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# Revision of the genus Monolepta Chevrolat from the Philippines (Coleoptera, Chrysomelidae) 

by Lev N. Medvedev


#### Abstract

A revision of the Philippines Monolepta Chevrolat, 1837 is proposed. A key to species includes 86 taxa, among them 59 new species and 2 new subspecies. The new species are: Monolepta aethiops, armatipennis, bakeri, basilana, beeneni, biimpressa, bipustulata, boholensis, bolmi, brancuccii, collaris, decolora, decorata, elgae, epipleuralis, flavescens, foveipennis, foveopyga, fulvescens, fulvonigra, fulvovittata, joliveti, kimotoi, labrata, luzonica, maramagi, marginalis, martini, metallescens, mindanaica, multinotata, nigricapitis, nigristerna, notaticollis, obscuricollis, obscuricornis, obscuripennis, parallela, posthumeralis, proxima, pulicaria, roseofulva, rosinae, rubrofulva, rugosipennis, sargaonica, sculpticollis, sexpunctata, schultzei, sprecherae, staudingeri, suturata, tarsata, tasadayca, tenebrosa, tuberculata, vulgatissima, wagneri, weisei. New subspecies are: Monolepta laysi fulvescens and M. posthumeralis samarensis subspp.nov. The former species Monolepta bifoveolata Weise, 1910 is classified as a subspecies of M. cumingi Baly, 1888 here: M. cumingi bifoveolata Weise, 1910 stat.nov.


Key words. Coleoptera - Chrysomelidae - Galerucinae - Monolepta - Philippines - key - new taxa

## Introduction

The genus Monolepta Chevrolat, 1837, including about 600 species and of worldwide distribution, is very poorly studied on the Philippines. Schultze's catalogue (1916) includes 12 species (in practice only 11, because of 1 synonym). In the world catalogue by Wilcox (1973) this number increased to 14, and 3 more species have been described in recent years (Medvedev 1997, 2002). Therefore the total number of species registered for the Philippines now reaches 17. In this communication, 61 taxa ( 59 species and 2 subspecies) are described as new for science.

The taxonomy of this large genus, possibly the largest one in the subfamily Galerucinae, is also in need of revision. This undertaking was begun by WaGNER (1999) for African fauna. Very possibly, Oriental species may also be divided into a few subgenera and even genera, but this is a matter for future investigations.

## Material and Methods

Many years ago I received a large body of material of Philippines Galerucinae from Mr. N. Philippov which had originated with the "Staudinger \& Bang-Haas" company, which included about 500 specimens of Monolepta. Unhappily, it was not very well prepared and partly damaged by Anthrenus. Nevertheless this publication is based mostly on this material, but partly also on the collections in the Naturhistorisches Museum Basel and my own.

Species of this genus are generally very homogenous in morphological terms, so only the characters necessary for determination are used in the descriptions. For differential diagnoses of new species, see the key to Philippine species of Monolepta.

## Abbreviations for depositories

NHMB . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Naturhistorisches Museum, Basel
LM
author's collection

## Preliminary key to Monolepta of the Philippines

1(6) Elytra metallic blue or dark blue.
2(3) Body black with red abdomen. Prothorax transversely impressed, impunctate. Length 5 mm . Leyte Isl. $\qquad$ M. cyanipennis Allard, 1889

3(2) Head, prothorax and legs fulvous. Prothorax evenly convex, finely punctate. Species from Mindanao.

4(5) Antennal segment 4 a little longer than 2+3. Last abdominal segment fulvous. Body larger, 3.6 mm . M. metallescens sp.nov.

5(4) Antennal segment 4 a little shorter than 2+3. Last abdominal sternite black. Aedeagus - Fig. 22. Body smaller, 2.7-3 mm. ... M. bolmi sp.nov.

6(1) Elytra not metallic.
7(10) Upperside entirely black. Prothorax evenly convex.
8(9) Prothorax and especially elytra strongly punctate. Head entirely black. Antennae black with fulvous basal segments, femora and tibiae black except at bases. Aedeagus (Fig. 23) thin, almost straight in lateral view. Length $2.1-2.7 \mathrm{~mm}$. Palawan M. aethiops sp.nov.

9(8) Upperside very finely punctate, especially prothorax. Anterior part of head fulvous. Antennae fulvous with apical segments 1-2 black. Aedeagus (Fig. 24) thick, curved in lateral view. Length 2.4-2.7 mm. Mindanao, ?Luzon. M. tenebrosa sp.nov.

10(7) Upperside not entirely black.
11(14) Prothorax black or dark piceous, sometimes with fulvous spots.
12(13) Prothorax black with 2 fulvous spots at base. Elytra black with 4 fulvous spots on each (1,1,1,1, Fig. 1). Underside and legs black. Length 6 mm . Luzon. M. baeri Allard, 1887

13(12) Prothorax dark piceous, without fulvous spots. Elytra dark fulvous with piceous stripe on side margin. Underside black, legs fulvous. Length 3.0 mm . Mindanao. M. obscuricollis sp.nov.

14(11) Prothorax fulvous, sometimes with black spots.
15(18) Prothorax fulvous, with black spots.
16(17) Prothorax with dark sides and 4 spots: 2 in centre, 2 near posterior angles. Elytra fulvous, lateral and sutural margins and transverse band
before centre dark reddish-brown (Fig. 2). Underside and legs dark reddish-brown. Length 5 mm . Luzon. M. puncticollis Allard, 1887

17(16) Prothorax with 4 spots: 2 in centre, 2 near posterior angles. Elytra black. Underside black, legs fulvous. Length 2.9 mm . Palawan.
M. notaticollis sp.nov.

18(15) Prothorax entirely fulvous red, rarely darkened at the sides.
19(26) Elytra entirely black. Prothorax without impressions. Head and abdomen fulvous or red, metasternum black.

20(21) Tibiae and tarsi black, femora fulvous with black apices. Antennae black with 3 basal segments fulvous. Abdomen fulvous with black apical segment. Length 3.8-3.9 mm. Male unknown. Mindanao.
M. maramagi sp.nov.

21(20) Legs entirely fulvous. Antennae fulvous with 1-2 apical segments dark to black.

22(23) Last abdominal sternite and pygidium black. Antennal segment 4 distinctly longer than $2+3$. Elytra almost parallel-sided. Length 4.2-4.4 mm. Luzon.
M. luzonica sp.nov.

23(22) Abdomen and pygidium entirely fulvous. Antennal segment 4 distinctly shorter than $2+3$. Elytra ovate, rounded on sides.

24(25) Length 3.5 mm . Luzon.
M. obscuripennis sp.nov.

25(24) Length $2.5-3 \mathrm{~mm}$. Mindanao ( 1 immature specimen with fulvous metasternum), Polillo Isl. (2 specimens in poor state; not identifiable). M. sp. A

26(19) Elytra not entirely black.
27(34) Elytra black with red apex or posterior half.
28(29) Prothorax with transverse impression, elytra without postbasal impression. Body fulvous; vertex, metasternum and legs black. Length 6 mm. Palawan. .............................................. M. palawana Weise, 1913

29(28) Prothorax evenly convex. Elytra of male with impression in anterior half, of female with shallow postbasal impression.

30(31) Prothorax only slightly broader (in type 1.06) than long. Antennae with 3 basal segments fulvous, 4-7 (or 4-5) black, apical segments white or pale flavous (black apex of apical one excepted). Tibiae and tarsi black. Black colour of elytra sometimes partly reduced. In male posthumeral area strongly elevated, impunctate, with deep and curved groove in centre. Length 5.3-6.3 mm. Luzon. ....... M. cumingi cumingi Baly, 1888

31(30) Prothorax distinctly transverse. Elytra of male with impression in anterior half between sutural and lateral margins.

32(33) Antennae flavous with segment 11 and sometimes 10 black. Legs fulvous with black tibiae and tarsi. Prothorax 1.25-1.3 times as wide as long. Elytra of male with large feeble impression in anterior half with thickened outer and hind margins. Length $5.2-7 \mathrm{~mm}$. Philippines (Luzon), Sumbawa, Sulawesi, Java, Borneo, Sumatra. $\qquad$ M. terminata Guerin, 1830

33(32) Antennae with 3 basal segments fulvous, 4-7 black, 8-10 pale flavous, 11 pale with black apex. Legs fulvous. Prothorax 1.5 times as wide as long. Elytra of male with large ovate groove in middle of anterior half, extending downwards to a little under median line. Length 5.2-6.3 mm. Philippines, Mysol, Sulu Islands, New Guinea, Australia. Indication for the Philippines needs confirmation. M. haemorrhoidalis Fabricius, 1801

34(27) Elytra otherwise colored.
35(48) Elytra black with fulvous stripe or spots. Metasternum black.
36(37) Abdomen black. Elytra with fulvous stripe, sometimes very broad. Hind legs more or less darkened, usually black with fulvous knees. Body elongate, broadest just behind humeri, distinctly narrowed anteriorly and posteriorly. Length 2.4-3.5 mm. Palawan. ........ M. pulicaria sp.nov.

37(36) Abdomen fulvous, often with black apical segment.
38(43) Head or at least frons and vertex black.
39(40) Elytra with large and broad fulvous stripe (Fig. 3). Apex of abdomen black. Length 4.0-5.0 mm. M. fulvovittata sp.nov.

40(39) Elytra with 1-2 transverse fulvous bands. Apex of abdomen fulvous.
41(42) Elytra with one fulvous band in the centre. Antennae fulvous. Legs fulvous with basal halves of mid and hind femora black. Length 2.6-2.7 mm . Mindanao. M. martini sp.nov.

42(41) Elytra with narrow band in the centre and another one before the apex. Antennae, tibiae and tarsi black, femora fulvous. Length 3.2 mm . Java, indicated also for Palawan, but this record is very doubtful and needs confirmation. M. albofasciata Jacoby, 1884

43(38) Head fulvous. Elytra with fulvous spots, sometimes connected and forming longitudinal stripe.

44(45) Elytra with 1 transverse spot at middle. Antennae and legs fulvous, apex of last abdominal segment black. Length 3.0-3.2 mm. Mindanao.
M. bipustulata sp.nov.

45(44) Elytra with 2 spots each, sometimes connected.
46(47) Elytra with 2 fulvous spots, sometimes connected (Figs 4, 5). Pygidium simple. Apex of abdomen and basal half of mid and hind femora black. Length 3-3.4 mm. Mindanao. $\qquad$ M. foveopyga sp.nov., female

47(46) Elytra with 2 spots and apex red-fulvous (Fig. 6). Pygidium with 2 deep grooves divided by high ridge. Abdomen and legs entirely fulvous. Length 2.9-3.5 mm. See also item 50. Mindanao. $\qquad$ M. foveopyga sp.nov., male

48(35) Elytra fulvous with or without black marks.
49(96) Elytra with black marks, sometimes with very narrow black margins.
50(51) Elytra with black sutural and lateral stripes, connected at base (Fig. 7). Pygidium with 2 deep grooves divided by high ridge. Length 2.9-3.5 mm . See also item 47. Mindanao. ................. M. foveopyga sp.nov., male

51(50) Elytra otherwise marked. Pygidium simple.
52(73) Disc of elytra with distinct dark bands or spots.
53(54) Body pale flavous, each elytron with 18 or 19 black spots (Fig. 8). Length 4 mm . Mindanao. $\qquad$ M. multinotata sp.nov.

54(53) Elytra otherwise marked.
55(68) Elytra with basal black (sometimes piceous or red-piceous) band.
56(63) Elytra with basal band only, without other marks. Breast black. Prothorax evenly convex.

57(60) Prothorax and elytra fulvous. Elytral black band occupies about $1 / 8-1 / 10$ of elytral length. Labrum and legs fulvous, metasternum black.
58(59) Head with microsculpture. Basal elytral band serrate on hind margin (Fig. 9). Aedeagus narrowed to apex (Fig. 30). Body elongate ovate, length 6.7 mm . Luzon. M. nigristerna sp.nov.

59(58) Head without microsculpture. Basal elytral band not serrate on hind margin, apex of elytra sometimes darkened (Figs 17-19). Aedeagus distinctly cuneiform (Fig. 31). Body ovate, length 3-3.6 mm. Luzon, Mindanao. M. decorata sp.nov.

