevesuturalis Pic, 1943, Opusc. Martialia **9:** 13 (Tonkin; PARIS). **New synonymy.**

Lema spinotibialis Pic, 1949, Échange **65:** 12 (Saigon; PARIS). **New synonymy.**

Distribution. India, Sri Lanka (Ceylon), Thailand, Laos, Cambodia, Vietnam, S China, Taiwan, Philippines, Sumatra, Borneo, Java, Makassar.

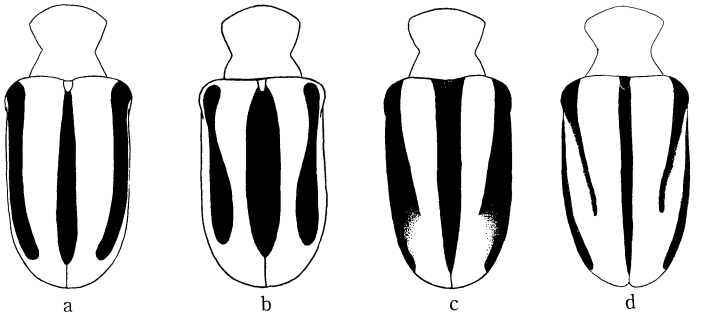

FIG. 20. a, *Lema* (*Lema*) *constrictofasciata* (after Indian specimen). b, *L.* (*L.*) *externevittata*. c–d, *L.* (*L.*) *trifasciata*.

This species is very variable, especially in coloration of legs and ventral surfaces and elytral markings, but it is separable from all other known species of this genus in having pronotum with a subbasal and an antemedian transverse furrow, middle tibiae with a large denticulation in middle and slight obtuse denticulation in most of female, antenna more robust, elytron strongly and closely impressed with longitudinal striae, especially on apical portion, and so on. Among the names listed as synonyms of the present species, those of *L. cyaneosuturalis* Pic, *trisulcata* Gressitt, *commelinae* Gressitt, *mediofasciata* Heinze and *brevesuturalis* Pic differ from the type form in having elytron reddish brown with markings bluish black.

Material examined. THAILAND: Songkhla Prov., Songkhla, 2 ex, 22.VI.1965, K. Morimoto; Chiang Mai Prov.: Chiang Mai, Botanical Garden, 1 ex, 12.VI.1965, Y. Miyatake; 1 ex, 13.VIII.1973, K. Yano; Chiang Mai, 2 ex, 12.VI.1965, Morimoto; 2 ex, 17.VIII.1973, sweeping of paddy field, Yano; Doi Suthep, 1060 m, 2 ex, 12.VI.1965, Morimoto; San Pa Tong, 2 ex, 6.VII.1970, sweeping of paddy field, Yano; Fang, 1 ex, 20.VIII.1973, 1 ex, 22.VIII.1973, Yano; Sarapi, nr Chiang Mai, 1 ex, 18.VII.1970, Yano; Chiang Dao, Ban Tap Dua, 1 ex, 15.VIII.1973, Yano (KU); Chiang Dao, NW, 450 m, 1 ex, 5–11.IV.1958, T. C. Maa (BISHOP); Chiang Mai, 1 ex, 4.XI.1963 (BANGKHEN); Chiang Rai Prov., Mae Chan, 1 ex, 13.VII.1970, sweeping of paddy field, Yano (KU); Trang Prov.: Khao Chong nr Trang, 5 ex, 24–27.VI.1965, Morimoto (KU); Khaophappha, Khaochang, 200–400 m, 2 ex, 30–31.XII.1973, 1 ex, 1.I.1964, 1 ex, 10.I.1964, G. A. Samuelson; Nakhon Ratchasima Prov., Nakhon Ratchasima, 1 ex, 19.V.1961; Nakhon Si Thamarat Prov., Nakhon Si Thamarat, 1 ex, 7.IX.1958 (BANGKHEN). Saraburi Prov.: Prabattakpa, 1 ex, 9.XI.1966, K. Yasumatsu & Yano; Khao Yai Natl. Park,[5] 4 ex, 6.VI.1965, Morimoto (KU). LAOS: Vientiane Prov.: Umgeb. Vientiane, 2 ex, III–VI.1963 (MUNCHEN); Vientiane, 1 ex, 22.VII.1965, 1 ex, 4.VIII.1965, native collr (BISHOP); Wapikhamthong Prov., Khong Sedone, 1 ex, 17.VII.1965, native collr; Sedone Prov., Pakse, 1 ex, 15.V.1965, 1 ex, 12.V.1965, P. D. Ashlock; Borikhane Prov., Pakkading, 1 ex, 31.VIII.1965, native collr (BISHOP). [prov. unknown,] Umgeb. Vanky, 1 ex, 1963 (MUNCHEN). VIETNAM:

Dalat, 1400–1500 m, 2 ex, 9.VI–7.VII.1961, N. R. Spencer; Dai Lanh, N of Nhatrang, 6 ex, 30.XI–5.XI.1960, C. M. Yoshimoto; 15–55 km NW of Phan Rang, 5 ex, 8–16.XI.1960, Yoshimoto; Fyan, 900–1000 m, 1 ex, 11.VII–9.VIII.1961, Spencer; Ninh Hoa, N of Nhatrang, 2 ex, 28.XI.1960, Yoshimoto; 20 km from DiLinh (Djiring), 1 ex, 22–28.IV.1960, L. W. Quate; Kontoum, N of Pleiku, 550 m, 1 ex, 13.V.1960, S. Quate; Ban Me Thuot, 500 m, 1 ex, 16–18.V.1960, L. Quate (BISHOP).

