

Fig. 3. A-E, *Chelonitis takasago* sp. nov.; F, *Coccinella septempunctata* L.; G, *Coccinella transversalis* Fabricius; H, *Menochilus sexmaculatus* Fabricius. A, Maxillary palpus; B, antenna; C, spermatheca; D, hemisternite; E-H, dorsal outlines. 0.5 mm scale is applied to A-D, and 5 mm scale is to the others.

Specimens examined. 89 examples from the following localities: Taipei Hsien: Taipei. Taoyuan Hsien: Kuangyin. Nantou Hsien: Puli, Suitao, Baibara. Ilan Hsien: Ilan. Hualien Hsien: Hungyeh. Chiai Hsien: Chuchi, Minhsing. Taichung Hsien: Taitung. Tainan Hsien: Paiho, Kuantzuling, Neichiao, Tainan. Pingtung Hsien: Kenting, Szuchunghsi, Alco, Hengchung, Kuararu, Pingtung. Lanyu Is.: Hungtou (1 ex., 6-9. viii. 1976, T. Murota leg.).

Distribution. Japan, Ryukyus, Formosa, China, Philippines, Celebes, Borneo, Java, Sumatra, Flores, Sumba, Burma, Cambodia, Thailand, Malaya, India, Nepal, Sri Lanka, Iran, Andamans, New Guinea.

The form *quadriplagiatus* has long been treated as an independent species, but Nakane & Araki (1959) treated it as a synonym of *sexmaculatus* and their opinion was quite supported by the crossing experiments by Sasaji & Akamatsu (1979). They revealed that the elytral colour patterns of this species were governed by two pairs of complementary genes, but concerning the geographical variation of patterns, some problems are still ramined in question.

9. *Coccinella septempunctata* Linnaeus

(Fig. 3-F)

- Coccinella sepempunctata* Linnaeus, 1758, Syst. Nat. ed. 10: 365 (Europe); Weise, 1923: 183 (Formosa); Miwa, 1931: 83 (Formosa: Rōpi, Heitō); Miwa et al., 1932: 300 (Kōtōsho); Miyatake, 1965: 60 (Formosa: Musha, Oiwake-Tattaka).
Coccinella (Coccinella) sepempunctata: Khnzorian, 1979: 68.
Coccinella septempunctata bruckii: Miwa & Yoshida, 1935: 48.
Coccinella septempunctata ab. *bruckii*: Weise, 1923: 183 (Formosa); Miwa, 1931: 83 (Formosa: Chōsokei, Heitō).

Specimens examined. 33 examples from the following localities:

Taipei Hsien: Taipei. Nantou Hsien: Sungkang, Puli, Tungpu. Chuchi Hsien: Chuchi. Chia Hsien: Chuchi. Tainan Hsien: Tainan. Taitung Hsien: Chipenchi.

Distribution. Europe, Siberia, Japan, Ryukyus, Formosa, China, Korea, Mongolia, India.

10. *Coccinella transversalis* Fabricius

(Fig. 3-G)

- Coccinella transversalis* Fabricius, 1781, Spec. Ins.: 97 (Asia merid. et orient., Australia, N. Zealand); Miwa, 1931: 84 (Formosa: Taihoku, Rokkiri, Kōsenpo); Timberlake, 1943: 14 (Formosa: Tamsui).
Coccinella (Coccinella) transversalis: Khnzorian, 1979: 68.
Coccinella repanda Thunberg, 1781, Nov. Ins. Spec. 1: 18 (Capitae bonae spei); Weise, 1923: 183 (Formosa); Miwa & Yoshida, 1935: 48; Bielawski, 1962: 204 (Formosa: Kagi); Sasaji, 1968b: 128 (Formosa: Neichiao).
Coccinella repanda ab. *transversalis*: Miwa & Yoshida, 1935: 48.

Specimens examined. 44 examples from the following localities:

Taipei Hsien: Taipei. Taoyuan Hsien: Kuangyin. Ilan Hsien: Ilan. Nantou Hsien: Penpuchi, Suitao, Puli, Wushe. Hualien Hsien: Hatsune (=Chuiyin), Dōmon (=Tungmen). Chia Hsien: Chuchi, Minhsing, Alishan. Tainan Hsien: Kuantzuling, Neichiao, Tainan. Pingtung Hsien: Oulanpi, Koshun (=Henchun), Kenting.

Distribution. Formosa, China (Fukien, Kwantung, Yunnan), Thailand, Burma, Nepal, Bhutan, India, Sri Lanka, Sunda Is., New Guinea, Moluccas, Australia, Tasmania, New Caledonia, Triton Bay, Malaya.

11. *Chelonitis* (?) *takasago* sp. nov.

(Fig. 3-A - E)

Female. Body short oval, widest at middle of elytral length, dorsum rather weakly convex. Head black with reddish brown antennae and mouth parts; post-antennal process of frons whitish. Pronotum black, with narrow lateral and anterior margins pale yellow;

lateral pale margination occupying anterior three-fifths. Scutellum black. Elytra black with two pairs of red markings before and behind; anterior marking round, diameter of about one-third the width of elytron, situated just behind humeral callus; posterior marking also round, slightly smaller than anterior one, situated at apical one-third the elytral length. Underside of thorax and elytral epipleura black, partially dark reddish brown. Legs black in general, trochanters and tarsi dark reddish brown; extreme tips of femora and tibiae also slightly reddish. Abdomen reddish brown with a central part of first segment black.

Head including eyes a half as wide as pronotum, interocular distance slightly narrower than a half the head width. Innerocular margin distinctly arcuate; frons longitudinally and weakly depressed along the eyes, median part rather irregularly punctured, lateral areas very coarsely punctured and strongly shagreen; post-antennal emarginations of eyes distinct and long; clypeus truncate apically. Antenna four-fifths as long as the head width; first segment large, much longer than wide; second segment two-thirds as long as first and elongate; each of third to eighth cylindrical and distinctly longer than wide; ninth distinctly thickening apically, nearly as long as thick; tenth nearly as long as and much wider than ninth, distinctly transverse; terminal segment oval, longer than wide with a truncate tip. Terminal segment of maxillary palpus rather weakly expanded apically with a rounded tip.