60(57) Prothorax fulvous, predominant color of elytra red. Labrum and femora black, except apices.
61(62) Black basal band occupies about $1 / 3$ of elytral length, with undulate hind margin (Fig. 10). Length 4.7-5.2 mm. Mindanao.
M. brancuccii sp.nov.

62(61) Black basal band occupies about $1 / 6$ of elytral length, with distinct hind border. Length 3.8 mm . Luzon, 1 female, possibly color form or subspecies of preceding species. M. sp. B

63(56) Elytra with postmedian band or spot.
64(65) Head and breast black. Elytra, with the exception of basal and postmedian bands, also with black apex. Antennae except basal
segments, tibiae, tarsi and in female apex of last abdominal segment black. Aedeagus - Fig. 33. Length 4.6-5.2 mm. Palawan.
M. staudingeri sp.nov.

65(64) Head fulvous. Apex of elytra not black.
66(67) Prothorax red, with deep impression on each side. Elytra tricolor: narrow basal strip and apex red, postbasal and postmedian bands connected along side margin black, central part fulvous (Fig. 11). Pygidium and metasternum red, abdomen fulvous. Length 4.6 mm . Bohol M. boholensis sp.nov.

67(66) Prothorax fulvous, without depressions. Elytra fulvous with basal band and postmedian spot or band black or pitchy or partly red (Fig. 12). Pygidium black, underside fulvous with metasternum more dark (not black). Aedeagus - Fig. 34. Length 3.5-4.7 mm. Philippines: Luzon, Samar, Mindanao, Siargao; India, Sri Lanka, Indochina, Malaya, Sumatra, New Guinea (syn. M. multicolor Gmelin, 1790, M. quadrinotata Fabricius, 1801, M. latefascia Motschulsky, 1858, M. rubrosignata Boheman, 1859) M. bifasciata Hornstedt, 1788

68(55) Elytra without basal black band.
69(70) Apical third of elytra black. Fulvous, antennae except 2 or 3 basal segments, pygidium, abdomen except base, apices of tibiae and tarsi black. Body narrow and elongate. Aedeagus - Fig. 35. Length 3.3-4 mm . Luzon.
M. fulvonigra sp.nov.

70(69) Elytra otherwise marked.
71(72) Basal half of elytra with irregular black ring including fulvous spot, very narrow along basal margin (Fig. 13). Body fulvous with black metasternum, antennae dark with fulvous basal segments. Prothorax evenly convex. Length $3.5-4 \mathrm{~mm}$. Philippines: Luzon, Montalban; East Palearctic, China, Indochina, Burma, Malaya, Sumatra (syn. M. elegantula Boheman, 1859, M. biarcuata Weise, 1889). M. hieroglyphica Motschulsky, 1858

72(71) Each elytron with 3 spots $(2,1)$ and lateral margin black anteriorly (Fig. 14). Fulvous, labrum and metasternum black. Prothorax with impressions. Length 5.8 mm . Mindanao. M. sexpunctata sp.nov.

73(52) Only the narrow elytral margins are black.
74(75) Prothorax almost subquadrate ( 1.15 times as wide as long), narrowed to base. Head, prothorax, pygidium, underside and femora red, elytra, tibiae and tarsi fulvous, antennae pale flavous. Elytra with basal and anterior part of lateral margin very narrowly black. Epipleurae black. ...
$\qquad$
75(74) Prothorax distinctly transverse.
76(91) Sutural and/or lateral margins of elytra black, sometimes very narrowly.

77(78) Only sutural margin of elytra with comparatively broad black stripe (Fig. 15). Antennae except basal segments and metasternum black. Elytra strongly punctate. Body narrow, parallel-sided. Length 2.5 mm . M. suturata sp.nov.

78(77) Elytra otherwise marked.
79(82) Prothorax darkened on side margins. Epipleurae and metasternum black.

80(81) Prothorax with distinct transverse impression. Elytra, except suture, narrowly margined in black. Length 4.0 mm . Palawan.
M. collaris sp.nov.

81(80) Prothorax evenly convex. Elytral margins, except base, black. Length 3.5 mm . Luzon: Imugan, 1 female. M. sp. D

82(79) Prothorax not darkened on sides. All elytral margins black.
83(86) Underside black.
84(85) Prothorax impressed in the centre. Head and prothorax red, elytra fulvous. Antennae black. Aedeagus - Fig. 38. Body elongate, 3.2-3.5 mm . Palawan.
M. rubrofulva sp.nov.

85(84) Elytra evenly convex, fulvous or red fulvous. Elytra on apex and in middle of lateral margin with piceous, poorly delimited widening of black color (Fig. 16). Body short ovate, $2.6-2.8 \mathrm{~mm}$. Mindanao: Mt. Tasaday, 2 females. M. sp. E

86(83) At least abdomen fulvous.
87(90) Prothorax evenly convex.
88(89) Metasternum black, antennae fulvous. Body short ovate, 3.3 mm . Mindanao: Momungan, 1 female. M. sp. F

89(88) Underside fulvous, antennae with darkened apical segments. Body elongate ovate, 3.9 mm . Mindanao: Mt. Tasaday, 1 female. M. sp. G

90(87) Prothorax impressed on each side. Dark fulvous with elytra more pale than prothorax, antennae dark with fulvous basal segments. Aedeagus Fig. 39. Length $3.1-4.5 \mathrm{~mm}$. Luzon. $\qquad$ M. satoi L. Medvedev, 1997

91(76) Only basal margin of elytra very narrowly black; epipleurae black at base.

92(93) Antennal segment 4 about 1.5 times as long as 2 and 3 together. Underside fulvous. Aedeagus with distinctly narrowed apical part (Fig. 40). Length 5.4-6.5 mm. Mindanao, Luzon. ............ M. marginalis sp.nov.

93(92) Antennal segment 4 about as long as 2 and 3 together. Aedeagus almost parallel-sided (Fig. 41). Length $5.6-6.3 \mathrm{~mm}$.

94(95) Metasternum black. Luzon, Mindanao, Leyte, Polillo. ...... M. beeneni sp.nov.
95(94) Metasternum fulvous. Very possibly colour form of preceding species. Luzon: Buranen (including male), Mindanao: Surigao, Zamboanga. M. sp. H

96(49) Elytra entirely fulvous or red.
97(98) Prothorax very uneven, roughly sculptured, with 3 impressions: 2 lateral, 1 in centre beyond anterior margin. Body entirely fulvous, length 4.2-4.5 mm. Luzon. M. sculpticollis sp.nov.

98(97) Prothorax finely or strongly, but not roughly, punctate, evenly convex or with lateral impressions.

99(114) Prothorax or elytra modified in male.
100(101) Prothorax of male with 2 large oblique impressions divided by obtuse ridge, in female evenly convex. Antennae tricolor: segments 1 and 2 red, $3-5$ black, 6-11 white. Body red or red-fulvous with tibiae and tarsi darkened to a greater or lesser extent. Mindanao.
M. carinicollis L. Medvedev, 2002

101(100) Male: prothorax simple, elytra modified.
102(105) Male: elytra with shallow longitudinal impression on apical slope near suture and flattened beyond scutellum along suture. Prothorax impressed on each side. Antennal segment three times as long as 2. Aedeagus - Fig. 43.

103(104) Body red or red-fulvous with pale flavous antennae. Length 5.2-7 mm. Mindanao. M. laysi L. Medvedev, 2002

104(103) Body entirely fulvous. Length 5.3 mm . Luzon. M. laysi fulvescens subsp.nov.

105(102) Male: sexual modifications are placed in anterior half of elytra.
106(111) Male: sexual modifications are placed in humeral area of elytra. Antennal segment 3 about 1.5 times as long as 2 .

107(108) Body red-fulvous, antennal segments 1-3 fulvous, 4-6 black, 7-11 flavous, tibiae and tarsi black. Prothorax 1.1 times as broad as long. Male: posthumeral area strongly elevated, impunctate, with deep, round groove in centre. Length $5.6-6 \mathrm{~mm}$. Mindoro, Mindanao
M. cumingi bifoveolata Weise, 1910 stat. nov.

108(107) Body entirely fulvous, including antennae. Elytra lacking deep groove. Aedeagus with long and thin apical process divided on extreme apex (Fig. 44).

109(110) Male: elytra with large and shallow subquadrate impression delimited anteriorly and sides; impression large and obliquely divided by higher ridge. Length 5.5 mm . Mindanao. M. posthumeralis sp.nov.

110(109) Male: elytra with more small ovate and shallow impression, feebly delimited laterally. Length 5.3 mm . Luzon.
............................................. M. posthumeralis samarensis subsp.nov.
111(106) Male: sexual modifications placed in sutural area of elytra to the rear of scutellum.

112(113) Labrum and metasternum black. Segment 1 of hind tarsus 1.5 times as long as 2 and 3 together. Elytra of male with small ovate groove on each side of suture (Fig. 20). Length $4.4-4.9 \mathrm{~mm}$. ..... M. foveipennis sp.nov.

113(112) Labrum and metasternum fulvous. Segment 1 of hind tarsus three times as long as 2 and 3 together. Elytra of male with drop-like impression on each side of suture, delimited anteriorly with a tubercle (Fig. 21). Length 4.5-4.9 mm. M. armatipennis sp.nov.

114(99) Prothorax and elytra not modified in male.
115(116) Head black. Body fulvous, only inner margin of epipleurae black. Upperside densely punctate. Aedeagus - Fig. 46. Length 3.3-4.8 mm. Palawan. ............................................................. M. nigricapitis sp.nov.
116(115) Head fulvous.
117(126) Labrum black.
118(123) Antennae fulvous.
119(120) Segment 1 of fore-tarsi very strongly widened in male. Prothorax evenly convex. 11th antennal segment fulvous. Aedeagus cuneiform (Fig. 47). Length $5.1-5.4 \mathrm{~mm}$. Mindanao.
M. tarsata sp.nov.

120(119) Segment 1 of fore-tarsi not widened in male. Prothorax with feeble or distinct impressions. 11th antennal segment with black apical half.
121(122) Prothorax with very feeble lateral impressions. Aedeagus cuneiform, with very thin apical half (Fig. 48). Length 3.7-4.2 mm. Luzon, Panay. ....
M. labrata sp.nov.

122(121) Prothorax with distinct lateral impressions. Aedeagus with parallelsided apical half (Fig. 49). Length 4.5-5.2 mm. Mindanao.
$\qquad$ M. proxima sp.nov.

123(118) Antennae entirely or mostly black.
124(125) Antennal segments 1-3 fulvous. Elytra very finely punctate. Apex of aedeagus curved in lateral view (Fig. 50). Length 4.7 mm . Luzon. M. elgae sp.nov.

125(124) Antennae entirely black. Elytra distinctly and densely punctate. Aedeagus arcuate in lateral view (Fig. 51). Length 4.4 mm . Bohol. $\qquad$ M. obscuricornis sp.nov.

126(117) Labrum fulvous.
127(128) Body large, 9.3-12 mm. Antennae, apart from basal segments and very often tibiae and tarsi, black. Anterior coxal cavities narrowly open. Philippines: Luzon; widely distributed in Oriental region (syn. M. concolor Boheman, 1859, M. fulva Baly, 1886).
M. nigripes Olivier, 1808

128(127) Body much smaller, not more than 6 mm . Tibiae and tarsi not black.
129(130) Antennae black with segment 1 fulvous, 2 and 3 piceous. Elytra strongly and densely punctate. Aedeagus (Fig. 52) curved in lateral view. Length 5.2 mm . Mindanao. M. bakeri sp.nov.

130(129) Antennae fulvous or apical segments more or less darkened.
131(156) Prothorax evenly convex.
132(133) Body red with pale flavous elytra (at least partly) and abdomen, strongly convex, especially beyond centre. Elytra broadest before apex. Hind tibiae curved. Tibiae and tarsi often darkened or black. Aedeagus - Fig. 53. Length $4.3-5.2 \mathrm{~mm}$. M. roseofulva sp.nov.

133(132) Elytra do not differ sharply in colour from prothorax, usually broadest near centre. Body not strongly convex, hind tibiae not usually curved.