Lema (Lema) cyanea Fabricius FIG. 12b

Lema cyanea Fabr., 1798, Entomol. Syst. Suppl.: 92; 1801, Syst. Eleuth. **1:** 475 (India Oriental).—Weise, 1903, Dtsch Entomol. Z. 1903: 17, 22 (Ceylon).—Jacoby, 1908, Fauna India, Coleopt. **2:** 64 (India, Burma, Siam, Sumatra).—Kimoto, 1967, Esakia **6:** 65 (Sikkim, Darjeeling); 1970, Khumbu Himal **3**(3): 412 (Nepal).

Lema wallacei Jacoby, 1884, Notes Leyden Mus. **6:** 10 (Burma); 1889, Ann. Mus. Civ. Genova **27:** 151 (Burma).—Jacoby, 1908, Fauna India, Coleopt. **2:** 64 (=*cyanea*).

Lema lacosa Pic, 1924, Mél. Exot. Entomol. **41:** 12 (Tonkin; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 61, 69 (S China, Tonkin). **New synonymy.**

Lema bicolorithorax Pic, 1924, Mél. Exot. Entomol. **41:** 13 (Yunnan; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 69 (=*lacosa*).

Lema persicariae Chûjô, 1933, Sylvia **4**(1): 38 (Formosa; TARI); 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 130 (Formosa).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 69 (=*lacosa*).

Lema angustepunctata Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 307, pl. 13, fig. 3 (S China; USNM).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 69 (=*lacosa*).

Distribution. India, Ceylon, Nepal, Burma, Thailand, Laos, Vietnam, S China, Taiwan, Sumatra.

Material examined. THAILAND: Chiang Mai Prov., Doi Suthep, 1000 m, 1 ex, 12.VI.1965, K. Morimoto; San Pa Tong, 1 ex, 6.VII.1970, sweeping of paddy field, K. Yano (KU). LAOS: Vientiane Prov., Vientiane, 1 ex, 4.VIII.1965, native collr (BISHOP). VIETNAM: Dalat, 1500 m, 1 ex, 26–27.IX.1960, C. M. Yoshimoto; 6 km SW of Dalat, 1500 m, 1 ex, 11.IX.1960, J. L. Gressitt; 4 ex, 9.VI.–7.VII.1961, N. R. Spencer; Dai Lanh, N of Nha Trang, 12 ex, 30.XI.–5.XII.1960, Yoshimoto; Kontoum, N of Pleiku, 550 m 1, ex, 13.V.1960, L. W. Quate; Ban Me Thuot, 500 m, 1 ex, 16–18.V.1960, S. Quate; Fyan, 1200 m, 1 ex, 11.VII.–9.VIII.1961, Spencer; M'Drak, E of Ban Me Thuot, 4–600 m, 1 ex, 8, 19.XII.1960, Yoshimoto (BISHOP).

Lema (Lema) cyaneopectoralis Pic

Lema cyaneopectoralis Pic, 1924, Mél. Exot. Entomol. **41:** 10 (Tonkin; PARIS).

Distribution. Vietnam.

No new material.

This species somewhat resembles *L. barbieri* Pic, but differs from it in having the subbasal portion of elytron distinctly excavated as in *L. rufotestacea* Clark.

Lema (Lema) demangei Pic

Lema demangei Pic, 1924, Mél. Exot. Entomol. **41:** 14 (Hanoi; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 63, 67 (Tonkin, Hainan; error: *demongei*).
Lema corpulentina Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 311, pl. 17, fig. 1 (Hainan I; CAS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 67 (=*demangei*).

Distribution. Vietnam, Hainan I.
No new material.

Lema (Lema) delauneyi Baly FIG. 18d

Lema delauneyi Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 488 (Hue; PARIS).
Lema annamensis Heinze, 1942, Arb. Morph. Taxon. Entomol. Berlin **9:** 56 (Annam). **New synonymy.**

Distribution. Vietnam, Thailand.
Material examined. THAILAND: Chiang Mai Prov., Chiang Mai, 1 ex, 9.VI.1965, K. Morimoto; Fang, 3 ex, 22.VIII.1973, K. Yano; Ban Ta Dua, Chiang Dao, 1 ex, 15.VIII.1973, sweeping of paddy field, Yano (KU). VIETNAM: Dalat, 1400–1500 m, 2 ex, 9.VI.–7.VII.1961, N. R. Spencer; Kontum, N of Pleiku, 550 m, 3 ex, 13.V.1960, L. & S. Quate; 10 km E of Ban Me Thuot, 570 m, 1 ex, 11.V.1960, R. Leech (BISHOP).

Lema (Lema) diversesignata Pic FIG. 19a

Lema diversesignata Pic, 1937, Mél. Exot. Entomol. **69:** 17 (Cochinchina; PARIS).

Distribution. Vietnam, Cambodia.
Material examined. CAMBODIA: Kiri Rom, 700 m, 1 ex, 31.III.–7.IV.1961, N. R. Spencer (BISHOP).

Lema (Lema) diversitarsis Pic

Lema diversitarsis Pic, 1927, Mél. Exot. Entomol. **50:** 2 (Tonkin; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 62, 68 (S China).

