# Study on the Tenebrionid Beetles in South Sumatra

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Summary : This is the second report concerning the fauna of tenebrionid beetles mainly in Benakat, South Sumatra, collected by H. MAKIHARA from February to March 1983 and in September 1994, and also in June 1995. Twenty-five new species are described: *Platydema selatana* sp. nov., *P. benakatensis* sp. nov., *Xanthalia benakatensis* sp. nov., *X. sumatrensis* sp. nov., *P. matsumotoi* sp. nov., *Simalura sumatrensis* sp. nov., *S. falsosoror* sp. nov., *Plaedis elicitus* sp. nov., *Tetragonomenes benakatensis* sp. nov., *Falsonannocerus benakatensis* sp. nov., *Allopezus tsuge* sp. nov., *A. shigeoi* sp. nov., *A. powanus* sp. nov., *A. jowanpus* pseudopicitarsis sp. nov., *A. benakatensis* sp. nov., *A. powanus* sp. nov., *A. sumatraselatanus* sp. nov., *A. falsosericeus* sp. nov., *A. yukae* sp. nov., *A. matsumotoi* sp. nov., *Strongylium selatanum* sp. nov., *S. benakatense* sp. nov. This report also contains a newer list of 129 species obtained from the present area.

### Contents

1	Introduction	115
2	Description of the Family Tenebrionidae	116
3	List and Descriptions of the Tenebrionid Species from South Sumatra Collected by H. MAKIHARA	…117
Acknowledgments		141
References ······141		141
和	文摘要 ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	143

### 1 Introduction

From 1979 to 1988, the technical cooperation for the trial plantation project between the governments of Indonesia and Japan was launched in Benakat of South Sumatra to established afforestation. In 1983, one of the

authors (MAKIHARA) of the present paper surveyed the insect fauna and collected a large series of material specimens in this area.

In 1985, MASUMOTO, the other author of the present paper, published the first report concerning the tenebrionid beetles collected by MAKIHARA from February to March 1983. In the paper 81 species, including 11 tribes, are recorded and 9 new species are described.

In September 1994 and June 1995, MAKIHARA collected another series of materials in Benakat, Palembang and Seilalan of South Sumatra (Fig. 1). They were carefully examined.



Fig. 1. Location of South Sumatra

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-116 -

### 森林総合研究所研究報告 第374号

This is the second report concerning the fauna of tenebrionid beetles in this area. More than 40 species and 2 tribes will be added into the list and 25 new species will be described in the present paper.

All the holotypes to be designated will be deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo (NSMT).

### 2 Description of the Family Tenebrionidae

The tenebrionid beetles are rather difficult to recognize as a family, but the heteromerous and usually simple tarsi, hard body, closed procoxal cavities, simple claws, and definite epistomal margin serve to distinguish them.

Ecology of the family is very versatile. The adults or larvae are found in almost all habitats except water. Some are severe pests of stored products; some inhabit termite and ant nests, human habitations, rotten wood, fungi, debris, under logs and stones, and some are a familiar sight in desert areas. They are, so far as is known, scavengers feeding on decaying vegetation, animal waste products, chiefly dung, seeds, cereals, fungi, and sometimes living plant roots, tubers, or flowers. More than 25 000 species are known from all areas of the world and a great many species live in the tropical rain forests.

Descriptions: Shape various, usually elongate, convex; size 2 to 35 mm in length; colour mostly black, but sometimes brown, or black with red or yellow markings or white scales; vestiture usually absent except on tarsi, but may be present as long hairs on broad, fat scales.

Head usually oval, prognathous, smaller than pronotum; surface various, smooth to rugose and horned. Antennae eleven-segmented, rarely with less than ten, usually somewhat clavate, sometimes subserrate; inserted beneath the frons which is produced over the antennal sockets and extends into the emargination of the eyes. Labrum distinct, entire or emarginate, portions may be corneous; mandibles usually short, robust, often toothed, sometimes somewhat curved, apices blunt to acute; maxillary palpi four-segmented, the apical segment enlarged; labrum with the mentum variable, sometimes very large; ligula usually visible; paraglossae distinct; labial palpi three-segmented, the apical segment enlarged. Eyes usually small, transverse, emarginate.

Pronotum broader than the head; shape various, often oval; borders usually margined; surface various, smooth to rugose; prosternum prominent; procoxal cavities closed behind; mesosternum short; mesocoxal cavities open or closed laterally; metasternum of variable length. Scutellum small, triangular. Elytra apically rounded, embracing the sides; striae usually present; intervals mostly flat; epipleural fold broad; epipleura narrow; hind wings mostly present but rarely apterous or brachypterous. Legs usually long; trochantin absent on the fore coxae; procoxae globose, rarely oval, not prominent, always separated; mesocoxae round, usually widely separated; metacoxae transverse, separate; trochanters small, triangular; femora usually slender; tibiae usually slender, spurs prominent; tarsal formula 5-5-4 except very rarely, the first segment almost always longer than the second, without ventral membranous lobes.