Pronotum relatively wide, two-thirds the body width; anterior margin bisinuate emarginate, middle part of anterior margin weakly and arcuately convex; anterior corners rectangular with round tip; lateral sides weakly arcuate, distinctly reflexed and narrowly marginated; anterior margin also reflexed and narrowly marginated at short lateral parts; posterior corners gently rounded. Surface of pronotum uniformly, strongly and relatively densely punctured. Scutellum wider than long, one-tenth as wide as body width, finely punctured. Elytral base slightly wider than pronotum; lateral sides of elytra rather weakly arcuate. Punctuation of elytral disc slightly sparser than in pronotum. Outer margin of elytra not depressed and distinctly marginated throughout until the apex.

Prosternal process relatively short and broad with a rounded tip; prosternal carinae slightly narrowing anteriorly and not beyond the posterior margin of basisternum. Anterior margin of

mesosternum distinctly and roundly emarginated. Femoral line of first abdominal sternum incomplete; running parallel to posterior margin of the segment and almost reaching to lateral margin of the segment; additional line absent. Elytral epipleuron one-tenth as wide as body width, weakly inclined below; inner carina of epipleuron disappear at middle of fourth abdominal segment.

Female genitalia. Hemisternite as figured. Spermatheca relatively short and thick C-shape, weakly thickening apically; nodulus very short and ramus not defined. Infundibulum absent.

Male unknown.

Body length: 4.7-4.8 (4.8) mm.; width: 3.7 mm. Those of the type in parentheses.

Distribution. Formosa.

Holotype (♀): Sungkang, Nantou Hsien, Formosa, 1. vi. 1965, T. Shirōzu leg., preserved in the Collection of the Entomological Laboratory, Kyushu University, Fukuoka (Type No.2331).

Paratypes: 1♀, Sungkang, 9. vi. 1965, T. Shirōzu leg.; 1♀, Tungpu, Nantou Hsien, Formosa, 10. iv. 1965, T. Saigusa leg.

Remarks. The present new species is led to the genus *Chelonitis* Weise by the thick antennal club, paired prosternal carinae and the simple and incomplete femoral line of the first abdominal sternum in the traditional classification (e. g. Mader, 1926-37; Fürsch, 1967). But, it is differ to the detailed features of the genus *Chelonitis* shown by Iablokoff-Khuzorian (1979), whose key can not applied here as the male of this species is unknown. From a unique known species of the genus, *Ch. adalioides* Sicard, this is easily distinguishable by the dorsal coloration.

12. *Oenopia* (*Gyrocaria*) *sauzeti* Mulsant

(Fig. 4-A)

Oenopia sauzeti Mulsant, 1866, Monogr. Coccinell.: 281 (India).
Gyrocaria sauzeti: Miyatake, 1965: 65.

Specimen examined. Nantou Hsien: Naifunpo (Hsini)(1 ex., 19. v. 19-27, K. Yokoyama leg.-HU).

Distribution. Formosa (new record), China (Yunnan), Burma, Thailand, India, Nepal, Himalaya, Bhutan.

The present species is newly recorded from Formosa here based on a single specimen preserved in the Collection of Hokkaido University.

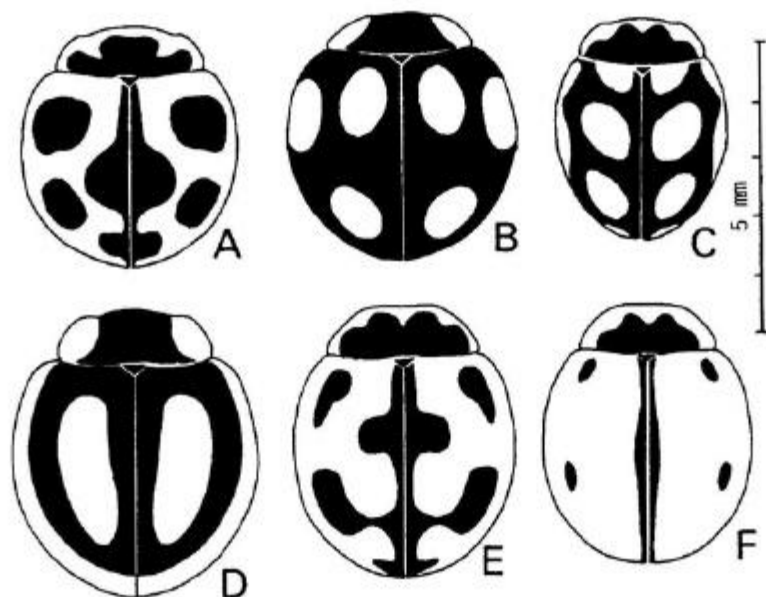


Fig. 4. Dorsal outlines. A, *Oenopia (Gyrocaria) sauzeti* Mulsant; B, *O. (G.) formosana* Miyatake; C, *O. (Protocaria) scalaris* Timberlake; D, *Propylea shirozui* sp. nov.; E-F, *P. japonica* Thunberg.

13. *Oenopia (Gyrocaria) formosana* (Miyatake)

(Fig. 4-B)

Gyrocaria formosana Miyatake, 1965: 65 (Formosa: Taipei, Shikaya, Biran, Musha).
Coelophora chinensis: Weise, 1923: 184 (Formosa); Miwa, 1931: 86 (Formosa: Tainan); Mader, 1934: 42 (pars); Miwa & Yoshida, 1935: 44.
Coelophora (Coelophora) chinensis: Korschefsky, 1932: 291 (Formosa, China) (pars).
Oenopia chinensis: Khnzorian, 1979: 70 (= *formosana* Miyatake, 1965) (pars).