Distribution. S China, Vietnam.
No additional material.

Lema (Lema) enigmatica Kimoto & Gressitt, **new species** FIG. 19g, h

Largely testaceous, in part marked with black or pitchy. Head testaceous, blackish on apical portion of frontoclypeus and on parts of mouthparts; antenna largely pitchy, but with parts of undersides or apices of most segments pale and major part of segments 1–2 pale; prothorax ochraceous; elytron pale ochraceous, with most of sutural border narrowly pitchy and much of external margin pitchy, except at base and apex; thoracic sterna black; abdomen ochraceous with a few vague slightly pitchy areas; legs ochraceous with tarsal claws pitchy. Body largely glabrous; a few minute pale golden hairs on anterior portion of head, closer and duller hairs on antenna beyond segment 3, and fine sparse pale golden hairs on ventral surfaces, with fewer on legs.

Head as broad as prothorax, finely punctured; occiput feebly swollen, with a fine median groove posteriorly; gena rather closely punctured, 4/5 as deep as eye. *Antenna* 3/4 as long as body; segment 1 oval; 2 much shorter, slightly longer than broad; 3 as long as 1, more slender; 4 as long as 3; 5 longer; 5–7 subequal; 8–11 shorter, subequal. *Prothorax* nearly as long as broad, obtusely rounded anterolaterally, moderately constricted just behind middle, about as broad at base as behind apex; disc fairly smooth and convex, with some fairly widely spaced punctures on median portion and on anterolateral portion. *Scutellum* narrowed and slightly emarginate apically. *Elytron* 3.3× as long as broad, subparallel-sided, gradually rounded externally to apex; disc with 10 regular rows of deep punctures, mostly larger than interspaces on central portion, with an extra scutellar row. *Ventral surfaces* minutely punctured. *Legs* fairly stout; hind tarsal segment 1 nearly as long as 2 + 3, shorter than last.

Length 4.3 mm; breadth 1.85.

A second specimen, probably this species, has elytron with external margin entirely pale but with a small pitchy humeral spot and has the abdomen largely black. Length 3.8 mm; breadth 1.6.

Holotype (BISHOP 11,321), S LAOS: Sedone Prov., Pakse, 15.V.1965, P. D. Ashlock. One specimen, probably this species, S VIETNAM: Dalat, 1500 m, 29.IV.–4.V.1960, S. Quate (KIMOTO).

Differs from *L. trifasciata* Jacoby in being smaller, with prothorax more slender, thoracic sterna black and elytron narrowly pitchy on part of external margin, instead of having a distinct lateral bluish stripe.

Lema (Lema) externevittata Pic FIG. 20 b

Lema externevittata Pic, 1943, Opusc. Martialia **9:** 13 (India; PARIS).—Kimoto, 1972, Entomol. Rev. Jpn **24**(1/2): 44, fig. 1b (Thailand).

Distribution. India, Thailand.

Material examined. THAILAND: Chiang Mai Prov., Doi Puli, 1300 m, 1 ex, 17.VI.1965, K. Morimoto; 1 ex, 19.VI.1965, Y. Miyatake (KU, BISHOP).

Lema (Lema) feae Jacoby

Lema feae Jac., 1892, Ann. Mus. Civ. Genova **37:** 873 (Burma; GENOVA); 1908, Fauna India, Coleopt. **2:** 40 (Burma).

Distribution. Burma, Thailand, Vietnam.

Material examined. THAILAND: Chiang Mai Prov., Fang, 2 ex, 13.VI.1965, Y. Miyatake (KU); Pangmakampom (Pankampawng), nr Fang, 450 m, 1 ex, 15–16.XI.1957, J. L. Gressitt; Trang Prov., Khaophappa, Khaochang, 200–400 m, 1 ex, 4.I.1964, G. A. Samuelson (BISHOP). VIETNAM: Ban-me-thuot, 500 m, 1 ex, 16–18.V.1960, R. E. Leech; 7 km SE of Dilinh (Djiring), 990 m, 1 ex, 2.V.1960, Leech (BISHOP).

The following 3 specimens are hardly separable from the present species except for the entirely brownish ventral surfaces and they are treated here as *L. feae* with some question. VIETNAM: Dai Lanh, N of Nha Trang, 2 ex, 30.XI–5.XII.1960, C. M. Yoshimoto (BISHOP). CAMBODIA: Ph. Chisau, 40 km S of Phnom Penh, 20 m, 1 ex, 29.IV.1961, N. R. Spencer.

Lema (Lema) fleutiauxi Baly

Lema fleutiauxi Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 487 (Tonkin; PARIS).

Distribution. Vietnam.
No additional material.

Lema (Lema) impressipennis Pic

Lema biimpressipennis Pic, 1932 (nec 1931), Bull. Soc. Zool. Fr. **57:** 138 (Tonkin; PARIS).
Lema impressipennis Pic, 1944, Opusc. Martialia **13:** 12 (n. n. for *Lema biimpressipennis* Pic, 1932, nec 1931, from Madagascar).

Distribution. Laos, Vietnam.
Material examined. LAOS: Vientiane Prov., Ban Van Heua, 1 ex, 15.VIII.1965, native collr (BISHOP).