Abdomen with five visible sternites, sternites one to three appear connate. Male genitalia of the modified trilobed type; penis not well developed, short or long, variously modified; parameres fused to form a trough; pars basalis distinct, forming a large sclerite dorsally. Female genitalia with the paraprocts membranous; valvifers usually large and heavily sclerotized; coxite present, sometimes black and hard, may be two-segmented.

## 3 List and Descriptions of the Tenebrionid Species from South Sumatra Collected by H. MAKIHARA

Tribe Heterotarsini

1 *Heterotarsus inflatus* LACORDAIRE, 1859 (Fig. 3) Specimens examined: 8 exs., Benakat, II-1983.

### Tribe Opatrini

- 2 *Gonocephalum adpressiforme* KASZAB, 1951 (Fig. 4) Specimens examined: 2 exs., Benakat, II-III-1983.
- 3 Gonocephalum andrewesi KASZAB, 1952 (Fig. 5) Specimens examined: 3 exs., Palembang, VI-1994.
- Scleron ferrugineum (FABRICIUS, 1801) (Fig. 6)
  Specimen examined: 1 ex., Benakat, collected by light trap at nursery site, II-1983.

Tribe Bolitophagini

- Bradymerus clathratus SCHAUFUSS, 1887 (Fig. 7)
  Specimens examined: 3 exs., Benakat, II-1983; 1 ex., Benakat, IX-1994.
- Atasthalus callosus GEBIEN, 1914 (Fig. 8) Specimens examined: 1 ex., Benakat, II-1983.
- Byrsax excisicollis GEBIEN, 1914 (Figs. 9, 9')
  Specimens examined: 157 exs., Benakat, collected from the polypores, *Ganoderma* sp. (Ganodermataceae), IX-1994.

### Tribe Rhipidandrini

- 8 Rhipidandrus crenipennis (Motschulsky, 1858) (Fig. 10) Specimens examined: a large number, Benakat, collected from the polypores, Ganoderma sp. (Ganodermataceae), IX-1994.
- 9 Rhipidandrus speculifrons (GEBIEN, 1922) (Fig. 11)
  Specimens examined: a large number, Benakat, collected from the polypores, Ganoderma sp. (Ganodermataceae), IX-1994.

### Tribe Diaperini

- Platydema tricuspis Motschulsky, 1873 (Fig. 12)
  Specimens examined: 69 exs., Benakat, collected from the polypores, *Ganoderma* sp. (Ganodermataceae), IX-1994; 2 exs., Palembang, VI-1995.
- Platydema fumosum LEWIS, 1894 (Fig. 13) Specimens examined: 3 exs., Benakat, VI-1995.

森林総合研究所研究報告 第374号

- Platydema waterhousei GEBIEN, 1925 (Fig. 14) Specimens examined: 10 exs., Benakat, IX-1994.
- Platydema sp. (Fig. 15)
  Specimens examined: 10 exs., Benakat, IX-1994. affin. P. subfascia (WALKER, 1858)
- 14 Platydema sp. (Fig. 16)Specimens examined: 1 ex., Benakat, VI-1995.

#### 15 Platydema selatana sp. nov. (Fig. 17)

An isolated species recognized at first sight by its dorsal colouration. Brown and partly feebly darkened, eyes black, elytron yellowish brown, with a blackish patch at base of 4th and 5th intervals, also with a large blackish band, whose anterior margin is clearly zigzagged, and posterior margin is rather vague, obliquely at the middle, scutellum, sutural and apical portions more or less darkened; dorsal surface strongly shining, ventral surface feebly alutaceously shining; each surface almost glabrous. Ovate; strongly convex above.

Head transversely hexagonal, noticeably concave medially; clypeus somewhat trapezoidal, feebly raised apicad, frequently scattered with microscopic punctures, apex in male with a tubercule at the middle, frontoclypeal border almost straight, very finely impressed; genae dilated, weakly depressed in inner portion, with outer margins very slightly produced; frons somewhat triangularly flattened, scattered with microscopic punctures, which are sparser and larger than those on clypeus; eyes rounded laterad and triangularly inlaid into head, diatone twice the width of eye diameter; vertex roundly emarginate and deeply concave anteriad, with a pair of bold, asymmetrical horns, whose apices are pointed. Antennae gently clavate, reaching base of pronotum, ratio of the length of each segment from basal to apical: 0.35, 0.2, 0.3, 0.35, 0.3, 0.35, 0.3, 0.3, 0.45.