Specimens examined. Taipei Hsien: Taipei (2 exs., 21. v. 1965, P. K. C. Lo leg.); Wulai (1 ex., 24. v. 1925, T. Kano leg.-NSM). Nantou Hsien: Puli (7 exs., 8. vii. 1966, H. Kamiya leg.; 1 ex., 11. vii. 1966, H. Kamiya leg.; 1 ex., 28. vi. 1965, S. Kimoto leg.); Wushe - Pihu (2 exs., 21-23. vii. 1976, T. Murota leg.); Meichi (1 ex., 4. vi. 1966, K. Tsuneki leg.); Penpuchi (1 ex., 4. vi. 1965, T. Shirôzu leg.); Musha (=Wushe) (1 ex., 16. viii. 1921, T. Esaki leg.-KU). Tainan Hsien: Kuantzuling (2 exs., 7. iv. 1965, S. Miyamoto leg.); Tainan (1 ex., 1. vi. 1928, S. Takano leg.-HU). Taichung Hsien: Taichung (23 exs., 26. iv. 1965, T. Shirôzu leg.). Hsinchu Hsien: Taiko (2 exs., 8. iv. 1967, T. Shirôzu leg.).

Distribution. Formosa.

China, N. India, Bhutan.

16. *Propylea shirozui* sp. nov.

(Figs. 4-D, 5)

Male. Body nearly hemispherical, slightly longer than wide; Dorsum moderately convex above, and strongly shining. Head pale yellow, antennae yellow with brownish club, mouth parts brownish yellow. Pronotum deep yellow with a black central area which is about a half the pronotal width at its base and weakly narrowing apically; the pronotal black area not reaching to the anterior margin of pronotum and arcuately sided. Scutellum black with an indistinct yellow spot. Elytra composed of deep yellow and black; marginal area of elytra rather broadly yellow; yellow discal area large, longitudinally oval, distinctly separated from both basal and sutural margins; sutural area rather broadly black, except apical part. Underside of prothorax, elytral epipleura and legs except coxae deep yellow to yellowish brown. Underside of meso- and metathoraces black; abdomen black with yellowish marginal areas.

Head relatively small, slightly narrower than a half the

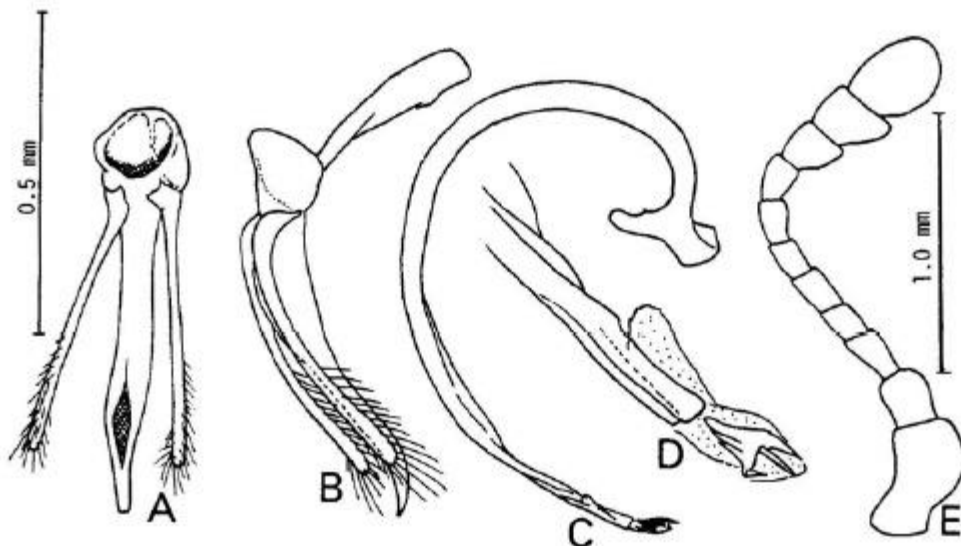


Fig. 5. Male genitalia and antenna of *Propylea shirozui* sp. nov. A, Tegmen, ventral aspect, median strut is removed; B, tegmen, lateral aspect; C, siphon, lateral aspect; D, apical part of siphon; E, antenna. 0.5 mm scale is applied to D, E, and 1.0 mm scale is to the others.

pronotal width; frons about two-fifths the head width, innerocular margins distinctly arcuate, post-antennal process of eye deeply and narrowly emarginate. Anterior margin of clypeus nearly straight. Surface of frons coarsely and rather irregularly punctured. Antenna about twice as long as interocular distance; relatively stout; each segment of third to eighth nearly cylindrical, distinctly longer than wide; ninth distinctly thickening apically, nearly as long as apical thickness; tenth nearly as long as ninth and much wider than long; terminal segment oval with a rounded apex.

Pronotum nearly a half as wide as the body width. Lateral sides of pronotum weakly but distinctly arcuate, anterior margin rather deeply and trapezoidally emarginate, both anterior and basal corners gently rounded. Surface of pronotum finely, densely and rather regularly punctured. Scutellum distinctly wider than long, about one-tenth as wide as the body width, minutely punctured. Elytral punctation fine but distinctly sparser and stronger than that of pronotum; narrow area along the elytral margin very strongly punctured; elytral margin hardly expanded laterally and very narrowly margined.

Prosternal carinae narrowly separated at middle and weakly divergent posteriorly; disappearing far distant from anterior margin of prosternum. Anterior margin of mesosternum carinate and deeply and triangularly emarginate in middle. Elytral epipleuron about one-seventh as wide as the body width, weakly grooved and gently foveate for the reception of femoral tips. Posterior margin of fifth abdominal sternite slightly incurvate; sixth sternite well exposed with gently rounded posterior margin; a small longitudinal tubercle represented in middle of apical margin of the sternite.

Male genitalia. Siphon moderate in length; basal half curved in semicircle and apical half weakly arcuate; apical short part of siphon twisted; siphonal apex with a small sclerotized appendix which is divided into several spines. Median piece of tegmen very long and very slender, tubular, narrowing apically with a truncate tip in ventral aspect; tapering dorsally in lateral aspect. Lateral lobes of tegmen extremely slender, distinctly shorter than median piece, nearly straight except a short basal part. Median strut of tegmen short, three-fifths the median piece.