134(139) Pygidium modified, with impressions or tubercle (possibly only in male).

135(136) Pygidium with tubercle before apex. Body red. Aedeagus short and broad, narrowed apically, with subtruncate apex (Fig. 54). Length 4.3 mm . Mindanao M. tuberculata sp.nov.

136(135) Pygidium with impressions.
137(138) Pygidium with 2 deep grooves divided by ridge and additional small groove near anterior margin. Aedeagus (Fig. 55) parallel-sided, straight in lateral view. Length 3.3-4.2 mm. Mindanao. .... M. biimpressa sp.nov.
138(137) Pygidium deeply grooved in centre. Aedeagus (Fig. 56) with broad basal and narrow apical half. Length 3 mm . Palawan.
M. impressipyga sp.nov.

139(134) Pygidium simple, evenly convex.
140(141) Frontal tubercles not developed, transverse impression between frons and vertex absent. Body short ovate, elytra ovate, broadest in centre and beyond, 1.3 times as long as wide. Inner margin of epipleurae black. Aedeagus - Fig. 57. Length 2.4-2.8 mm. Luzon, Mindanao, Panaon. M. epipleuralis sp.nov.

141(140) Frontal tubercles more or less distinct, transverse impression between frons and vertex developed. Inner margin of epipleurae not black.

142(149) Body length 2-4 mm.
143(144) Length 2 mm . Body elongate, elytra parallel-sided. Aedeagus - Fig. 58. Luzon. M. parallela sp.nov.

144(143) Body larger. Elytra ovate, with rounded lateral margins. Species differs mostly in form of aedeagus.
145(148) Aedeagus narrow, parallel-sided.
146(147) Aedeagus very long and thin (length 1.8 mm ), about 12 times as long as wide, with subtruncate apex (Fig. 59). Length 3.7 mm . Mindanao.
M. decolora sp.nov.

147(146) Aedeagus moderately long (length 1.3 mm ), about 8 times as long as wide, with triangular or rounded triangular apex (Fig. 60). Length $2.8-4.1 \mathrm{~mm}$ (mostly $2.8-3.5 \mathrm{~mm}$ ). $\qquad$ M. mindanaica sp.nov.

148(145) Aedeagus narrowed from base to apex (Fig. 61). Length 4 mm . Mindanao. M. rosinae sp.nov.

149(142) Body larger than 4 mm .
150(151) Prothorax feebly cordiform, broadest in anterior quarter and slightly emarginate before acute rear angles, 1.25-1.4 times as broad as long; surface impunctate. Vertex with groove beyond transverse impression. Antennal segment 3 longer than 2. Aedeagus (Fig. 62) almost parallelsided. Length 4.1-4.8 mm. Sargao. M. sargaonica sp.nov.

151(150) Prothorax not cordiform, with rounded side margins, $1.5-1.8$ times as wide as long; surface at least finely punctate. Vertex without groove beyond transverse impression. Antennal segment 3 usually equal to 2 .
152(153) Aedeagus not cuneiform. Body large, 5-6 mm. Antennal segment 4 about 1.5 times as long as 2 and 3 together. Aedeagus as in $M$. marginalis sp.nov. Mindanao: Bango, 6 ex. [Very possibly colour form of $M$. marginalis sp.nov. without black basal margin.]
M. sp. I

153(152) Aedeagus distinctly cuneiform.
154(155) Body feebly convex. Antennal segment 4 as long as 2 and 3 together. Aedeagus - Fig. 63. Length 4-4.7 mm. Luzon. ......... M. kimotoi sp.nov.

155(154) Body strongly convex. Antennal segment 4 about 1.5 times as long as 2 and 3 together. Aedeagus - Fig. 64. Length 4.4-5.2 mm. Mindanao. . $\qquad$ M. fulvescens sp.nov.

156(131) Prothorax impressed on each side. Numerous and very uniform species, which differs mostly in form of aedeagus.
157(160) Body small, not more than 3.5 mm .

158(159) Species from Mindanao. Apical antennal segments more or less darkened. Aedeagus - Fig. 65. Length 2.2-2.7 mm. M. wagneri sp.nov.

159(158) Species from Palawan. Antennae fulvous, only eleventh segment darkened at apex. Aedeagus - Fig. 66. Body larger, 2.7-3.5 mm.
M. schultzei sp.nov.

160(157) Body larger, not less than 3.5 mm .
161(164) Aedeagus distinctly arcuate in lateral view, comparatively short and thick.

162(163) Antennal segment 4 about 1.5 times as long as 2 and 3 together . Aedeagus - Fig. 67. Length 4.5-4.6 mm. Mindanao.
M. flavescens sp.nov.

163(162) Antennal segment 4 times as long as $2+3$. Aedeagus - Fig. 68. Length $4.8-5.1 \mathrm{~mm}$. Mindoro. M. sprecherae sp.nov.

164(161) Aedeagus straight or slightly curved in lateral view, mostly thin and long.
165(168) Upperside dull, very densely punctate, interspaces on elytra very narrow, convex, more or less rugose.

166(167) Frons a little wider than eye. Antennal segment 3 a little shorter than 2, segments $2+3$ distinctly shorter than 4 . Prothorax with very feeble impressions. Aedeagus - Fig. 69. Length 5.3-6.0 mm.
....................................................................... M. rugosipennis sp.nov.
167(166) Frons a little narrower than eye. Antennal segment 3 a little longer than 2 , segments $2+3$ almost as long as 4 . Prothorax with distinct impression. Aedeagus - Fig. 70. Body larger, 6.8 mm .
M. tasadayca sp.nov.

168(165) Upperside lustrous, not very densely punctate.
169(170) Aedeagus sharply cuneiform (Fig. 71). Antennal segment 4 as long as $2+3$. Length 3.6-4.5 mm. Luzon, Mindanao. ........ M. vulgatissima sp.nov.
170(169) Aedeagus more or less parallel-sided, sometimes complex.
171(174) Aedeagus simple. Antennal segment 4 longer than 2+3, segment 2 as long as 3.

172(173) Extreme apex of aedeagus curved upwards (Fig. 72). Antennal segment 4 about 3 times as long as 2 . Length $4.6-5.1 \mathrm{~mm}$. Mindanao.
M. joliveti sp.nov.

173(172) Extreme apex of aedeagus not curved upwards (Fig. 73). Antennal segment 4 about 2.4 times as long as 3 . Length $3.8-4 \mathrm{~mm}$. Basilan.


Figs 1-21. Figs 1-19, colour pattern of elytra: 1, Monolepta baeri Allard; 2, puncticollis Allard; 3, fulvovittata sp.nov.; 4, 5, foveopyga sp.nov., female; 6-7, foveopyga sp.nov., male; 8, multinotata sp.nov.; 9, nigristerna sp.nov.; 10, brancuccii sp.nov.; 11, boholensis sp.nov.; 12, bifasciata Hornstedt; 13, hieroglyphica (Motschulsky); 14, sexpunctata sp.nov.; 15, suturata sp.nov.; 16, sp. E.; 17-19, decorata sp.nov. Figs 20-21, structure in humeral part of male elytra: 20, foveipennis sp.nov.; 21, armatipennis sp.nov.

174(171) Aedeagus complex, with long, longitudinally-grooved apical lobe and produced protuberance before orifice (Fig. 74, 75). Antennal segment 4 as long as $2+3$, segment 2 shorter than 3. Length $4.4-6 \mathrm{~mm}$. Luzon, Samar, Mindanao M. weisei sp.nov.






Figs 22-43. Aedeagus: 22, Monolepta bolmi sp.nov.; 23, aethiops sp.nov.; 24, tenebrosa sp.nov.; 25, obscuricollis sp.nov.; 26, notaticollis sp.nov.; 27, pulicaria sp.nov.; 28, fulvovittata sp.nov.; 29, foveopyga sp.nov.; 30, nigristerna sp.nov.; 31, decorata sp.nov.; 32, brancuccii sp.nov.; 33, staudingeri sp.nov.; 34, bifasciata Hornstedt; 35, fulvonigra sp.nov.; 36, suturata sp.nov.; 37, collaris sp.nov.; 38, rubrofulva sp.nov.; 39, satoi L. Medvedev; 40, marginalis sp.nov.; 41, beeneni sp.nov.; 42, sculpticollis sp.nov.; 43, laysi L . Medvedev.


Figs 44-59. Aedeagus: 44, Monolepta posthumeralis sp.nov.; 45 -foveipennis sp.nov.; 46, nigricapitis sp.nov.; 47, tarsata sp.nov.; 48, labrata sp.nov.; 49, proxima sp.nov.; 50, elgae sp.nov.; 51, obscuricornis sp.nov.; 52, bakeri sp.nov.; 53, roseofulva sp.nov.; 54, tuberculata sp.nov.; 55, biimpressa sp.nov.; 56, impressipyga sp.nov.; 57, epipleuralis sp.nov.; 58, parallela sp.nov.; 59, decolora sp.nov.


Figs 60-75. Aedeagus: 60, Monolepta mindanaica sp.nov.; 61, rosinae sp.nov.; 62, sargaonica sp.nov.; 63, kimotoi sp.nov.; 64, fulvescens sp.nov.; 65, wagneri sp.nov.; 66, schultzei sp.nov.; 67, flavescens sp.nov.; 68, sprecherae sp.nov.; 69, rugosipennis sp.nov.; 70, tasadayca sp.nov.; 71, vulgatissima sp.nov.; 72, joliveti sp.nov.; 73, basilana sp.nov.; 74, weisei sp.nov., Luzon; 75, weisei sp.nov., Samar (apical part).


Figs 76-78. Spermatheca: 76, Monolepta bolmi sp.nov.; 77, roseofulva sp.nov.; 78, rugosipennis sp.nov.

## Descriptions of new taxa

## Monolepta metallescens sp.nov.

Material examined. Holotype (female): Mindanao, S. Cotabato Prov., Manobo Tasaday Forest Reserve, Mt. Tasaday, 3.II.-10.III.1991, leg. P. Lays (LM).
Description. Head, prothorax and legs fulvous, antennae black with fulvous basal segments, elytra metallic blue, underside black with last abdominal sternite and pygidium fulvous.

Body elongate, almost parallel-sided. Head impunctate, frontal tubercles transverse, very narrow, sharply delimited posteriorly, frons 1.5 times as wide as eye. Antennal segments $2-5$ proportions: 5-6-13-13. Prothorax 1.8 times as wide as long, evenly convex, distinctly punctate. Elytra 1.5 times as long as wide, with strong, dense punctures. Pygidium conical, long and narrow. Segment 1 of hind tarsus 3.5 times as long as $2+3$.

Length of body 3.6 mm .

## Monolepta bolmi sp.nov.

Material examined. Holotype (male): Mindanao, 30 km W of Maramag, $1600 \mathrm{~m}, 28-30 . \mathrm{XII} .1990$, leg. Bolm (NHMB). Paratypes: same locality, 3 ex. (NHMB, 1 ex. LM); Mindanao, Maramag Prov., Potulin, 1700 m, 3.I.1991, leg. Bolm, 1 ex. (NHMB).

Description. Fulvous, antennae piceous with fulvous basal segments, elytra dark metallic blue, underside, mid- and hind femora, apart from apices, and mid- and hind femora, apart from bases, black.

Body elongate ovate. Head impunctate, lustrous, frontal tubercles feeble, but delimited posteriorly with transverse impression. Frons 1.8 times as wide as eye. Antennal segments $2-5$ proportions: $5-5-8-8$, preapical segments about $2-2.5$ times as long as wide. Prothorax twice as wide as long, evenly convex, lustrous, strongly punctate. Elytra 1.4 times as long as wide, almost parallel-sided, lustrous, strongly and densely punctate. Segment 1 of femora and middle tarsi not widened in male, same segment of hind tarsi almost 3 times as long as $2+3$. Aedeagus (immature) thin, with elongate acute apex (Fig. 22). Spermatheca - Fig. 76.

Length of body $2.7-3.1 \mathrm{~mm}$.
Derivatio nominis. This species is dedicated to its collector.