Lema (Lema) lacertosa Lacordaire

Lema lacertosa Lac., 1845, Monogr. Phytoph. **1:** 339 (Bengal; PARIS).—Baly, 1865, Trans. Entomol. Soc. London, ser 3, **4**(1): 11 (Singapore, Bengal, China).—Jacoby, 1908, Fauna India, Coleopt. **2:** 35, pl. 1, fig. 2 (India, Malay Peninsula, China).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 63, 69 (Yunnan).
Lema diversipes Pic, 1921, Mél. Exot. Entomol. **33:** 3 (Yunnan; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 69 (=*lacertosa*).

Distribution. India, Laos, Vietnam, S China, Malaysia, Singapore.
Material examined. LAOS: Luang Prabang Prov., Muong Sing, NW of Luang Prabang, 450 m, 1 ex, 6–10.VI.1960, L. & S. Quate (BISHOP). [prov. unknown,] Umgeb. Vanky, 1 ex, 1963 (MUNCHEN). VIETNAM: Dai Lanh, N of Nha Trang, 1 ex, 30.XI.–5.XII.1960, C. M. Yoshimoto (BISHOP).

Lema (Lema) miyatakei Kimoto & Gressitt, **new species**

Bright orange-red and steel blue. Head orange except for labrum and most of frontoclypeus black; antenna mostly pitchy black with segment 1 orange, 2–4 and 11 partly pitchy brown; prothorax entirely orange-red; scutellum reddish; elytron steel-blue with slight greenish tinge; ventral surfaces orange; legs orange with much of tarsi and distal ⅔ or so of each tibia pitchy black. Dorsum largely glabrous; ventral surfaces of hind thorax and abdomen with fine silvery buff pubescence; legs with slightly sparser pubescence but with a few longer oblique hairs; antenna moderately clothed with pale pubescence beyond segment 2; frontoclypeus with sparse pubescence.

Head not quite as broad as prothorax, shiny and very feebly punctured on neck, obliquely grooved on each side of interocular area and with an incomplete median groove; raised areas finely punctured; frontoclypeus minutely punctured; gena ¾ as deep as eye. *Antenna* $^{5}/_{6}$ as long as body; segment 1 short, stout; 2 similar in form, much smaller; 3 slightly longer than 1; 4 barely longer than 3; 5 slightly longer than 2 + 3; 5–10 similar, decreasing very slightly in length; 11 nearly as long as 5. *Prothorax* barely broader than long, barely collared anteriorly; anterior angle obtuse, about as wide here as at extreme base, gradually narrowed and then strongly constricted just behind middle, then slightly broadened to base; disc shiny, largely punctate, with 4 irregular rows of minute punctures along median portion of anterior ⅔, before subtransverse depression. *Scutellum* small, rounded-truncate behind. *Elytron* 3.4× as long as broad, subparallel-sided, broadly rounded apically; disc with 10 regular rows of strong punctures at middle, punc-

tures a little larger and more widely spaced anteriorly and finer and a little closely spaced posteriorly, those at middle about as large as interspaces. *Ventral surfaces* smooth, minutely punctured; legs with femora moderately swollen and tibiae fairly straight; hind tarsal segment 1 barely longer than 2 + 3 and slightly longer than last.

Length 6.0–7.0 mm; breadth 2.5.

Holotype (KU), N THAILAND: Chiang Mai Prov., Doi Puli, 1300 m, 8.VI.1965, Y. Miyatake. Paratypes: LAOS: Xieng Kouang Prov., Ban Sam Thoang, 1 ex, 5.VI.1965, native collr (BISHOP); THAILAND: Chiang Mai Prov., Doi Suthep, 1000 m, 1 ex, 12.VI.1967, K. Morimoto (KIMOTO).

Differs from *L. nigrofrontalis* Clark in having irregular minute punctures instead of 2 rows of punctures along anterior median portion of pronotum.

Lema (Lema) morimotoi Kimoto & Gressitt, **new species** FIG. 19e

Black; pronotum, scutellum, top of neck and most of elytron orange castaneous, remainder of body, including all of ventral surfaces, most of head, external margin and extreme apex of elytron black. Dorsum glabrous except for a few silvery hairs on head; antenna clothed with short buff pubescence; ventral surfaces with fine silvery pubescence, lacking an outer edge of metasternum and middle of side of abdominal sternite 1, largely lacking on lower side of prothorax.

Head slightly broader than prothorax, strongly constricted a short distance behind eye; interocular area with a raised transverse triangular area set off by a deep groove, smooth and finely punctured, slightly depressed postmedially and slightly carinate at anterior apex, area beside eye closely punctured; frontoclypeus minutely punctured; gena ½ as deep as eye. *Antenna* $^{9}/_{10}$ as long as body; segment 1 short, strongly swollen; 2 shorter, less swollen; 3 slightly longer than 1; 4 a little longer than 3; 5 a little longer than 2 + 3; 5–10 decreasing slightly in length; 11 a little longer than 10. *Prothorax* barely broader than long, barely collared anteriorly; anterior angle obtuse, about as wide here as at extreme base, gradually narrowed and then strongly constricted just behind middle, then broadened to base; disc fairly smooth, with some irregular minute punctures anteriorly; constriction well behind middle at median line, arcuate. *Scutellum* truncate and slightly emarginate apically. *Elytron* 3.6× as long as broad, slightly narrowed at end of basal $^{1}/_{4}$, then subparallel and then narrowed and rounded at apex; surface with 10 moderately regular rows of strong punctures at middle, a few extra punctures near scutellum; punctures mostly larger than interspaces, becoming smaller posteriorly; punctures on central portion partly subreticulate, interpunctural stripes becoming distinct and raised before apex. *Ventral surfaces* fairly shiny, minutely punctured. *Legs* with femora moderately swollen; tibiae fairly straight and moderately stout; hind tarsal segment 1 as long as 2 + 3 and nearly as long as last.