Female. Frons black with brownish anterior margin of clypeus. Prosternum and femora blackish except brownish tips. Posterior margin of fifth abdominal sternite almost flat; sixth sternite very shortly exposed or almost invisible, with rather angulated posterior margin; a small tubercle on sixth sternite absent.

Body length: 3.6-4.1 (3.6) mm.; width: 3.0-3.4 (3.0) mm., those of the type are in parentheses.

Distribution. Formosa.

Holotype (♂): Sungkang, Nantou Hsien, Formosa, 24. vi. 1965, T. Shirôzu leg., preserved in the Collection of the Entomological Laboratory, Kyushu University, Fukuoka (Type No.2332). Paratypes: 3♀♀, Sungkang, 1. vi. 1965; 1♂1♀, Sungkang, 11. vi. 1965; 1♂, Sungkang, 9. vi. 1965; 1♀, Sungkang, 19. v. 1965; 2♀♀, Sungkang, 24. vi. 1965, all T. Shirôzu leg.

Remarks. This new species is closely related to the genus *Oenopia* in many external characters, but the very slender tegmen of male genitalia in this species is quite dissimilar to those in members of *Oenopia*. It is difficult to determine the genus of this species, but I refer it to the genus *Propylea* here as a tentative treatment. From the known species of *Propylea*, *Oenopia* (s. lat.) and their related genera, it is easily distinguishable in the curious dorsal coloration.

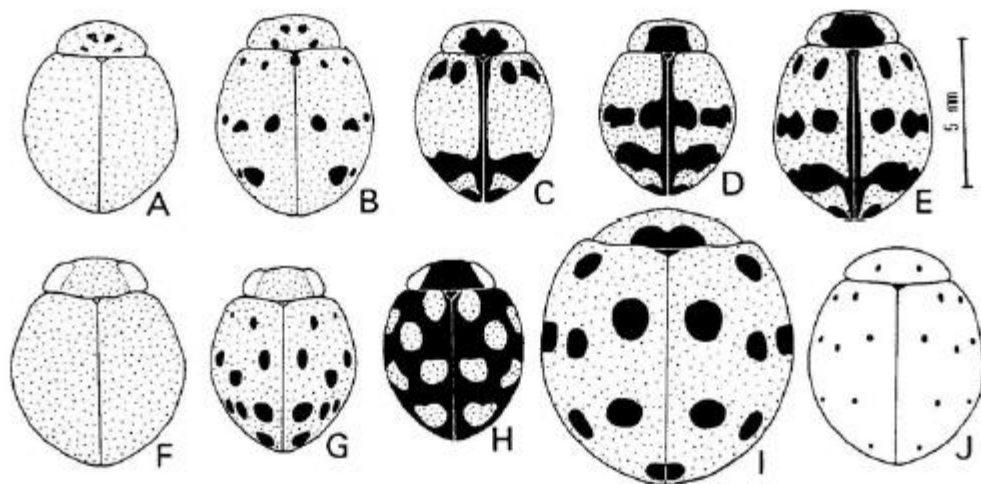


Fig. 6. Dorsal outlines of *Harmonia* spp. A-E, *H. octomaculata* Fabricius; F-H, *H. yedoensis* Takizawa; I, *H. dimidiata* Fabricius; J, *H. sedecimnotata* Fabricius.

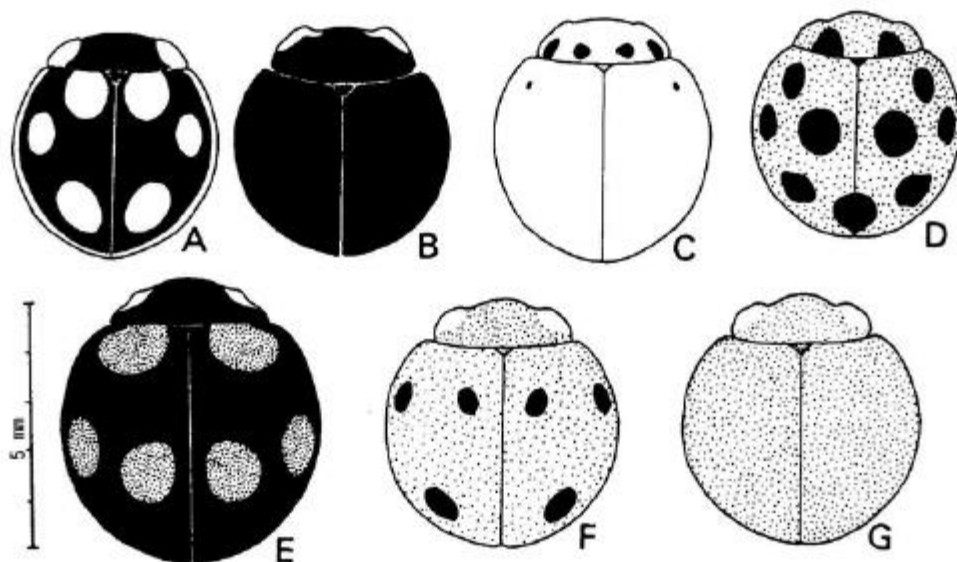


Fig. 8. Dorsal outlines of *Coelophora* spp. A, *C. flavomarginata* sp. nov.; B, *C. vidua* Mulsant; C, *C. itoi* sp. nov.; D, *C. inaequalis* Mulsant; E, *C. sexguttata* Weise; F, *C. tanoi* sp. nov.

21. *Coelophora inaequalis* (Fabricius)

(Fig. 8-D)

Coccinella inaequalis Fabricius, 1775, Syst. Ent. 1: 80 (New Holland).

Coelophora inaequalis: Mulsant, 1850: 404; Korschefsky, 1932: 292 (Formosa);

Miwa & Yoshida, 1935: 45.

Coccinella novemmaculata Fabricius, 1781, Spec. Ins.: 97 (New Holland).

Coelophora novemmaculata: Chûjô, 1940: 10 (Botel Tobago Is.).

Specimens examined. Lanyu Is. (=Botel Tobago): Hungtou (2 exs., 6-9. viii. 1976, T. Murota leg.).