## Monolepta aethiops sp.nov.

Material examined. Holotype (male): N. Palawan, Bahile, $50 \mathrm{~m}, 22 . \mathrm{XII} .1992$, leg. Bolm (NHMB). Paratypes: same locality, 4 ex. (NHMB, 1 ex. LM); Palawan, Port Barton, 150 m, 14-18.XII. 1990, leg. Bolm, 1 ex. (NHMB); Palawan, Cleopatra's Needle N. P., Tanabank, river valley, 300 m, 20-22.XII.1990, leg. Bolm, 3 ex. (NHMB, 1 ex. LM).

Description. Black, basal segments of antennae, bases of tibiae and partly tarsi fulvous.
Body ovate. Head impunctate, lustrous; frontal tubercles transverse, feebly convex, delimited posteriorly with straight impression; frons 1.1 times as wide as eye. Antennal segments $2-5$ proportions: $7-10-15-15$, preapical segments about 3 times as long as wide. Prothorax 1.7 times as wide as long, evenly convex, lustrous, distinctly punctate. Elytra 1.3 times as long as wide, lustrous, with moderately strong and dense punctures; interspaces mostly larger than punctures. Segment 1 of fore- and middle tarsi not widened in male, of hind tarsi about 3 times as long as $2+3$. Aedeagus (Fig. 23) thin, cuneiform, almost straight in lateral view.

Length of body 2.1-2.7 mm.

## Monolepta tenebrosa sp.nov.

Material examined. Holotype (male): Mindanao, South Cotabato Prov., lake Sebu ( $6^{\circ} 13^{\prime} \mathrm{N}, 124^{\circ} 42^{\prime} \mathrm{E}$ ), 700 m, leg. P. Lays (LM). Paratypes: Mindanao, South Cotabato Prov., Manobo Tasaday Forest Reserve, Mt. Tasaday, 1000-1100 m, 10-31. VII. 1990, leg. P. Lays, 1 female (LM); same locality, 3.II-10.III. 1991, leg. P. Lays, 1 female (LM); Minadanao, Kolambugan, 1 female (LM); Luzon, Lamao, 5 ex. (LM); Luzon, Mt. Isarog, 1 female (LM); Mindoro, Calapan, 2 ex. (LM); Mindoro, S. Theodoro, 2 ex. (LM); Mindanao, Maramag Prov., Potulin, 1700 m, 3.I.1991, leg. Bolm, 4 ex. (NHMB, 1 ex. LM).

Description. Black, anterior part of head, antennae except apical segments and legs fulvous.

Body short ovate. Head impunctate, lustrous, frontal tubercles triangular, delimited posteriorly with transverse impression, frons 1.5 times as wide as eye. Antennal segments $2-5$ proportions: 5-4-9-7. Prothorax 1.7 times as wide as long, evenly convex, lustrous, impunctate. Elytra 1.2 times as long as wide, lustrous, very finely, often indistinctly, punctate. Segment 1 of fore- and mid-tarsi not widened in male, same
segment of hind tarsi 3 times as long as $2+3$. Aedeagus (Fig. 24) almost parallel-sided, thick in lateral view.

Length of body 2.4-2.7 mm.
Remarks. Species seems like a member of the genus Desborderius Laboissiere, 1933 but its anterior coxal cavities are closed.

## Monolepta obscuricollis sp.nov.

Material examined. Holotype (male): Mindanao, S. Cotabato Prov., Manobo Tasaday Forest Reserve, Mt. Tasaday, 3.II-10.III.1991, leg. P. Lays (LM).

Description. Fulvous, prothorax piceous, elytra with stripe along lateral margin, more broad in central part, pygidium and underside black, apical antennal segments darkened.

Body ovate. Head very finely punctate, lustrous, frontal tubercles indistinct, frons 1.5 times as wide as eye. Antennae reach middle of elytra, segments $2-5$ proportions: $8-7-16-14$, preapical segments about 2-2.5 times as long as wide. Prothorax 1.6 times as wide as long, without depressions, lustrous, distinctly punctate. Elytra 1.4 times as long as wide, lustrous, distinctly although not strongly punctate. Segment 1 of anterior tarsus not widened in male, of hind tarsus 3 times as long as 2 and 3 together. Aedeagus - Fig. 25.

Length of body 3.0 mm .

## Monolepta notaticollis sp.nov.

Material examined. Holotype (male): S. Palawan, Singapan Basin, Tau't Batu Reservation ( $8^{\circ} 55^{\prime} \mathrm{N}$, $117^{\circ} 40^{\prime} \mathrm{E}$ ), $210 \mathrm{~m}, 11$. XII.1990-5.I. 1991, leg. P. Lays (LM).

Description. Black, head fulvous with darkened vertex, antennae with fulvous basal segments, prothorax fulvous with 4 poorly delimited pitchy spots: 2 in centre, 2 near rear angles; legs fulvous with darkened apices of tibiae and tarsi.

Body elongate ovate. Head impunctate, frontal tubercles small, convex, roundedtriangular, sharply delimited posteriorly with transverse impression, frons 1.3 times as wide as eye. Antennal segments $2-5$ proportions: 6-5-10-10. Prothorax 1.8 times as wide as long, evenly convex, lustrous, finely punctate. Elytra 1.6 times as long as wide, lustrous, with dense, distinct punctures. Segment 1 of fore-tarsi not widened, of hind tarsi twice as long as $2+3$. Aedeagus (Fig.26) thin and long, slightly narrowed apically, almost straight in lateral view.

Length of body 2.9 mm .

## Monolepta maramagi sp.nov.

Material examined. Holotype (female): Mindanao, 30 km W of Maramag, $1600 \mathrm{~m}, 28-30 . \mathrm{XII} .1990$, leg. Bolm (NHMB). Paratype: same locality, 1 female.

Description. Fulvous; mandibles, antennae except 3 basal segments, elytra, breast, last abdominal segment, tibiae and tarsi black.

Body elongate ovate. Head lustrous, impunctate, frontal tubercles ovate, sharply delimited posteriorly with impression, frons 1.8 times as wide as eye. Antennal segments $2-5$ proportions: $5-8-10-11$, preapical segments about $2.5-3$ times as long as wide. Prothorax 1.6 times as wide as long, lustrous, evenly convex, very finely punctate. Elytra 1.5 times as long as wide, lustrous, finely and not densely punctate. Segment 1 of hind tarsus almost 3 times as long as $2+3$.

Length of body $3.8-3.9 \mathrm{~mm}$.

## Monolepta luzonica sp.nov.

Material examined. Holotype (female): Luzon, Bayombong (LM). Paratypes; same locality, 1 male in poor state (LM); Luzon, Imugan, 1 male in poor state (LM); Luzon, Abra prov., Mt. Pultoc SE of Licuan, $17^{\circ} 34^{\prime} \mathrm{N}$, $120^{\circ} 55^{\prime} \mathrm{E}, 900 \mathrm{~m}, 29 . \mathrm{III} .2000$, leg. L. Dembicky, 1 ex. (NHMB).
Description. Fulvous; elytra, pygidium, metasternum and last abdominal sternite black.
Body ovate. Head lustrous, very finely punctate, frontal tubercles triangular, delimited posteriorly with impression, frons 1.2 times as wide as eye. Antennal segments proportions: 2-5 5-5-15-14. Prothorax 1.8 times as wide as long, evenly convex, lustrous, finely punctate, more densely so along anterior margin. Elytra 1.5 times as long as wide, finely and densely punctate, interspaces more or less microsculptured. Segment 1 of hind tarsus 3.5 times as long as $2+3$.

Length of body $4.3-4.5 \mathrm{~mm}$.

## Monolepta obscuripennis sp.nov.

Material examined. Holotype (female): Luzon; (LM).
Description. Fulvous, apical antennal segments, elytra and breast black.
Body elongate ovate. Head impunctate, lustrous, frontal tubercles ovate, delimited posteriorly, frons 1.4 times as wide as eye. Antennae reach middle of elytra, segments $2-5$ proportions: $5-5-8-8$, preapical segments about 2.5 times as long as wide. Prothorax 1.75 times as wide as long, evenly convex, lustrous, distinctly punctate. Elytra 1.45 times as long as wide, broadest at centre, lustrous, with comparatively fine but dense punctures; interspaces mostly not larger than punctures themselves. Segment 1 of hind tarsus 3 times as long as $2+3$.

Length of body 3.5 mm .

## Monolepta pulicaria sp.nov.

Material examined. Holotype (male): N. Palawan, Bahile, $50 \mathrm{~m}, 22 . X I I .1992$, leg. Bolm (NHMB). Paratypes: same locality, 7 ex. (NHMB, 2 ex. LM).
Description. Fulvous, antennae except 3-4 basal segments, all margins of elytra, underside and most parts of hind legs black.

Body elongate ovate. Head lustrous and impunctate, frontal tubercles rounded, feeble and poorly delimited, frons 1.5 times as wide as eye. Antennae reach a little
beyond centre of elytra, segments 2-5 proportions: 3-4-9-8, preapical segment about twice as long as wide. Prothorax 1.3 times as wide as long, without impressions, finely and sparsely punctate. Elytra 1.5 times as long as wide, moderately lustrous, with fine punctures. Segment 1 of fore-legs widened in male, hind tarsus almost as long as tibia, its first segment almost 4 times as long as $2+3$. Aedeagus - Fig. 27.

Length of males $2.4-2.6 \mathrm{~mm}$, of females $2.7-3.5 \mathrm{~mm}$.

## Monolepta fulvovittata sp.nov.

Material examined. Holotype (male): Mindanao, South Cotabato Prov., Manobo Tasaday Forest Reserve, Mt. Tasaday, 1000-1100 m, primary forest, X. 1993, leg P. Lays (LM). Paratypes: same locality, 3.II-10.III. 1991, leg. P. Lays, 2 females (LM); Siargao, Dapa, 1 female (LM); Luzon, Los Banos, (LM).

Description. Fulvous; head or at least vertex, antennae, scutellum, pygidium except base, metasternum, last abdominal sternite except base, basal half of femora, tibiae and tarsi black. Elytra black with large and broad central stripe fulvous (Fig. 3).

Body ovate, narrowed anteriorly. Head impunctate, frontal tubercles transverse, delimited at the rear with impression, frons 1.1 times as wide as eye. Antennal segments $2-5$ proportions: 6-8-16-16. Prothorax 1.65 times as wide as long, evenly convex, lustrous, finely and very sparsely punctate. Elytra 1.3 times as long as wide, very finely densely punctate. Segment 1 of hind-tarsus almost 3 times as long as $2+3$. Aedeagus (Fig. 28) thin and long, almost straight in lateral view.

Length of body $4.5-5 \mathrm{~mm}$.

## Monolepta martini sp.nov.

Material examined. Holotype: Mindanao, 30 km W of Maramag, $1600 \mathrm{~m}, 28-30 . X I I .1990$, leg. Bolm (NHMB). Paratype: same locality, 1 ex. (LM).
Description. Fulvous; head, breast, mid- and hind femora (except at apices) black, elytra black with broad fulvous band interrupted on suture and not touching side margin.

Body narrow, almost parallel-sided, only slightly widened posteriorly. Head lustrous, with very fine and sparse punctures, frontal tubercles triangular, feebly convex, but distinctly delimited at rear, frons 1.5 times as wide as eye. Antennal segments 2-5 proportions: 4-4-10-10. Prothorax 1.6 times as wide as long, almost parallel-sided, surface lustrous, feebly impressed on each side, indistinctly punctate. Elytra 1.35 times as long as wide, with dense and moderately strong punctures. Segment 1 of hind tarsus 2.7 times as long as $2+3$.

Length of body $2.6-2.7 \mathrm{~mm}$.
Derivatio nominis. This species is dedicated to Dr. M. Jacoby, an eminent specialist in the Chrysomelidae.

## Monolepta bipustulata sp.nov.

Material examined. Holotype: Mindanao, Momungan (LM). Paratype: same locality, 1 ex.

Description. Fulvous, elytra black with large fulvous spot in centre, breast black.
Body elongate-ovate. Head impunctate, lustrous, frontal tubercles triangular, flat, poorly delimited, frons 1.7 times as wide as eye. Antennal segments $2-5$ proportions: 3-4-11-11. Prothorax 1.7 times as wide as long, lustrous, without impressions, indistinctly punctate. Elytra 1.5 times as long as wide, lustrous, finely punctate.