Length 5.6 mm; breadth 2.35.

Paratypes. Femora sometimes slightly pitchy above. Length 5.3–5.8 mm; breadth 2.1–2.3.

Holotype (KU), N THAILAND: Chiang Mai Prov., Doi Suthep, 1000 m, 12.VI.1965, K. Morimoto; paratopotypes, same data as holotype, 1 ex, (KIMOTO); 1 ex, same data but 19.VI.1965 (KU), and 1 ex, 1–5.IV.1958, T. C. Maa (BISHOP).

Differs from *L. diversa* Baly in being stouter, with occiput less grooved, pronotum having several irregular rows of minute punctures, and elytron more heavily punctured and not entirely red.

Lema (Lema) nigricollis Jacoby

Lema nigricollis Jac., 1891, Entomologist **24** (Suppl.): 31 (Assam; BMNH); 1908, Fauna India, Coleopt. **2:** 69 (Assam, Burma).—Kimoto, 1967, Esakia **6:** 65 (Sikkim, Darjeeling).

Distribution. India, Burma, Thailand, Laos, Vietnam.

Material examined. THAILAND: Chiang Mai Prov.: Doi Suthep, 1 ex, 28–31.III.1958, T. C. Maa; Fang, 1 ex, 500 m, 12.IV.1958, Maa (BISHOP); Doi Suthep, 1 ex, 18.VI.1965, K. Morimoto (KU); Chiang Dao, 2 ex, 23.IV.1973, Y. Yoshiyasu (KIMOTO). LAOS: Attopeu Prov., Houay Kong, 1 ex, 31.V.1965, native collr (BISHOP); Sayaboury Prov., Umgeb. Paklay, 1 ex, 1963 (MUNCHEN). VIETNAM: Fyan, 900–1000 m, 3 ex, 11.VII.–9.VIII.1961, N. R. Spencer; 6 km S of Dalat, 1400–1500 m, 1 ex, 9.VI.–7.VII.1961, Spencer; Dalat, 1500 m, 1 ex, 26–27.IX.1960, C. M. Yoshimoto; Kontum, N of Pleiku, 550 m, 2 ex, 13.V.1969, S. Quate (BISHOP).

Lema (Lema) nigrobifasciata Heinze FIG. 18c

Lema nigrobifasciata Heinze, 1942, Arb. Morph. Taxon. Entomol. Berlin **9:** 54 (Siam, Laos).

Lema nigrofasciata Pic, 1949, Échange **65:** 12 (Saigon; PARIS). **New synonymy.**

Distribution. Thailand, Laos, Vietnam.

Heinze (1942) treated the specimens which have the ventral surfaces of meso- and metathorax black as a variety of *L. nigrobifasciata.* However, specimens with this type of color pattern should be considered as *L. delauneyi* Baly.

Material examined. THAILAND: [prov. unknown,] Bansaen, 1 ex, 16.XI.1968, M. Sato; Thon Buri Prov., Bangkok, 1 ex, 25–27.I.1968, K. Baba (KIMOTO).

Lema (Lema) nigrobimaculata Pic FIG. 19b

Lema nigrobimaculata Pic, 1924, Mél. Exot. Entomol. **41:** 12 (Siam; PARIS).

Distribution. Thailand, Laos, Cambodia.

Material examined. LAOS: Vientiane Prov., Ban Tha Ngone, 1 ex, 20.VII.1965, native collr (BISHOP). CAMBODIA: Kiri Rom, 700 m, 1 ex, 31.III.–7.IV.1961, N. R. Spencer (BISHOP).

Lema (Lema) nigrosignata Pic FIG. 18e

Lema nigrosignata Pic, 1926, Bull. Soc. Zool. Fr. **51:** 393 (Tonkin; PARIS).

Lema fanheanga Gressitt, 1942, Lingnan Sci. J. **20**(2–4): 314, pl. 12, fig. 4 (Hainan; CAS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 62, 68 (Hainan). **New synonymy.**

Distribution. Vietnam, Hainan I.

Another Taiwan species, *L. esakii* Chûjô, is closely related to present species but differs in having the ventral surfaces mostly brownish instead of entirely black. However, the taxonomic status of *L. esakii* needs clarification.

Lema (Lema) perplexa Baly

Lema perplexa Baly, 1889, Ann. Soc. Entomol. Fr., ser 6, **9:** 487 (Hue; PARIS).

Lema chujoi Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 64 (Kwangtung; CAS). **New synonymy.**

Distribution. Thailand, Vietnam, S China.