Distribution. Formosa (Botel Tobago Is.), Philippines, Celebes, Borneo, Java, Sumatra, Thailand, Midway Is., Micronesia, New Guinea, New Caledonia, Australia, Tasmania, Hawaii Is.

Chûjô (1940) recorded the nine-spotted form of this species from Botel Tobago Is. (=Lanyu Is.) and I examined two specimens of the same form collected also from the same island. The distribution in the mainland of Formosa is questionable.

area reaching the anterior margin of pronotum without orange margin. Posterior margin of fifth abdominal segment convex posteriorly and sixth segment usually invisible.

Body length: 3.2-3.7 (3.25) mm.; width: 2.8-3.3 (2.9) mm., those in the type are in parentheses.

Distribution. Formosa.

Holotype (♂): Wushe - Chunyan (alt. 1140-1000m), Nantou Hsien, Formosa, 20. xii. 1969, Y. Miyatake leg., preserved in the Collection of Osaka Museum of Natural History (OMNH TI-13). Paratypes: 1♀, Sungkang, Nantou Hsien, 1. vi. 1965, T. Shirōzu leg.; 1♀, Sungkang, 16. vii. 1966, H. Kamiya (=H. Sasaji) leg.

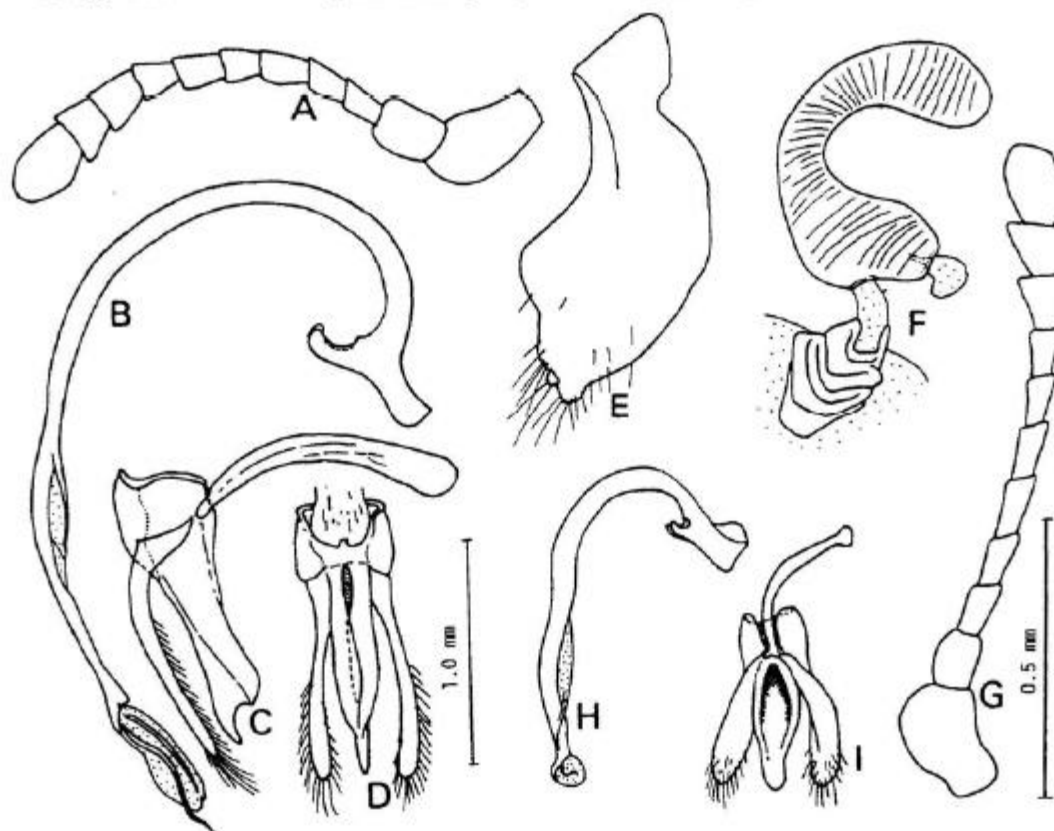


Fig. 9. A-D, *Coelophora tanoi* sp. nov.; E-G, *C. itoi* sp. nov.; H-I, *C. flavomarginata* sp. nov. A, G, Antennae; B, H, siphos, lateral aspect; C, tegmen, lateral aspect; D, I, tegmen, ventral aspect; E, hemisternite; F, spermatheca. 1.0 mm scale is applied to A-D, H, I, and 0.5 mm scale is to the others.

Remarks. The dorsal coloration of this new species is somewhat similar to *Oenopia formosana* Miyatake, but in the latter the outer margin of elytra is not marginated by yellow colour.

25. *Coelophora itoi* sp. nov.

(Figs. 8-C; 9-E - G)

Female. Body nearly hemispherical, dorsum strongly convex above. Dorsal surface pale yellowish brown with four black spots on pronotum. Pronotal spots arranged transversely along the basal margin; outer spot small, oval, situated near basal corner, touching the basal margin; inner spot subtriangular, nearly as large as outer one, not touching the basal margin. Elytra almost entirely pale-coloured but a minute, indistinct black spot present at humeral. Head including antennae and mouth parts, underside of body, and legs yellowish brown without any distinct dark part.

Head two-sevenths the body in width; interocular distance about a half the head width; innerocular margins strongly arcuate throughout; surface of frons and clypeus weakly and indistinctly punctured and very distinctly shagreen; anterior margin of clypeus straight with sharply pointed lateral denticles, and narrowly marginated; post-antennal emargination of eyes rather shallow and wide. Antenna about twice as long as interocular distance; relatively slender and loosely articulated: first segment stout, longer than thick; second about a half as long as first and longer than thick; each of third to seventh segments cylindrical, weakly thickening apically with an obliquely truncate apical side, much longer than wide; eighth shorter than seventh; ninth distinctly longer than and thicker than eighth and much longer than thick; tenth similar to ninth and slightly thicker; terminal segment elongate oval. Labrum strongly transverse, with an anterior margin slightly incurvate in middle. Terminal segment of maxillary palpus moderately strongly expanded with a sharply pointed tip.