Length of body $3.0-3.2 \mathrm{~mm}$.

## Monolepta foveopyga sp.nov.

Material examined. Holotype (male): Mindanao, Momungan (LM). Paratypes: same locality, 8 males, 17 females (LM).
Description. Male. Red-fulvous, scutellum and metasternum black, elytra black, each with 2 spots and extreme apex red-fulvous (Fig. 6), or elytra fulvous with sutural and lateral black stripes (Fig. 7).

Body ovate. Head impunctate, frontal tubercles triangular, frons 0.9 times as wide as eye. Antennal segments $2-5$ proportions: 6-6-19-19. Prothorax 1.6-1.7 times as wide as long, evenly convex or slightly impressed on each side, lustrous, finely but distinctly punctate. Elytra 1.2-1.25 times as long as wide, finely and densely punctate. Pygidium with 2 deep grooves divided by high central ridge. Segment 1 of fore-tarsus not widened, same segment of hind tarsus 3 times as long as $2+3$. Aedeagus with broad basal and narrow apical parts (Fig. 29), in lateral view slightly curved. Length of body 2.9-3.5 mm .

Female. Red-fulvous; scutellum, pygidium except base, metasternum, last abdominal sternite black except at base. Elytra black, each with 2 red fulvous spots near base and before apex; sometimes these spots connect, forming longitudinal stripe narrowing at centre (Figs 4, 5). Apical antennal segments darkened.

Frons 1.4 times as wide as eye. Antennal segments 2-5 proportions: 6-6-15-14. Prothorax 1.4 times as wide as long, elytra 1.5 times as long as wide. Pygidium simple, evenly convex.

Length of body 3-3.4 mm.

## Monolepta multinotata sp.nov.

Material examined. Holotype (female): Mindanao, Surigao (LM).
Description. Pale fulvous, each elytron with 18 or 19 black spots, partly connected (Fig. 8).

Body elongate ovate. Head impunctate, frontal tubercles triangular, poorly delimited, frons as wide as eye. Antennal segments $2-5$ proportions: 5-5-12-12. Prothorax 1.6 times as wide as long, evenly convex, lustrous, finely punctate. Elytra 1.5 times as long as wide, lustrous, indistinctly punctate. Segment 1 of mid-tarsi thin, almost twice as long as $2+3$, same segment of hind tarsi 3 times as long as $2+3$.

Length of body 4 mm .

## Monolepta nigristerna sp.nov.

Material examined. Holotype (male): Luzon, Ifugao Prov., Dalican, 1050 m, 3. VI. 1977, M. Sato leg. (LM), Paratypes: Luzon, Itoloc N. pr., E of Solsona, $18^{\circ} 05^{\prime} \mathrm{N}, 120^{\circ} 54^{\prime} \mathrm{E}, 1400 \mathrm{~m}, 31 . \mathrm{III} .2000$, leg. L. Dembicky, 2 ex. (NHBM, LM).
Description. Pale flavous, basal elytral band occupying about $1 / 10$ of elytral length and serrate at hind margin (Fig. 9), as well as basal part of epipleurae and metasternum, black.

Body elongate ovate. Head impunctate but microsculptured, matt; frontal tubercles transverse, poorly delimited to the rear, frons as wide as eye. Antennal segments 2-5 proportions: 5-6-13-12. Prothorax 1.7 times as wide as long, evenly convex, lustrous, finely and densely punctate. Elytra 1.5 times as long as wide, with fine, dense punctures. Segment 1 of fore-tarsi slightly widened in male, of hind tarsi 2.3 times as long as $2+3$. Aedeagus (Fig. 30) moderately narrowed apically, almost straight in lateral view.

Length of body 6.7 mm .

## Monolepta decorata sp.nov.

Material examined. Holotype (male): Mindanao, Tankulan (LM). Paratypes: same locality, 2 ex. (LM); N. Luzon, Ripong (LM); Luzon, Itoloc N. pr., E of Solsona, $18^{\circ} 05^{\prime} \mathrm{N}, 120^{\circ} 54^{\prime} \mathrm{E}, 1400 \mathrm{~m}, 31 . \mathrm{III} .2000$, leg. L. Dembicky, 3 ex. (NHMB, 1 ex. LM).
Description. Fulvous, metasternum piceous, elytra with piceous basal band, occupying 1/8-1/10 of elytra length and sometimes with apices indistinctly piceous (Figs 17-19).

Body ovate. Head impunctate, frontal tubercles triangular, delimited to the rear with impression, frons 1.1 times as wide as eye. Antennal segments $2-5$ proportions: 4-5-11-11. Prothorax 1.5 times as wide as long, evenly convex, lustrous, finely punctate. Elytra 1.4 times as long as wide, finely and moderately densely punctate. Segment 1 of fore-tarsus not widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus (Fig. 31) cuneiform, almost straight in lateral view.

Length of body $3-3.6 \mathrm{~mm}$.

## Monolepta brancuccii sp.nov.

Material examined. Holotype (male): Mindanao, 30 km W of Maramag, 28-30. XII. 1990, leg. Bolm (NHMB). Paratypes: same locality, 2 males (NHMB, LM).

Description. Head, antennae, prothorax, tibiae and tarsi fulvous, elytra red with basal third black (Fig. 10), labrum, scutellum, metathorax and femora except apices black, abdomen red.

Body elongate ovate. Head impunctate, frontal tubercles triangular, delimited to the rear with impression, frons as wide as eye. Antennal segments $2-5$ proportions: 5-6-16-15. Prothorax 1.5 times as wide as long, evenly convex, finely punctate, lustrous. Elytra 1.6 times as long as wide, lustrous, finely and densely punctate. Segment 1 of fore-tarsi widened in male, of hind tarsi almost 3 times as long as $2+3$. Aedeagus (Fig. 32) thin and long, conical, almost straight in lateral view.

Length of body 4.7-5.2 mm.

Derivatio nominis. This species is dedicated to my dear friend Dr. M. Brancucci (Basel).

## Monolepta staudingeri sp.nov.

Material examined. Holotype (male): Palawan, Cleopatra's Needle N.P., Tanabank, river valley, 300 m , 20-22.XII.1990, leg. Bolm (NHMB). Paratypes: same locality, 2 ex. (NHMB, LM).
Description. Fulvous, head, antennae except basal segments, scutellum, breast, tibiae and tarsi black; elytra with basal band, more or less prolonged along side margin anteriorly, postmedian band and extreme apex black; in female apex of pygidium black.

Body ovate. Head lustrous, very finely and sparsely punctate, frontal tubercles triangular, convex, sharply delimited at the rear, frons 1.2 times as wide as eye. Antennae reach middle of elytra. Antennal segments $2-5$ proportions: $6-7-14-15$, preapical segments about 2.5 times as long as wide. Prothorax 1.4 times as wide as long, evenly convex, lustrous, very finely and sparsely punctate. Elytra 1.4 times as long as wide, broadest near centre, with dense and moderately strong punctures, interspaces mostly smaller than punctures. Segment 1 of fore-tarsi not widened in male, same segment of hind tarsus about 3 times as long as $2+3$. Aedeagus - Fig. 33.

Length of body $4.6-5.2 \mathrm{~mm}$.
Derivatio nominis. This species is dedicated to memory of Dr. A. Staudinger.

## Monolepta boholensis sp.nov.

Material examined. Holotype (female): Bohol, Bilar, 3. VIII. 1974, leg. B. Tanaka (LM).
Description. Red with anterior part of head, antennae, abdomen and legs fulvous; elytra tricolored: narrow basal strip and apex red, postbasal and postmedian bands connected along side margin black, central part fulvous (Fig. 11).

Body ovate. Head impunctate, vertex with transverse microsculpture, frontal tubercles triangular, delimited to the rear with impression, frons 1.5 times as wide as eye. Antennal segments $2-5$ proportions: $4-6-10-11$. Prothorax 1.25 times as wide as long, lustrous, very finely punctate, with deep oblique impression on each side. Elytra 1.36 times as long as wide, lustrous, finely and densely punctate. Segment 1 of hind tarsus 3 times as long as $2+3$.

Length of body 4.6 mm .

## Monolepta fulvonigra sp.nov.

Material examined. Holotype (male): Luzon, Itoloc N. pr., E of Solsona, $18^{\circ} 05^{\prime} \mathrm{N}, 120^{\circ} 54^{\prime} \mathrm{E}, 1400 \mathrm{~m}$, 31.III.2000, leg. L. Dembicky (NHMB). Paratypes: same locality, 1 male, 1 female (NHMB, LM).

Description. Fulvous, antennae except 2 or 3 basal segments, apical third of elytra, pygidium and abdomen except first sternite black, tarsi and apices of tibiae more or less darkened.

Body narrow, elongate. Head very finely and sparsely punctate, moderately lustrous, with microsculpture, frontal tubercles very feeble, poorly delimited, frons 1.4 times as wide as eye. Antennae reach beyond centre of elytra. Antennal segments 2-5 proportions: 6-7-14-14, preapical segments about 3 times as long as wide. Prothorax 1.6 times as wide as long, broadest near base and feebly narrowed anteriorly, surface without depressions, lustrous, finely and very densely punctate. Elytra $1.8-1.85$ times as long as wide, broadest at shoulders and distinctly narrowed posteriorly, finely and densely punctate, punctures a little larger than on prothorax. Pygidium entirely covered by elytra and not visible from above or behind. Segment 1 of fore-tarsi distinctly widened in male. Segment 1 of hind tarsus almost 4 times as long as $2+3$. Aedeagus Fig. 35.

Length of male 3.3-3.6 mm, of female 4.0 mm .

## Monolepta sexpunctata sp.nov.

Material examined. Holotype (female): Mindanao, Tankulan (LM).
Description. Fulvous: labrum, scutellum and metasternum black, elytra with anterior half of lateral margin, a spot on humerus, another spot between humerus and suture and a spot beyond middle, black (Fig. 14).

Body elongate, very feebly widened posteriorly. Head impunctate, frontal tubercles subtriangular, divided from one another by interantennal elevation, poorly delimited to the rear with rounded groove, frons as wide as eye. Antennal segments $2-5$ proportions: 5-10-17-20. Prothorax 1.4 times as wide as long, with impression on each side, distinctly punctate and finely microsculptured. Elytra 1.7 times as long as wide, finely and densely punctate. Segment 1 of hind tarsus 4 times as long as $2+3$.

Length of body 5.8 mm .

## Monolepta suturata sp.nov.

Material examined. Holotype (male): Luzon, Mt. Banahao (LM).
Description. Fulvous, antennae except basal segments, sutural stripe on elytra (Fig. 15), pygidium and metasternum black.

Body narrow, parallel-sided. Head impunctate, microsculptured, frontal tubercles subtriangular, delimited to the rear with impression, frons twice as wide as eye. Antennal segments $2-5$ proportions: $8-7-14-14$. Prothorax 1.5 times as wide as long, evenly convex, lustrous, finely punctate. Elytra 1.5 times as long as wide, strongly and densely punctate. Segment 1 of fore-tarsi not widened in male, of hind tarsi about 3 times as long as $2+3$. Aedeagus - Fig. 36.

Length of body 2.5 mm .

## Monolepta collaris sp.nov.

Material examined. Holotype (male): Palawan, ex. Staudinger (LM).

Description. Pale flavous, labrum, sides of prothorax and breast black, margins of elytra except suture very narrowly black, apical antennal segments darkened.

Body ovate, widened posteriorly. Head sparsely punctate, with fine microsculpture, frontal tubercles triangular, sharply delimited to the rear, frons 1.1 times as wide as eye. Antennae reach centre of elytra. Antennal segments $2-5$ proportions: 5-6-12-13, preapical segments about 5 times as long as wide. Prothorax 1.5 times as wide as long, with distinct transverse depression on each side, lustrous, and densely punctate. Elytra 1.4 times as long as wide, broadest in apical quarter, lustrous, densely punctate, with narrow, partly convex interspaces. Segment 1 of anterior tarsus not widened in male. Segment 1 of hind tarsus 3 times as long as $2+3$. Aedeagus (immature) - Fig. 37.