Material examined. THAILAND: Chiang Mai Prov., Doi Suthep, 1000 m, 1 ex, 18.VI.1965, K. Morimoto; 1 ex, 12.VI.1965, Y. Miyatake (KU); Doi Suthep, 1 ex, 28–31.III.1958, T. C. Maa (BISHOP); Saraburi Prov.: Khao Yai Natl. Park,[5] 1 ex, 12.II.1964 (BANGKHEN); 1 ex, 6.VI.1965, Morimoto (KU); Loey Prov., 17 km NW of city, 1 ex, 28.V.1967, J. S. Burton (BISHOP). LAOS: Vientiane Prov., Umgeb. Vientiane, 2 ex, III–IV.1963; Sayaboury Prov., Umgeb. Paklay, 1 ex, 1963; [prov. unknown,] Umgeb. Vanky, 1 ex, 1963 (MUNCHEN). VIETNAM: Fyan, 900–1000 m, 2 ex, 11.VII–9.VIII.1961, N. R. Spencer (BISHOP); Tonkin, Hoa-Binh, 2 ex, A. Cooman (FREY).

Lema (Lema) phungi Pic

Lema phungi Pic, 1924, Mél. Exot. Entomol. **41:** 13 (Tonkin; PARIS).

Distribution. Vietnam, Laos, Thailand.

Material examined. THAILAND: Chiang Mai Prov., Fang, 2 ex, 22.VIII.1973, K. Yano; Chiang Dao, Ban Ta Dua, 1 ex, 15.VIII.1973, sweeping of paddy field, Yano; Mae Tang (Taeng ?), 2 ex, 10.XI.1966, sweeping of paddy field, K. Yasumatsu & Yano (KU). LAOS: Vientiane Prov.: Nong Thevada, 3 ex, 6.VIII.1965, native collr; Vientiane, 1 ex, 28.VII.1965, native collr (BISHOP).

Lema (Lema) quadriplagiata Baly FIG. 19f

Lema quadriplagiata Baly, 1865, Ann. Mag. Nat. Hist., ser 3, **16:** 155 (Pachyburi, Siam; BMNH).

Distribution. Thailand, Laos.

Material examined. THAILAND: Chiang Mai Prov., Doi Suthep, 1300 m, 1 ex, 8.VI.1965, P. D. Ashlock (BISHOP). LAOS: Sithandone Prov., Ile de Khong, 1 ex, 7.V.1965, Native collr (BISHOP). Sayaboury Prov., Umgeb. Paklay, 1963 (MUNCHEN).

Lema (Lema) rondoniana Kimoto & Gressitt, **new species**

Bright brick red, somewhat deeper red on pronotum, with constricted portions of side nearly pitchy; labrum and apex of frontoclypeus pitchy to black; antenna pitchy black; ventral surfaces of hind thorax and abdomen black except for reddish brown outer borders of abdominal sternites; legs nearly black. Dorsum nearly glabrous, with a few short silvery buff hairs on front of head and some longer ones near mouthparts; antenna with short adpressed golden buff hairs, lacking on segments 1–2; ventral surfaces with largely silver-gold pubescence; legs with similar, less uniform pubescence, partly sparser and partly longer.

Head not quite as wide as widest point of prothorax, strongly narrowed almost immediately behind eyes, rather flat in front; triangular area of occiput convex, briefly grooved posteriorly, finely punctured; frontoclypeus minutely punctured; gena ⅔ as deep as eye. *Antenna* ¾ as long as body; segment 1 broadly elliptical; 2 shorter, fairly stout; 3 about as long as 1; 4 slightly shorter than 3; 5 slightly longer than 2 + 3; 5–10 decreasing very slightly in length; 11 partly shorter than 10. *Prothorax* as broad anteriorly as at

base, very briefly margined, and sinuate anteriorly, oblique on front of anterior angle, which is rounded-obtuse and with setigeral pore above; side subevenly narrowed to constriction which is just behind middle and then widened to base; disc feebly convex, slightly depressed and feebly grooved between middle and base, a pair of rows of fine punctures medially on anterior $^2/_3$. *Scutellum* rounded truncate apically. *Elytron* just over 3× as long as broad, slightly broadened behind humerus and then very slightly narrowed just anterior to middle, slightly broadened again behind middle and broadly rounded apically; disc with 10 fairly regular rows of strong punctures at middle, the punctures a little smaller than interspaces longitudinally, slightly larger anteriorly, a few extra punctures near scutellum; interpunctural rows slightly raised posteriorly. *Ventral surfaces* minutely punctulate. *Legs* with femora fairly stout; hind tarsal segment 1 about as long as 2 + 3 and nearly as long as last.

Length 5.7 mm; breadth 2.5.

Paratype. Dorsum a little more orange. Length 5.4 mm; breadth 2.4.

Holotype (BISHOP 11,322), LAOS: Vientiane Prov., Ban Van Heua, 1000 m, 20 km E of Phou Khao Khouay, 15–31.V.1965, J. Rondon; 1 paratopotype, same locality as holotype, 1–15.V.1965, Rondon & Gressitt (KIMOTO).

Differs from *L. diversa* Baly in being a little narrower, with head and prosternum more extensively pale, with anterior angle of prothorax more rounded, and elytron more heavily punctured, particularly behind middle.

Named in honor of the late Mr J. Rondon of Vientiane.

Lema (Lema) rufotestacea Clark

Lema rufotestacea Clark, 1866, Cat. Phytoph. Append.: 29 (India; BMNH).—Jacoby, 1908, Fauna India, Coleopt. **2:** 36 (India, Burma).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 63, 72 (China).—Kimoto, 1967, Esakia **6:** 68 (Sikkim).