Pronotum five-eighths as wide as the body width; strongly transverse, the length at median line 0.45 time as much as pronotal width; basal margin strongly arcuate; lateral sides rather weakly arcuate, widest near the base, weakly incurvate near the anterior corner which is sharply angulate with a rounded tip; anterior margin of pronotum bisinuate and deeply incurvate. Pronotal disc clearly, finely and densely punctured and distinctly shagreen.

Scutellum transverse triangular, about one-tenth as wide as body width, and a half as long as wide, finely punctured and shining. Elytral base distinctly wider than pronotum; outline of elytra nearly circular; outer margin distinctly depressed and narrowly margined; apex of each elytron rectangular and hardly rounded. Surface of elytral disc punctured and shagreen as well as that of pronotum; depressed outer part of elytra very coarsely punctured, and margined surface very finely and densely punctured.

Prosternal process nearly parallel-sided and rather wide; both prosternal carinae rather narrowly separated, interval becoming narrower anteriorly and ending at middle of basisternum. Anterior margin of mesosternum very deeply and triangularly excavate. Elytral epipleuron wide, 0.16 time as much as body width; outer half strongly incline below; weakly foveate for reception of femoral tips; inner carina strongly convergent posteriorly to outer margin and touching the latter at apex. Sixth abdominal segment scarcely exposed and invisible externally.

Female genitalia. Hemisternite elongate; strongly constricted near basal end; apical inner corner roundly produced; stylus very small with two setae. Spermatheca rather strongly curved C-form; narrowing at middle; basal part thickening but nodulus not defined; ramus also indistinct. Sperm duct very short and thick. Infundibulum short and very thick, and subpyramidal.

Male. Unknown.

Body length: 4.9 mm.; width: 4.3 mm.

Distribution. Formosa.

Holotype (♀): Nanshanchi, Nantou Hsien, Formosa, 30. vi. 1965, S. Ito leg., preserved in the Collection of the Entomological Laboratory, Kyushu University (Type No. 2333).

Remarks. The present new species is distinguishable from the other known species of the genus *Coelophora* in having a unique dorsal coloration, strongly shagreen frons and dorsal surface and very short infundibulum. We can not examined a male specimen.

26. *Coelophora tanoi* sp. nov.

(Figs. 8-F, G; 9-A - D)

Male. Body nearly hemispherical, strongly convex above. Frons, clypeus and labrum milky yellow; antennae and majorily of mouth parts reddish brown. Pronotum reddish brown with latero-anterior portions milky yellow, of which borders are indistinct. Scutellum reddish brown, with dark corners. Elytra reddish brown, with three pairs of small black spots, arranged in 2-1 on each; one is oval, situated near the suture and anterior one-fourth of elytra; the second is smaller and situated slightly behind humeral callus; the third is somewhat large, situated preapically. Pleuron of prothorax milky yellow with reddish brown oval depression. Under-side of body and legs reddish brown in general; mesepimeron milky yellow; central parts of metathorax and first abdominal sternum darker.

Head about four-ninths as wide as body width; interocular distance two-fifths the head width; frons narrow and innerocular margins distinctly arcuate; surface of frons and clypeus shallowly and rather densely punctured, and distinctly and finely shagreen. Anterior margin of clypeus slightly incurvate; lateral processes of clypeus fairly long, obliquely projecting outwards. Antenna somewhat longer than interocular distance; each segment is as illustrated; ninth segment slightly longer than thick, weakly thickening apically; tenth distinctly shorter than ninth, distinctly wider than long; the terminal segment elongate oval. Terminal segment of maxillary palpus rather elongate; inner corner rectangular; apical corner about 40° .

Pronotum three-fifths as wide as body width; posterior margin strongly arcuate, forming one-third of an imaginal circle; basal corners largely rounded; anterior half of lateral sides nearly straight and very strongly incline inwards; anterior margin very suddenly excavated; interval between anterior corners about half the pronotal width. Surface of pronotal disc finely and densely punctured and scarcely shagreen. Scutellum nearly regular triangle, latero-posterior margins weakly incurvate and posterior corner sharply pointed; about one-seventh as wide as pronotum. Elytral base distinctly wider than pronotum; external outline of elytra nearly circular; outer margin gently and weakly depressed

and narrowly margined. Punctuation of elytral disc slightly sparser and weaker than that of pronotum. Outer narrow portion of elytra very coarsely punctured.

Oval depression at inner corner of prothoracic epipleuron fairly large and distinct. Prosternal process relatively short, widening posteriorly; prosternal carinae much narrowly separated than the process, distinctly narrowing anteriorly but not so strongly, very short less than one-third the length of prosternum. Mesosternal process with lateral sides weakly narrowing posteriorly, with anterior margin deeply and rather narrowly excavated. Elytral epipleuron wide, about one-seventh as much as body width; rather strongly inclined below and weakly foveate for reception of femoral tips. Posterior margin of fifth abdominal sternite straight and relatively wide; posterior margin of sixth segment bisinuate and distinctly incurvate in middle.

Male genitalia. Median piece of tegmen very narrow with an extremely narrow tip in ventral aspect; the lamellate part is well-developed at ventral side of median piece. Lateral lobes of tegmen very slender, slightly beyond the tip of median piece. Siph slender and long, distinctly swollen at apical one-third; apex of siph widening and obliquely truncate with apical membrane and sclerites. Apical sclerites as follows: dorsal one very long, thread like and bisinuate, a pair of ventral ones arcuate, also very narrow, slightly shorter than dorsal one.

Variation. In a male paratype, elytral black spots entirely wanting and uniformly reddish brown.

Female. Unknown.

Body length: 5.1 mm.; width: 4.7 mm.

Distribution. Formosa.

Holotype (♂): Kueishanhu, Taipei Hsien, Formosa, 6. vii. 1966, T. Tano leg., preserved in the Collection of the Entomological Laboratory, Kyushu University (Type No. 2334). Paratype: 1♂, the same data as the holotype.