Length of body 4.0 mm .

## Monolepta rubrofulva sp.nov.

Material examined. Holotype (male): N. Palawan, Bahile, 50 m, 22.XII.1992, leg. Bolm (NHMB). Paratypes: same locality, 3 ex. (NHMB, 1 ex. LM).

Description. Head, prothorax and scutellum red, antennae entirely black, elytra pale flavous, margined with black, more broadly on sides, femora fulvous, underside, tibiae and tarsi black.

Body elongate, parallel-sided. Head lustrous, impunctate, frontal tubercles triangular, sharply delimited to the rear, frons 2.5 times as wide as eye. Antennae reach apical slope of elytra. Antennal segments $2-5$ proportions: $6-5-20-23$, preapical segments $3-3.5$ times as long as wide. Prothorax 1.75 times as wide as long, broadest before centre, with transverse impression not interrupted at centre, lustrous, finely punctate. Elytra 1.7 times as long as wide, lustrous, finely and densely punctate. Segment 1 of fore-tarsus slightly widened in male, segment 1 of hind tarsus 1.5 times as long as $2+3$. Aedeagus - Fig. 38.

Length of body $3.2-3.5 \mathrm{~mm}$.

## Monolepta marginalis sp.nov.

Material examined. Holotype (male): Mindanao, Pt. Bango (LM). Paratypes: same locality, 10 ex. (LM); Luzon, M. Banahao, 1 male (LM).

Description. Fulvous, narrow basal margin of elytra and base of epipleurae black. Specimen from Luzon has all femora darkened beneath.

Body elongate ovate. Head practically impunctate, frontal tubercles triangular, feebly delimited to the rear, frons 1.3 times as wide as eye. Antennal segments $2-5$ proportions: 6-7-20-20, which means that segment 4 is about 1.5 times as long as $2+3$. Prothorax 2 times as wide as long, without depressions, finely and densely punctate. Elytra 1.3 times as long as wide, finely and very densely punctate. Segment 1 of foretarsi feebly widened in male, of hind tarsi 3 times as long as $2+3$. Aedeagus (Fig. 40) with narrowed apical part, straight in lateral view.

Length of body $5.4-6.5 \mathrm{~mm}$.

## Monolepta beeneni sp.nov.

Material examined. Holotype (male): Luzon, Buranen (LM). Paratypes: same locality, 2 ex. (LM); Luzon, Mt. Isarog, 1 ex. (LM); Luzon, Mt. Banahao, 1 ex. (LM); Luzon, Subuagrn, 1 ex. (LM); Luzon, Paete, 1 ex. (LM); SE Luzon, San Miguel, 1 ex. (LM); SE Luzon, Vivac, 1 ex. (LM); N. Luzon, Ripong, 2 ex. (LM); Mindanao, Surigao, 1 ex. (LM); Mindanao, Tankulan, 1 ex. (LM); Leyte, 1 ex. (LM); Polillo, 1 ex. (LM); Philippines, 1 ex. (LM0.
Description. Fulvous, narrow basal margin of elytra, base of epipleurae and metasternum black.

Body elongate ovate. Head virtually impunctate, frontal tubercle triangular, feebly delimited to the rear, frons 0.9 times as wide as eye. Antennal segments $2-5$ proportions: $5-7-13-14$, meaning that segment 4 is about as long as $2+3$. Prothorax 1.7 times as wide as long, without depressions, finely and densely punctate. Elytra 1.4 times as long as wide, finely and densely punctate. Segment 1 of fore-tarsi feebly widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus (Fig. 41) almost parallel-sided, straight in lateral view.

Length of body $5.6-6.3 \mathrm{~mm}$.
Derivatio nominis. This species is dedicated to my friend Mr. Ron Beenen, a specialist in the Galerucinae.

## Monolepta sculpticollis sp.nov.

Material examined. Holotype (male): South Luzon, Mt. Isarog (LM). Paratype: Luzon, Mt. Banahao, 1 ex. (LM).
Description. Entirely fulvous.
Body elongate ovate. Head impunctate, frontal tubercles triangular, delimited to the rear with transverse impression, frons 1.5 times as wide as eye. Antennal segments 2-5 proportions: 5-6-14-15. Prothorax 1.4 times as wide as long, surface very uneven, roughly sculptured, with 3 deep impressions: one in centre, beyond anterior margin, the other two on the sides, obliquely placed. Elytra 1.45 times as long as wide, lustrous, finely punctate. Segment 1 of fore-tarsi not widened in male, of hind tarsi twice as long as $2+3$. Aedeagus (Fig. 42) comparatively short, conical, with acute apex.

Length of body 4.2-4.5 mm.

## Monolepta laysi fulvescens subsp.nov.

Material examined. Holotype (male): Luzon, Mt. Makiling, 12. IV. 1984, leg. G. Hangay (LM).
Description. Morphologically identical with M. laysi L. Medvedev, 2002, including structure of antennae and form of aedeagus. It differs in entirely fulvous color, the antennae are also of the same colour as the body. Nominative subspecies has red body with pale flavous antennae and is distributed on Mindanao.

Length of body 5.3 mm .

## Monolepta posthumeralis sp.nov.

Material examined. Holotype (male): Mindanao, Surigao (LM).
Description. Entirely fulvous.
Body elongate ovate, more broad posteriorly. Head matt, impunctate, microsculptured, frontal tubercles triangular, delimited to the rear with transverse impression, frons 1.4 times as wide as eye. Antennae absent. Prothorax 1.7 times as wide as long, finely and very densely punctate, matt, with transverse serrate impression, not interrupted in centre. Elytra 1.5 times as long as wide, matt, microscopically rugose, without distinct punctures, with subquadrangular impression in humeral area, divided into two triangles by high, oblique ridge. Aedeagus (Fig. 44) asymmetrical, with long apical process and black hook at orifice.

Length of body 5.5 mm .

## Monolepta posthumeralis samarensis subsp.nov.

Material examined. Holotype (male): Samar, Catbalogan (LM).
Description. Differs from nominative form in secondary sexual characters of male.
Entirely fulvous. Antennal segments $2-5$ proportions: 6-10-20-20. Serrate transverse impression of prothorax interrupted in centre. Elytra with ovate shallow impression within humerus but lacking oblique ridge. Aedeagus same as in nominative subspecies.

Length of body 5.3 mm .

## Monolepta foveipennis sp.nov.

Material examined. Holotype (male): Luzon, Manila (LM). Paratypes: same locality, 14 males, 16 females (LM); Luzon, Los Banos, 3 males (LM); Mindanao, Pt. Bango, 1 male (LM); Siargao, Dapa, 3 males, 1 female (LM); Montalban, 3 males (LM); Samar, Catbalogan, 2 males (LM); Panaon, 1 male (LM).

Description. Fulvous, labrum and metasternum black, apical antennal segments more or less darkened.

Body elongate ovate. Head very finely punctate, lustrous, frontal tubercles triangular, delimited to the rear with impression, frons 1.7 times as wide as eye. Antennal segments $2-5$ proportions: 6-10-13-12. Prothorax 1.3 times as wide as long, evenly convex, lustrous, very finely punctate. Elytra 1.6 times as long as wide, lustrous, finely and very densely punctate; in male postscutellar area convex, with small ovate groove on each side of suture (Fig. 20). Segment 1 of fore-tarsi not widened in male, of hind tarsi 1.5 times as long as $2+3$. Aedeagus - Fig. 45.

Length of body 4.4-4.9 mm.

## Monolepta armatipennis sp.nov.

Material examined. Holotype (male): Luzon, Lamao (LM). Paratype: Basilan, 1 male (LM).

Description. Entirely fulvous.
Body elongate ovate. Head impunctate, lustrous, frontal tubercles triangular, indistinctly divided, delimited to the rear with transverse impression, frons 1.2 times as wide as eye. Antennal segments $2-5$ proportions: 7-13-20-23. Prothorax 1.25 times as wide as long, lustrous, impunctate, obliquely impressed on each side. Elytra 1.4 times as long as wide, very finely punctate, in male postscutellar area with drop-like impression delimited at the front with tubercle (Fig. 21). Segment 1 of hind tarsus 3 times as long as $2+3$. Last abdominal sternite longitudinally impressed and ridged along central line.

Length of body $4.5-4.9 \mathrm{~mm}$.

## Monolepta nigricapitis sp.nov.

Material examined. Holotype (male): Palawan, Port Barton, 150 m, 14-18.XII. 1990, leg. Bolm (NHMB). Paratypes: same locality, 8 ex. (NHMB, 2 ex. LM); Palawan, Cleopatra's Needle N. P., Tanabank, river valley, $300 \mathrm{~m}, 20-22$. XII. 1990, leg. Bolm, 5 ex. (NHMB, 1 ex. LM).
Description. Fulvous, head and inner margin of epipleurae black.
Body ovate. Head lustrous, impunctate, frontal tubercles triangular, distinctly delimited to the rear, frons as wide as eye. Antennae almost reach centre of elytra. Antennal segments $2-5$ proportions: 5-6-12-11, preapical segments about 4 times as long as wide. Prothorax 1.5 times as wide as long, with impression on each side, lustrous, distinctly punctate. Elytra 1.4 times as long as wide, lustrous, very densely punctate, with narrow interspaces. Segment 1 of anterior tarsi not widened in male, same segment of hind tarsus 3 times as long as $2+3$. Aedeagus - Fig. 46.

Length of body 3.3-4.8 mm.

## Monolepta tarsata sp.nov.

Material examined. Holotype (male): Mindanao, Pt. Bango (LM). Paratypes: same locality, 3 males, 3 females (LM).
Description. Fulvous with black labrum.
Body ovate, very convex. Head impunctate, frontal tubercles triangular, delimited to the rear with impression, frons 1.1 times as wide as eye. Antennal segments 2-5 proportions: 6-5-21-20. Prothorax 1.5 times as long as wide, evenly convex, lustrous, finely and sparsely punctate. Elytra 1.4 times as long as wide, finely and very densely punctate, in male slightly impressed on suture behind scutellum. Segment 1 of foretarsus very strongly widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus (Fig. 47) comparatively narrow, conical, straight in lateral view.

Length of body 5.1-5.4 mm.

## Monolepta labrata sp.nov.

Material examined. Holotype (male): Mindanao, 30 km W of Maramag, $1600 \mathrm{~m}, 28-30$. XII.1990, leg. Bolm (NHMB). Paratypes: SW Panay, 8 km E of Bontol, $200 \mathrm{~m}, 10-11 . X I I .1990$, leg. Bolm, 2 ex. (NHMB, LM).

Description. Entirely fulvous, only labrum, apical half of 11th antennal segment and inner margin of epipleurae in basal part black.

Body ovate. Head lustrous, impunctate, frontal tubercles triangular, distinctly delimited to the rear, frons 1.4 times as wide as eye. Antennal segments $2-5$ proportions: $5-5-11-11$, preapical segments 3.5 times as long as wide. Prothorax $1.4-1.5$ times as wide as long, with feeble impression on each side, lustrous, finely punctate. Elytra 1.5 times as long as wide, lustrous, finely punctate. Segment 1 of anterior tarsus not widened in male, same segment of hind tarsus 3 times as long as $2+3$. Aedeagus cuneiform, but slightly widened on apex (Fig. 48).

Length of body 3.7-4.2 mm.

## Monolepta proxima sp.nov.

Material examined. Holotype (male): Mindanao, 30 km W of Maramag, $1600 \mathrm{~m}, 28-30 . \mathrm{XII} .1990$, leg. Bolm (NHMB). Paratypes: same locality, 5 ex. (NHMB, 2 ex. LM).

Description. Fulvous with black labrum.
Body ovate. Head lustrous, with a few punctures near eyes, frontal tubercles transverse, distinctly delimited to the rear, frons 1.2 times as wide as eye. Antennae reach middle of elytra Antennal segments 2-5 proportions: 7-5-9-14, preapical segments about 4-5 times as long as wide. Prothorax 1.5 times as wide as long, lustrous, with feeble impressions, finely and densely punctate. Elytra 1.5-1.6 times as long as wide, lustrous, with fine and dense punctures. Segment 1 of anterior tarsus feebly widened in male, segment 1 of hind tarsus 3 times as long as $2+3$. Aedeagus - Fig. 49.