Lema annulitarsis Pic, 1924, Mél. Exot. Entomol. **41:** 13 (Tonkin; PARIS).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 72 (=*rufotestacea*).

Lema nitobei Chûjô, 1933, Sylvia **4**(1): 28 (Formosa; TARI); 1951, Tech. Bull. Kagawa Agric. Coll. **2**(2): 109, fig. 22 (Formosa).—Gressitt & Kimoto, 1961, Pac. Insects Monogr. **1A:** 72 (=*rufotestacea*).

Distribution. India, Burma, Thailand, S China, Hainan, Taiwan.

Material examined. THAILAND: Chiang Mai Prov.: Fang, 500 m, 1 ex, 13.VI. 1965, P. D. Ashlock (BISHOP); Doi Suthep, 1000 m, 1 ex, 12.VI.1965, K. Morimoto; Trang Prov., Khao Chang, nr Trang, 1 ex, 24.VI.1965, 2 ex, 26.VI.1965, Morimoto (KU); Khao Chang, Khaophappa, 200–400 m, 1 ex, 1.I.1964, G. A. Samuelson; Nakhon Si Thammarat Prov., Banna, Chawng nr Nabon, 70 m, 1 ex, 6.IX.1958, Gressitt (BISHOP); Chanthaburi Prov., Prew, 1 ex, 22.IV.1968 (BANGKHEN).

Lema (Lema) rugifrons Jacoby

Lema rugifrons Jac., 1889, Ann. Mus. Civ. Genova **27:** 151 (Burma; GENOVA); 1908, Fauna India, Coleopt. **2:** 40 (India, Burma).

Lema coomani Pic, 1924, Mél. Exot. Entomol. **41:** 13 (Tonkin; PARIS). **New synonymy.**

Lema paagai Chujo, 1933, Sylvia **4**(1): 20, 25 (Formosa; TARI); 1951, Tech. Kagawa Agric. Coll. **2**(2): 101–02 (Formosa).—Kimoto, 1964, J. Fac. Agric. Kyushu Univ.

13(1): 123, 125 (Ryukyu Is).—Kimoto & Gressitt, 1966, Pac. Insects Monogr. **8**(2): 470, 491 (Ryukyu Is). **New synonymy.**

Distribution. India, Burma, Thailand, Laos, Vietnam, Taiwan, Ryukyu Is.

Host. Oryza sativa Linn.

Material examined. THAILAND: Chiang Mai Prov., Chiang Mai, 300 m, 1 ex, 14.XI.1957, at M. V. light, Gressitt (BISHOP); San Pa Tong, 1 ex, 24.VIII.1973, sweeping of paddy field, Yano; Songguare, nr San Pa Tong, 1 ex, 4.VII.1970, sweeping of paddy field, Yano; Chiang Mai, 1 ex, 3.XI.1966, sweeping of paddy field, Yasumatsu & Yano; Chiang Mai, 1 ex, 18.IV.1973, Y. Yoshiyasu (KIMOTO); Saraburi Prov., Parabattakpa, 1 ex, 9.XI.1966, sweeping of paddy field, K. Yasumatsu & K. Yano (KU). LAOS: Luang Prabang Prov., Luang Prabang, 300 m, 1 ex, 4–5.VI.1960, L. Quate; Sedone Prov., Pakse, 1 ex, 15.V.1965, P. D. Ashlock (BISHOP). VIETNAM: S Vietnam, Danar, 200 m, 1 ex, 13–28.II.1961, N. R. Spencer (BISHOP).

Coloration of the ventral surfaces and legs seems variable. In 1 specimen from Laos (Pakse) and 1 from Thailand (Songguare), the ventral coloration is entirely brownish, and in 1 from Laos (Luang Prabang), the ventral surfaces of meso- and metathorax and basal 4 abdominal sternites are almost entirely blackish.

Lema (Lema) saigonensis Pic

Lema saigonensis Pic, 1923, Mél. Exot. Entomol. **38:** 10 (Saigon; PARIS).

Distribution. Vietnam, Laos, Thailand.

Material examined. THAILAND: Saraburi Prov., Saraburi, Ban Muak Lek Natl. Park, 1 ex, 6.VI.1965, P. D. Ashlock (BISHOP); Phu Kae, 1 ex, 17.V.1963 (BANGKHEN); Chiang Mai Prov.: Doi Suthep, 1278 m, 1 ex, 29.III–4.V.1958, T. C. Maa; Fang, 500 m, 1 ex, 31.VI.1965, Ashlock (BISHOP); Chiang Mai, 1 ex, 2.XI.1963 (BANGKHEN); Doi Suthep, 1 ex, 6.VI.1965, K. Morimoto; Fang, 12 ex, 22.VIII.1973, K. Yano; 2 ex, 22.VIII.1973, S. Nakao; San Pa Tong, 2 ex, 6.VII.1970, sweeping of paddy field, K. Yano; Trang Prov., Khao Chang, Khaophappha, 1 ex, 26.VI.1965, Morimoto (KU); Nakhon Si Thammarat Prov., Banna, Chawang, nr Nabon, 70 m, 1 ex, 6.IX.1958, Gressitt (BISHOP); Chanthaburi Prov., Prew, 1 ex, 23.IV.1963 (BANGKHEN). LAOS: Vientiane Prov., Vientiane, 6 ex, 4.VIII.1965, 2 ex, 2.VIII.1965, native collr; Nong Tevada, 1 ex, 13.VIII.1965, 1 ex, 18.VIII.1965, native collr; Wapikhamthong Prov., Khong Sedone, 1 ex, 5.VII.1965, 1 ex, 17.VII.1965, native collr; Sedone Prov., Paksong, 1 ex, 30.VII.1965, native collr (BISHOP). VIETNAM: Tonkin, Hoa-binh, de Cooman (FREY); Dai Lanh, N of Nha Trang, 4 ex, 30.XI–5.XII.1960, C. M. Yoshimoto (BISHOP).