Remarks. Two specimens examined here are dissimilar to each other in their elytral coloration, but structural characters including male genitalia of both specimens are quite identical. This new species resembles *Ceolophora inaequalis*, which is widely distributed and polymorphic in coloration, in many characters except the

coloration, but the former is different from the latter in the following points: the pronotum scarcely shagreen; prosternal carinae rather weakly convergent anteriorly; median piece of tegmen in male genitalia very slender; and lateral processes of clypeus long and obliquely projecting.

27. *Phrynocaria congener* (Billberg)

(Fig. 10-F)

Coccinella congener Billberg, 1808, in Schönherr, Syst. Ins. 2: 179 (India or.).

Coelophora congener: Mulsant, 1850: 392.

Phrynocaria congener: Timberlake, 1943: 34.

Lemnia consimilis M. Araki, 1962, Sci. Rep. Kyoto Pref. Univ. (A) 3: 195.

Chilomenes teretus Ohta, 1929: 69 (Formosa: Tainan, Shika, Taihoku) (syn. nov.).

Specimens examined. Tainan (4 exs., 17. vii. 1920, T. Takano leg.-HU, including the type of *Chilomenes teretus* Ohta, 1929). Domon (=Tungmen) (1 ex., Y. Miwa leg.-HU).

Distribution. Formosa, Ryukyus, China (Fukien, Kwantung), India.

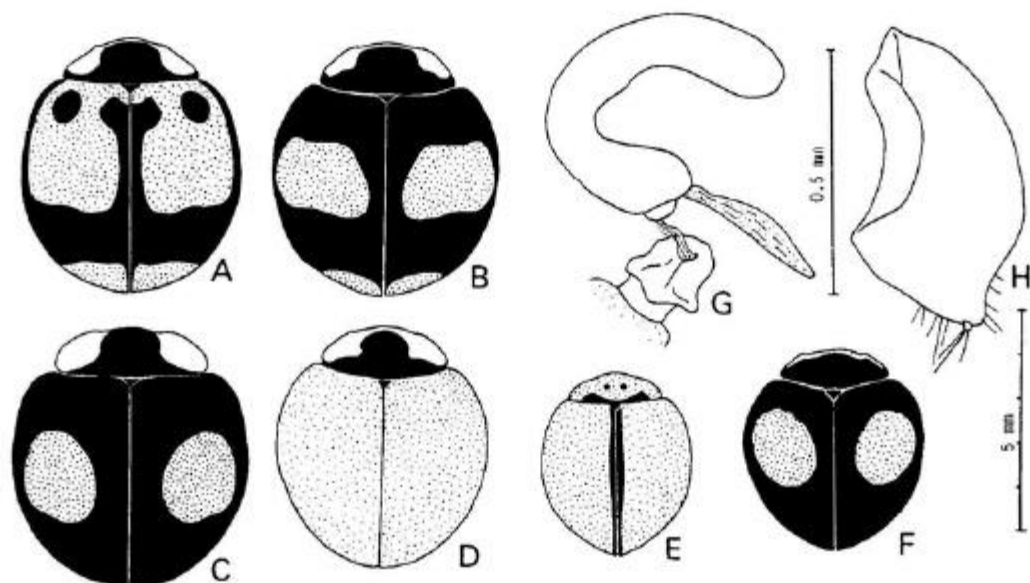


Fig. 10. A, B, *Lemnia (Lemnia) bipagiata* Swartz; C, *L. (L.) saucia* Mulsant; D, G, H, *L. (L.) loi* sp. nov.; E, *Micraspis discolor* F.; F, *Phrynocaria congener* Billberg. A-F, Dorsal outlines; G, spermatheca; H, hemisternite. 0.5 mm scale is applied to G, H, and 5 mm scale is to the others.

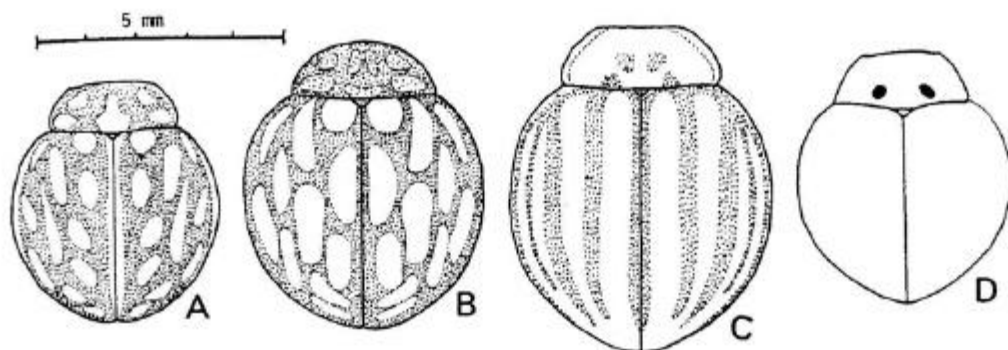


Fig. 13. Dorsal outlines. A, *Halyzia sanscrita* Mulsant; B, *H. shirozui* sp. nov.; C, *Macroilleis hauseri* Mader; D, *Illeis koebelei* Timberlake.

Specimens examined. Taipei Hsien: Wulai (1 ex., 12. vi. 1980, H. Makihara leg.); Taipei (1 ex., 24. iv. 1914, I. Nitobe leg.-HU). Nantou Hsien: Tattaka (=Sung kang) (1 ex., 24. v. 1927, T. Kano leg.-NSM). Taoyuan Hsien: Ssuleng (5 exs., 22. v. 1980, H. Makihara leg.).

Distribution. Japan, Formosa, China (Szechwan), Himalaya, N. India, Burma, Nepal, Sikkim, Kashmir.

Comparing with the Japanese materials, the Formosan ones are much reduced the black areas on elytra.

PSYLLOBORINI

37. *Halyzia sanscrita* Mulsant

(Fig. 13-A)

Halyzia sanscrita Mulsant, 1853, Ann. Soc. Linn. Lyon 1: 152 (India).