Length of body 4.5-5.2 mm.

## Monolepta elgae sp.nov.

Material examined. Holotype (male): Luzon, Bulbalan (LM).
Description. Fulvous, labrum and antennal segments 4-11 black.
Body elongate, slightly widened posteriorly. Head impunctate, frontal tubercles triangular, delimited to the rear with transverse impression, frons 1.25 times as wide as eye. Antennal segments $2-5$ proportions: 6-6-14-14. Prothorax 1.5 times as wide as long, almost impunctate, with transverse impression interrupted at centre. Elytra 1.8 times as long as wide, with fine, dense punctures. Segment 1 of fore-tarsi not widened in male, of hind tarsus 4 times as long as $2+3$. Aedeagus (Fig. 50) moderately broad with narrow apical part, divided at extreme apex, underside with longitudinal groove on broad part, in lateral view apical part strongly curved downwards.

Length of body 4.7 mm .
Derivatio nominis. This species is dedicated to my wife Elga.

## Monolepta obscuricornis sp.nov.

Material examined. Holotype (male): Bohol (LM). Paratype: Panay, 10 km E Sibalom, 100 m, 10. XII. 1990, leg. Bolm, 1 ex. (NHMB).

Description. Fulvous, labrum and antennae black.
Body elongate, widened posteriorly. Head impunctate, frontal tubercles triangular, delimited to the rear with impression, frons 1.35 times as wide as eye. Antennal segments $2-5$ proportions: 6-7-14-18. Prothorax 1.7 times as wide as long, almost impunctate, with shallow depression on each side. Elytra 1.5 times as long as wide, distinctly and very densely punctate. Segment 1 of fore-tarsi slightly widened in male, of hind tarsi 3 times as long as $2+3$. Aedeagus (Fig. 51) thick and broad, narrowed apically, underside with broad longitudinal elevation narrowed apically, in lateral view curved.

Length of body 4.4 mm .

## Monolepta bakeri sp.nov.

Material examined. Holotype (male): Mindanao, Pt. Bango (LM).
Description. Fulvous, antennal segments 2 and 3 pitchy, 4-11 black.
Body elongate ovate. Head impunctate, with triangular frontal tubercles delimited to the rear with impression, frons 1.7 times as wide as eye. Antennal segments 2-5 proportions: 4-4-20-21. Prothorax 1.7 times as wide as long, finely punctate, with transverse impression almost interrupted at centre. Elytra 1.35 times as long as wide, strongly and densely punctate. Segment 1 of fore-tarsus not widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus moderately narrowed to apex, underside with longitudinal impressions: narrow sub-basally and broad subapically; curved in lateral view (Fig. 52).

Length of body 5.2 mm .
Derivatio nominis. This species is dedicated to Dr. Baker, a well-known specialist in the Coleoptera. of the Philippines

## Monolepta roseofulva sp.nov.

Material examined. Holotype (male): Palawan, Port Barton, 150 m, 14-18.XII. 1990, leg. Bolm (NHMB). Paratypes: same locality, 25 ex. (NHMB, 5 ex. LM); N. Palawan, Bahile, 50 m, 22.XII.1992, leg. Bolm, 1 ex. (NHMB); Palawan, Cleopatra's Needle N. P., Tanabank, river valley, 300 m, 20-22.XII.1990, leg. Bolm, 1 ex. (NHMB).

Description. Red, elytra and abdomen pale flavous, antennae black with fulvous basal segments, tibiae and tarsi usually darkened, sometimes basal quarter of elytra red.

Body robust, widened to apex, strongly convex, especially beyond centre. Head lustrous, impunctate, frontal tubercles triangular, delimited to the rear with shallow impression, frons as wide as eye. Antennae reach beyond centre of elytra. Antennal segments $2-5$ proportions: 5-4-17-16. Prothorax 1.75 times as wide as long, lustrous, finely punctate, lacking impressions. Elytra 1.4-1.5 times as long as wide, broadest before apex, broadly rounded on apex, convex, lustrous, finely and densely punctate. Segment 1 of anterior tarsus distinctly widened in male. Hind tibiae curved, with long spur, segment 1 of hind tarsus 3 times as long as $2+3$. Aedeagus (Fig. 53) longitudinally grooved on underside. Spermatheca - Fig. 77.

Length of body $4.3-5.2 \mathrm{~mm}$.

## Monolepta tuberculata sp.nov.

Material examined. Holotype (male): Mindanao, Surigao (LM).
Description. Entirely red.
Body ovate. Head impunctate, frontal tubercles transverse, delimited to the rear with impression, frons 1.75 times as wide as eye. Proportions of antennal segments 2-4 (only 4 segments are present ): 6-6-14. Prothorax 1.8 times as wide as long, evenly convex, lustrous, very finely, partly indistinctly punctate. Elytra 1.35 times as long as wide, finely and rather densely punctate. Pygidium with tubercles before apex. Segment 1 of fore-tarsus not widened in male, of hind tarsus about 3 times as long as $2+3$. Aedeagus short and broad (Fig. 54).

Length of body 4.3 mm .

## Monolepta biimpressa sp.nov.

Material examined. Holotype (male): Mindanao, Pt. Bango (LM). Paratypes: same locality, 7 ex. (LM).
Description. Entirely fulvous.
Body ovate. Head impunctate with triangular frontal tubercles delimited to the rear with transverse impression, frons 1.4 times as wide as eye. Antennal segments 2-5 proportions: 4-5-11-11. Prothorax 1.7 times as wide as long, evenly convex, very finely punctate, lustrous. Elytra 1.3 times as long as wide, lustrous, with fine, dense punctures. Pygidium incised on apex, with two very deep round grooves divided by ridge or elevation and small groove near anterior margin. Segment 1 of fore-tarsus not widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus (Fig. 55) feebly narrowed anteriorly, almost parallel-sided, straight in lateral view.

Length of body $3.3-3.8 \mathrm{~mm}$.

## Monolepta impressipyga sp.nov.

Material examined. Holotype (male): S. Palawan, leg. Waterstradt (LM).
Description. Entirely fulvous.
Body ovate. Head impunctate, frontal tubercles triangular, delimited to the rear with transverse impression, frons as wide as eye. Antennal segments $2-5$ proportions: 5-4-11-13. Prothorax 1.4 times as wide as long, evenly convex, lustrous, with extremely fine and sparse punctures. Elytra 1.3 times as long as wide, lustrous, finely and densely punctate. Pygidium incised at apex, with large and deep impression at centre. Segment 1 of fore-tarsus not widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus (Fig. 56) with broad basal and far more narrow apical half, straight in lateral view.

Length of body 3.3 mm .

## Monolepta epipleuralis sp.nov.


#### Abstract

Material examined. Holotype (male): Mindanao, Momungan (LM). Paratypes: same locality, 37 ex. (LM); Mindanao, Kolambugan, 29 ex. (LM); Mindanao, Pt. Bango, 4 ex. (LM); Mindanao, Surigao, 1 ex. (LM); Luzon, Los Banos, 3 ex. (LM); Luzon, Mt. Banahao, 2 ex. (LM); Luzon, Balbalan, 1 ex. (LM); Luzon, Imugan, 1 ex. (LM); Panaon, 1 ex. (LM); Philippines, 1 ex. (LM); Mindanao, 30 km W of Maramag, 1600 m , 28-30.XII.1990, leg. Bolm, 4 ex. (NHMB, 1 ex. LM).


Description. Fulvous, inner margin of epipleurae black, apical antennal segments more or less darkened.

Body ovate, broader beyond centre. Head impunctate, frontal tubercles not developed, transverse impression between frons and vertex absent, frons 1.2 times as wide as eye. Antennal segments 2-5 proportions: 4-4-7-7. Prothorax 1.8 times as wide as long, side margins rounded, surface very finely, sometimes indistinctly punctate, lustrous. Elytra 1.3 times as long as wide, impunctate or extremely finely punctate, lustrous. Segment 1 of fore-tarsi not widened in male, of hind tarsi about 3 times as long as $2+3$. Last abdominal sternite with round groove in male. Aedeagus almost parallelsided, with rounded apex (Fig. 57), apical part recurved in lateral view, underside with small impression before apex.

Length of body 2.4-2.8 mm.

## Monolepta parallela sp.nov.

Material examined. Holotype (male): N. Luzon, Trinidad (LM).
Description. Fulvous, apical antennal segments darkened, breast black.
Body narrow, parallel-sided. Head impunctate, frontal tubercles feeble, but delimited to the rear with impression, frons 1.5 times as wide as eye. Antennal segments 2 and 3 short and equal, 4 as long as $2+3$. Prothorax 1.5 times as wide as long, evenly convex, lustrous, finely and sparsely punctate. Elytra 1.5 times as long as wide, lustrous, sparsely punctate, punctures distinctly larger than on prothorax. Segment 1 of hind tarsus 2.2 times as long as segments $2+3$. Aedeagus (Fig. 58) comparatively short, almost parallel-sided with rounded apex, in lateral view thin and almost straight, not thickened near base.

Length of body 2 mm .

## Monolepta decolora sp.nov.

Material examined. Holotype (male): Mindanao, Momungan (LM).
Description. Entirely fulvous. Body ovate, broader posteriorly. Head impunctate, frontal tubercles triangular, delimited to the rear with impression, frons 1.5 times as wide as eye. Antennal segments $2-5$ proportions: 4-4-9-9. Prothorax 1.4 times as wide as long, evenly convex, finely and sparsely punctate. Elytra 1.3 times as long as wide, lustrous, finely punctate, but punctures more dense and distinct, as compared with prothorax. Segment 1 of fore-tarsi moderately widened in male, of hind tarsi about 3 times as long as $2+3$. Aedeagus (Fig. 59) thin and very long (about 12 times as long as wide), with subtruncate apex, slightly curved and very thin in lateral view.

Length of body 3.7 mm .

## Monolepta mindanaica sp.nov.

Material examined. Holotype (male): Mindanao, Pt. Bango (LM). Paratypes: same locality, 65 ex. (LM); Mindanao, Tankulan, 4 ex. (LM).

Description. Entirely fulvous, only antennal segments 5-11 more or less darkened.
Body elongate ovate, broader posteriorly. Head impunctate, frontal tubercles feeble, triangular, delimited to the rear with impression, frons 1.5 times as wide as eye. Antennal segments 2 and 3 short, 3 a little shorter than 2; segment 4 is 1.5 times as long as $2+3$. Prothorax 1.6 times as wide as long, evenly convex, and finely punctate. Elytra 1.35-1.4 times as long as wide, with moderately dense and fine punctures, which are, however, larger than on prothorax. Segment 1 of hind tarsus twice as long as segments $2+3$. Aedeagus (Fig. 60) thin and long, parallel-sided, with obtuse triangular apex, in lateral view almost straight and not thickened near base, underside more or less longitudinally concave, with central ridge in apical third.

Length of body 2.8-4.1 mm.

## Monolepta rosinae sp.nov.

Material examined. Holotype (male): Mindanao, Momungan (LM). Paratypes: same locality, 2 ex. (LM).
Description. Entirely reddish-fulvous or fulvous.
Body ovate. Head impunctate, frontal tubercles triangular, delimited to the rear with transverse impression, frons 1.9 times as wide as eye. Antennal segments 2-5 proportions: 5-5-13-13. Prothorax 1.5 times as wide as long, evenly convex, finely punctate. Elytra 1.35 times as long as wide, distinctly and rather densely punctate. Segment 1 of hind tarsi about 3 times as long as $2+3$. Aedeagus (Fig. 61) comparatively short and thick, straight in lateral view.

Length of body $3.6-4 \mathrm{~mm}$.