This species closely resembles *Lema rufotestacea* Clark in general characteristics but is separable from it in having antenna entirely yellowish brown instead of blackish.

Lema (Lema) spenceri Kimoto & Gressitt, **new species**

Head, prothorax antenna and legs largely dull testaceous; frontoclypeus and labrum blackish; scutellum bluish black; elytron steel blue to blackish; hind thorax and abdomen black; mid and hind coxae largely

black to pitchy. Body largely glabrous above, a few minute golden buff hairs on anterior portion of head; antenna with very fine golden pubescence; ventral surfaces with minute sparse golden buff hairs; legs with rather few hairs on femora but with more numerous oblique hairs on tibiae and tarsi.

Head barely broader than prothorax, smooth on occiput, a triangular raised area between eyes, with a very slight depression behind on median line; raised areas near eyes moderately punctured; frontoclypeus minutely punctured; gena $^3/_5$ as deep as eye. *Antenna* $^7/_8$ as long as body; segment 1 fairly stout and shiny; 2 a little shorter and less swollen; 3 barely longer than 1; 4 not quite as long as 2 + 3; 5 slightly longer than 2 + 3; 5–10 decreasing very slightly in length; 11 barely longer than 10. *Prothorax* about as broad as long, very narrowly collared anteriorly; anterior angle oblique anteriorly, rounded and immediately followed by widest part of prothorax, narrowed and strongly constricted behind middle, then widened to base which is nearly as wide as anterior portion; disc smooth and shiny with some irregular small punctures on anterior part of median portion; transverse constriction behind middle rather deep. *Scutellum* truncate behind. *Elytron* 3.3× as long as broad; humerus swollen and strongly rounded; margins subparallel but slightly widened immediately behind humerus and then slightly narrowed anterior to middle, rounded apically; disc strongly swollen on inner basal portion as well as on humerus and rather deeply impressed behind former; surface with 10 regular rows of punctures at middle, the punctures mostly smaller than interspaces, but larger in second $^1/_4$, particularly in postbasal depression; a few extra punctures near suture on base, punctures much finer and a little more widely separated posteriorly, with interpunctural areas slightly raised in apical $^1/_3$. *Ventral surfaces* smooth, minutely punctured. *Legs* with femora rather weakly swollen; tibiae fairly straight; hind tarsal segment 1 barely as long as 2 + 3 and slightly shorter than last.

Length 5.4 mm; breadth 2.2.

Holotype (BISHOP 11,323), S VIETNAM: Fyan, 900–1000 m, 11.VII.–9.VIII.1961, N. R. Spencer; paratopotypes, 14 ex, same data as holotype; paratypes, 6 km S of Dalat, 1400–1500 m, 2 ex, 9.VI–7.VII.1961, Spencer; 20 km from DiLinh (Djiring), 1 ex, 22.–28.IV.1960, L. W. Quate; Bloao (Balao), 500 m, 1 ex, 14.–21.X.1960, C. M. Yoshimoto; Mt Lang Bian, 1500–2000 m, 1 ex, 19.V–8.VI.1961, Spencer (BISHOP, KIMOTO).

Differs from *L. nigrofrontalis* Clark in having pronotum irregularly punctured, and from that species and from *L. miyatakei,* n. sp. in having elytron more swollen basally and with punctures smaller than interspaces at middle.

Lema (Lema) tonkinea Pic

Lema tonkinea Pic, 1924, Mél. Exot. Entomol. **41:** 11 (Tonkin; PARIS).

Distribution. Vietnam.

No additional material.

Lema (Lema) trifasciata Jacoby FIG. 20c–d

Lema trifasciata Jac., 1908, Fauna India, Coleopt. **2:** 44 (India; BMNH).—Kimoto, 1972, Entomol. Rev. Jpn **24** (1/2): 44, fig. 1c (Thailand).

Distribution. India, Thailand, Laos, Cambodia, Vietnam.

Material examined. THAILAND: Chiang Mai Prov., Mae Klang Waterfall, nr Chom Thong, 1 ex, 11.VI.1965, K. Morimoto (KU). LAOS: Sedone Prov., Paksong, 1 ex, 5.VIII.1965, native collr; Borikhane Prov., Paksane, 1 ex, 31.VIII.1965, native collr (BISHOP). CAMBODIA: Kiri Rom, 700 m, 1 ex, 31.III.–7.IV.1961, N. R. Spencer (BISHOP). VIETNAM: NW of Pleiku, 300 m, 1 ex, 10.V.1960, L. W. Quate (BISHOP).

Lema (Lema) viridiapicalis Pic FIG. 19c

Lema viridiapicalis Pic, 1938, Bull. Soc. Zool. Fr. **63:** 355 (Siam; ? PARIS).

Distribution. Thailand.

No additional material.

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