Specimens examined. Nantou Hsien: Sung kang (2 exs., 18. v. 1965, T. Shirōzu leg.; 1 ex., 16. vi. 1965, T. Shirōzu leg.; 9 exs., 16. vii. 1966, H. Kamiya leg.), Tsiufeng (5 exs., 10. vii. 1966, H. Kamiya leg.), Tungpu, 2650 m (1 ex., 10. iv. 1965, S. Uēno leg.), Baibara (=Meiyuan) (2 exs., 15. viii. 1926, K. Kikuchi leg.-HU). Chiai Hsien: Alishan (1 ex., 6. vii. 1965, Y. Kurosawa leg.; 1 ex., 6. iv. 1965, S. Uēno leg.). Ilan Hsien: Taipingshan (6 exs., 4. 1976, B. S. Chang leg.).

Distribution. Formosa (new record), China (Kansu, Szechwan, Yunnan), India (West), Tibet, Sikkim, Bhutan.

38. *Halyzia shirozui* sp. nov.

(Figs. 13-B, 14)

Female. Body short oval, relatively weakly convex above. Head milky yellow, with pale yellowish brown mouth parts and antennae. Pronotum milky yellow with brownish central area which is indistinct and irregular in its shape. Lateral narrow parts and anterior wide part of pronotum somewhat hyaline. Scutellum milky white. Elytra pale yellowish brown with eleven pairs of milky yellow markings which are arranged in four longitudinal stripes as illustrated in Fig. 13-B. Each marking much elongate and distinctly longer than twice of own width, except scutellar one and apical two, which are short oval and strongly transverse respectively. Brownish ground colour of elytra is paler and yellow colour of elytral markings is deeper than in *H. sansarita*. Outer margin of elytra whitish and somewhat hyaline. Underside of body and legs pale yellowish brown.

Head hidden under expanded pronotum and invisible from above; slightly narrower than a half the pronotal width. Eye very large, interocular distance one-third the head width; innerocular margins very strongly divergent apically at anterior half. Post-antennal emargination of eyes rather shallow and wide. Clypeus relatively narrow, as wide as interocular distance, nearly parallel-sided. Antenna much longer than head width, slender with a loosely articulate club.

Pronotum subtrapezoidal, three-fifths as wide as body width, and twice as wide as long. Basal side of pronotum weakly sinuate, and apical side almost straight and not excavate in normal aspect. Surface weakly depressed along lateral and anterior sides. Pronotal disc very finely and densely punctured. Scutellum small triangle, about one-tenth the pronotal width, surface of scutellum slightly convex. Elytra nearly as wide as long in dorsal aspect, and outer margins rather broadly depressed. Elytral disc densely punctured as well as pronotum and more strongly and clearly than pronotum.

Prosternal process relatively narrow with a truncate tip; prosternal carinae straightly and distinctly convergent anteriorly, reaching half part of the basisternum. Anterior margin of mesosternum rather weakly and roundly emarginated in middle. Elytral

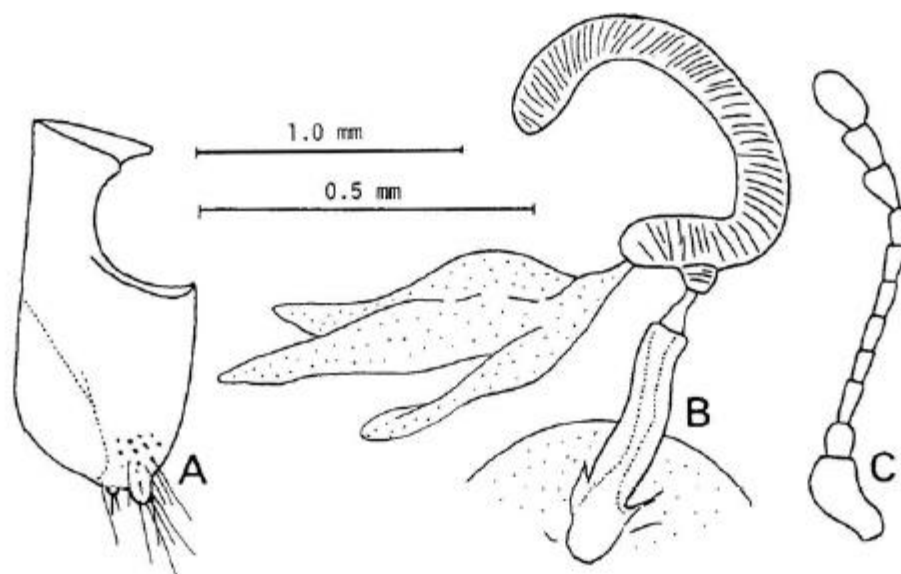


Fig. 14. Female genitalia and antenna of *Halyzia shirozui* sp. nov. A, Hemisternite; B, spermatheca; C, antenna. 1.0 mm scale is applied to C, and 0.5 mm scale is to A, B.

epipleuron broad, about one-eighth the body width, shallowly grooved along the outer margin.

Female genitalia as shown in Fig. 14-A, B.

Male. Unknown.

Body length: 5.5-6.5 (5.6) mm.; width: 4.5-5.6 (4.6) mm., those of the type are in parentheses.

Distribution. Formosa.

Holotype (♀): Sungkang, Nantou Hsien, Formosa, 11. vi. 1965, T. Shirôzu leg., preserved in the Collection of the Entomological Laboratory, Kyushu University (Type No. 2336). Paratypes: 3♀♀, Sungkang, 31. v. 1965; 1 ♀, Sungkang, 11. vi. 1965, T. Shirôzu leg.; 1♀, Alishan, Chiaï Hsien, 6. vii. 1965, Y. Kurosawa leg.; 1♀, Jenai, Nantou Hsien, 30. v. 1965, B. S. Chang leg.

Remarks. This new species closely resembles the preceding species *H. sanscrita* in their coloration and other general characters, but in this species, the suture proper of elytra is not white, the innermost series of the elytral markings consist of five ones including two very elongate ones.