## Monolepta sargaonica sp.nov.

Material examined. Holotype (male): Sargao, Cabuntug (LM). Paratypes: same locality, 10 ex. (LM).
Description. Entirely fulvous.
Body elongate ovate. Head impunctate, frontal tubercles triangular, delimited with impression, vertex with groove behind impression, frons 1.35 times as wide as eye. Antennal segments $2-5$ proportions: 6-8-13-13. Prothorax $1.25-1.4$ times as wide as long, evenly convex, feebly cordiform, broadest in anterior quarter and slightly emarginate before acute rear angles, impunctate and lustrous. Elytra 1.3 times as long as wide, lustrous, indistinctly punctate, in male slightly impressed on suture behind scutellum. Segment 1 of fore-tarsi feebly thickened in male, of hind tarsi 2 times as long as $2+3$. Aedeagus (Fig. 62) almost parallel-sided, straight in lateral view.

Length of body 4.1-4.8 mm.

## Monolepta kimotoi sp.nov.

Material examined. Holotype (male): Luzon, Mt. Banahao (LM). Paratypes: same locality, 2 ex. (LM).
Description. Entirely fulvous.
Body elongate ovate. Head impunctate, frontal tubercles triangular, delimited to the rear with transverse impression, frons 1.8 times as wide as eye. Antennal segments 2-5 proportions: 6-6-13-14. Prothorax 1.5 times as wide as long, evenly convex, lustrous, finely punctate. Elytra 1.55 times as long as wide, lustrous, distinctly and rather densely punctate. Segment 1 of fore-tarsi not widened in male, of hind tarsi 3 times as long as $2+3$. Aedeagus (Fig. 63) in basal half parallel-sided, in apical half cuneiform.

Length of body $4-4.7 \mathrm{~mm}$, height at level of hind coxae 1.6 mm .
Derivatio nominis. This species is dedicated to Dr. S. Kimoto, a well known specialist in the Oriental Chrysomelidae.

## Monolepta fulvescens sp.nov.

Material examined. Holotype (male): Mindanao, Surigao (LM). Paratypes: same locality, 2 ex. (LM).
Description. Entirely fulvous, prothorax slightly paler than elytra.
Body elongate ovate, at its broadest posteriorly, strongly convex. Head impunctate, finely microsculptured, frontal tubercles triangular but not sharply delimited posteriorly, frons 1.6 times as wide as eye. Antennal segments $2-5$ proportions: 6-5-17-20. Prothorax 1.45 times as wide as long, evenly convex, lustrous, finely punctate. Elytra 1.3 times as long as wide, with fine but comparatively dense punctures. Segment 1 of foretarsi moderately widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus (Fig. 64) cuneiform, almost straight in lateral view.

Length of body 4.4-5.2 mm, height at level of hind coxae 3 mm .

## Monolepta wagneri sp.nov.

Material examined. Holotype (male): Mindanao, Momungan (LM). Paratypes: same locality, 29 ex. (LM); Luzon, Mt. Banahao, 1 ex. (LM).

Description. Fulvous, apical antennal segments more or less darkened.
Body elongate, moderately widened posteriorly. Head impunctate, frontal tubercles triangular, delimited at the rear with impression, frons 1.3 times as wide as eye. Antennal segments $2-5$ proportions: 4-4-8-8. Prothorax 1.6 times as wide as long, lustrous, finely and sparsely punctate, with oblique impression on each side. Elytra 1.4 times as long as wide, lustrous, finely punctate. Segment 1 of fore-tarsus not widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus practically parallel-sided (Fig. 65).

Length $2.2-2.7 \mathrm{~mm}$.
Derivatio nominis. This species is dedicated to Dr. T. Wagner, a well known specialist in the tribe Monoleptini.

## Monolepta schultzei sp.nov.

Material examined. Holotype (male): N. Palawan, Bahile, 50 m, 22.XII.1992, leg. Bolm (NHMB). Paratypes: same locality, 5 ex. (NHMB, 1 ex. LM); Palawan, Port Barton, 150 m, 14-18.XII. 1990, leg. Bolm, 9 ex. (NHMB, 2 ex. LM).

Description. Entirely fulvous with inner margin of epipleurae black; apical antennal segment more or less darkened.

Body ovate. Head lustrous, very finely and sparsely punctate, frontal tubercles triangular, distinctly delimited at the rear, frons 1.8-2 times as wide as eye. Antennal segments $2-5$ proportions: $5-5-11-10$, preapical segments $3.5-4$ times as long as wide. Prothorax 1.6 times as wide as long, impressed on each side, lustrous, distinctly but not strongly punctate. Elytra 1.25 times as long as wide, lustrous, distinctly punctate. Segment 1 of anterior tarsus not widened in male, segment 1 of hind tarsus 2.3 times as long as $2+3$. Aedeagus - Fig. 66.

Length of body $2.7-3.5 \mathrm{~mm}$.
Derivatio nominis. This species is dedicated to Dr. W. Schultze, a well-known investigator of the Coleoptera of the Philippines.

## Monolepta flavescens sp.nov.

Material examined. Holotype (male): Mindanao, Kalumbugan (LM). Paratype: same locality, 1 ex. (LM).
Description. Entirely fulvous.
Body elongate ovate. Head impunctate, frontal tubercles triangular, delimited at the rear with impression, frons 1.1 times as wide as eye. Antennal segments $2-5$ proportions: 4-5-16-18. Prothorax 1.7 times as wide as long, surface with transverse impression interrupted at centre, finely punctate. Elytra 1.55 times as long as wide, with moderately strong but dense punctures. Segment 1 of fore-tarsi not widened in male, of hind tarsi about 2.3 times as long as wide. Aedeagus (Fig. 67) comparatively short, narrowed to apex, arcuate in lateral view.

Length of body $4.5-4.6 \mathrm{~mm}$.

## Monolepta sprecherae sp.nov.

Material examined. Holotype (male): Mindoro, S. Theodoro (LM). Paratype: same locality, 1 ex. (LM).
Description. Entirely fulvous, only apical antennal segments slightly darkened.
Body elongate ovate. Head impunctate, frontal tubercles triangular, delimited at the rear with impression, frons 1.2 times as wide as eye. Antennal segments 2-5 proportions: 6-8-15-17. Prothorax 1.35 times as wide as long, lustrous, finely punctate, with oblique impression on each side. Elytra 1.6 times as long as wide, lustrous, finely and densely punctate. Segment 1 of fore-tarsus not widened in male, of hind tarsus about 3 times as long as $2+3$. Aedeagus (Fig. 68) short and thick, narrowed to apex, arcuate in lateral view.

Length of body 4.8-5.1 mm.

Derivatio nominis. This species is dedicated to Dr. E. Sprecher, a specialist in Oriental Chrysomelidae and Curator of the NHMB Frey collection.

## Monolepta rugosipennis sp.nov.

Material examined. Holotype (male): Mindanao, 30 km W of Maramag, $1600 \mathrm{~m}, 28-30 . \mathrm{XII} .1990$, leg. Bolm (NHMB). Paratypes: same locality, 2 ex. (NHMB, LM).
Description. Entirely fulvous, elytra a little paler than prothorax.
Body elongate ovate. Head finely punctate and microsculptured, frontal tubercles triangular, distinctly delimited at the rear, frons 1.5 times as wide as eye. Antennae reach beyond centre of elytra. Antennal segments $2-5$ proportions: 6-5-20-20, preapical segments about 4 times as long as wide. Prothorax 1.1 times as wide as long, with feeble impression on each side, matt, very densely punctate, with interspaces very narrow, elevated, more or less rugose. Segment 1 of anterior tarsus not widened in male, of hind tarsus 3 times as wide as $2+3$. Aedeagus - Fig. 69, spermatheca - Fig. 78.

Length of body $5.3-6.0 \mathrm{~mm}$.

## Monolepta tasadayca sp.nov.

Material examined. Holotype (male): Mindanao, S. Cotabato Prov., Manobo Tasaday Forest Reserve, Mt. Tasaday, 3.II-10.III.1991, leg. P. Lays (LM).
Description. Entirely fulvous. Morphologically very similar to preceding species, differs in only a few characters.

Frons narrow, 0.85 times as wide as eye. Antennal segments $2-5$ proportions: $8-10-20-20$, preapical segments about 5 times as long as wide. Prothorax with distinct, more or less Y-like impression. Aedeagus - Fig. 70.

Length of body 6.8 mm .

## Monolepta vulgatissima sp.nov.

Material examined. Holotype (male): Mindanao, Tankulan (LM). Paratypes: same locality, 7 ex. (LM); Mindanao, Momungan, 3 ex. (LM); Mindanao, Pt. Bango, 1 ex. (LM); Luzon, Imugan, 44 ex. (LM); Luzon, Limay, 4 ex. (LM); Luzon, Banahao, 1 ex. (LM).

Description. Entirely fulvous.
Body ovate or elongate ovate. Head impunctate, frontal tubercles triangular, delimited to the rear with impression, frons 1.1 times as wide as eye. Antennal segments $2-5$ proportions: 6-5-12-12. Prothorax 1.5 times as wide as long, lustrous, with shallow impression on each side, finely or indistinctly punctate. Elytra 1.4 times as long as wide, with fine, dense punctures, less lustrous than prothorax. Segment 1 of fore-tarsus not widened in male, of hind tarsus 4 times as long as $2+3$. Aedeagus (Fig. 71) sharply cuneiform, almost straight in lateral view.

Length of body $3.6-4.5 \mathrm{~mm}$.

## Monolepta joliveti sp.nov.

Material examined. Holotype (male): Mindanao, Pt. Bango (LM). Paratypes: same locality, 2 ex. (LM).
Description. Entirely fulvous.
Body ovate. Head impunctate, frontal tubercles transverse, sharply delimited at the rear, frons as wide as eye. Antennal segments $2-5$ proportions: $5-5-15-15$. Prothorax 1.4 times as wide as long, lustrous, distinctly but not strongly punctate, with transverse impression on each side. Elytra 1.4 times as long as wide, with moderately strong and dense punctures. Segment 1 of fore-tarsus not widened in male, of hind tarsus 3 times as long as $2+3$. Aedeagus comparatively short and broad, narrowed to apex, slightly curved in lateral view (Fig. 72).

Length of body $4.6-5.1 \mathrm{~mm}$.
Derivatio nominis. This species is dedicated to Dr. P. Jolivet, a well-known specialist in the Chrysomelidae.

## Monolepta basilana sp.nov.

Material examined. Holotype (male): Basilan (LM). Paratypes: same locality, 2 ex. (LM).
Description. Entirely fulvous.
Body elongate ovate. Head impunctate, frontal tubercles triangular, sharply delimited at the rear, frons as wide as eye. Antennal segments $2-5$ proportions: 5-5-12-12. Prothorax 1.5 times as wide as long, moderately lustrous, distinctly punctate, with transverse impression on each side. Elytra 1.4 times as long as wide, strongly and densely punctate. Segment 1 of fore-tarsi not widened in male, of hind tarsus about 3 times as long as $2+3$. Aedeagus (Fig. 73) parallel-sided with subtruncate apex, almost straight in lateral view.

Length of body 3.8-4 mm.

## Monolepta weisei sp.nov.

Material examined. Holotype (male): Luzon, Mt. Banahao (LM). Paratypes: same locality, 3 ex. (LM); Luzon, Mt. Polis, 3 ex. (LM); Samar, Catbalogan, 1 ex. (LM); Mindanao, Surigao, 1 ex. (LM); Mindanao. Momungan, 1 ex. (the aedeagus of this specimen is typical for the species; however, overall size is only 3.2 mm ) (LM).

Description. Entirely fulvous.
Body elongate ovate. Head impunctate, frontal tubercles triangular, sharply delimited at the rear, frons as wide as eye. Antennal segments $2-5$ proportions: 6-9-15-18. Prothorax 1.4 times as wide as long, lustrous, finely punctate, with deep transverse impression on each side. Elytra 1.6 times as long as wide, not strongly, but very densely punctate. Segment 1 of fore-tarsi not widened in male, of hind tarsi almost 4 times as long as $2+3$. Aedeagus (Figs 74, 75) with long apical part, which is longitudinally grooved on underside, rounded and slightly bilobous at apex; upperside with produced protuberance before orifice, especially distinct in lateral view.

Length of body $4.4-6 \mathrm{~mm}$, specimen from Momungan only 3.2 mm .

Derivatio nominis. This species is dedicated to the memory of J. Weise, an eminent investigator of the Chrysomelidae.

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