Pronotum 2.2 times as wide as long, widest at base; apex feebly emarginate, almost straight widely in middle, very finely rimmed; base sinuous on each side; sides gently inclined, lateral margins roundly narrowed apicad, finely rimmed; front angles rounded, hind angles subrectangular; disc transversely convex, obliquely impressed at base on each side, very weakly micro-shagreened, rather closely, finely punctate, each puncture with a microscopic scale-like hair. Scutellum semicircular, sparsely scattered with microscopic punctures.

Elytra 1.25 times as long as wide, 3.1 times the length and slightly more than 1.2 times the width of pronotum, widest at basal 2/5; dorsum strongly convex, highest at basal 1/4; disc punctato-striate with shallow striae and punctures small and closely set; intervals feebly convex, micro-shagreened and rather frequently scattered with microscopic, somewhat asperate punctures; humeri and apices almost not modified; lateral margins weakly expanded laterad, visible from above.

Ratios of the lengths of pro-, meso- and metatarsomeres: 0.3, 0.2, 0.2, 0.2, 1.0; 0.8, 0.35, 0.3, 0.3, 1.0; 1.15, 0.6, 0.5, 1.1.

Male genitalia lost in the specimen of holotype (three other specimens are females).

Body length: 4.3-4.5 mm.

Holotype: ♂, Benakat, S. Sumatra, collected from a dead tree, *Swietenia macrophylla* (Meliaceae), 12-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 3 exs., 2-13-IX-1994, same locality and collector as for the holotype.

16 Platydema sp. (Fig. 18)

Specimens examined: 1 ex., Benakat, collected from the dead tree, *Swietenia macrophylla* (Meliaceae), VI-1995.

17 Platydema sp. (Fig. 19)

Specimens examined: 1 ex., Benakat, IX-1994.

-118 -

#### 18 Platydema benakatensis sp. nov. (Fig. 20)

Brown and partly slightly darkened, head piceous, pronotum and elytra dark green, margins of pronotum and elytra, scutellum and sutural portion of elytra, etc., dark brown; dorsal surface strongly, metallically shining, ventral surface feebly alutaceously shining; each surface almost glabrous. Ovate; strongly convex above.

Head transversely elliptical, noticeably concave medially; clypeus somewhat transversely elliptical and gently convex, micro-shagreened and frequently scattered with microscopic punctures, with feebly produced apex, fronto-clypeal border arcuate and not sulcate; genae feebly dilated, with outer margins gently rounded; frons somewhat triangularly depressed, almost impunctate; eyes somewhat securiform, obliquely rounded laterad and triangularly inlaid into head, diatone 2.2 times the width of eye diameter; vertex roundly emarginate anteriad, with a pair of long parallel horns, slightly inclined anteriad. Antennae gently clavate and reaching humeri, ratio of the length of each segment from basal to apical: 0.4, 0.2, 0.35, 0.4, 0.4, 0.35, 0.35, 0.35, 0.35, 0.6.

Pronotum 2.67 times as wide as long, widest at base; apex very slightly emarginate, finely rimmed; base sinuous on each side; sides gently inclined, lateral margins rounded apicad, finely rimmed; front angles rounded, hind angles subrectangular; disc transversely convex, steeply inclined apicad, obliquely impressed at base on each side, very slightly micro-shagreened, rather closely, finely punctate. Scutellum widely triangular with feebly rounded sides, very weakly micro-shagreened, sparsely scattered with microscopic punctures.

Elytra 1.38 times as long as wide, 3.1 times the length and slightly more than 1.12 times the width of pronotum, widest at basal 2/5; dorsum strongly convex, highest at basal 1/4; disc punctato-striate, with the punctures small and closely set; intervals feebly convex, micro-shagreened and slightly micro-reticulate, frequently scattered with microscopic punctures; humeri and apices almost not modified; lateral margins weakly expanded laterad, visible from above. Ratios of the lengths of pro-, meso- and metatarsomeres: 0.6, 0.4, 0.4, 0.4, 1.2; 0.7, 0.4, 0.4, 0.4, 1.25; 1.35, 0.55, 0.5, 1.3.

Male genitalia slender and almost straight, 1.1 mm in length and 0.2 mm in width; fused lateral lobes 0.4 mm in length, with simply spatulate apex.

Body length: 3.5-4.3 mm.

Holotype:  $\mathcal{J}$ , Benakat, S. Sumatra, collected from a dead tree, *Swietenia macrophylla* (Meliaceae), 5-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., 7-VI-1995, 2 exs., 12-VI-1995, 3 exs., 13-VI-1995, same locality and collector as for the holotype.

Notes: This new species somewhat resembles *Platydema yangmingensis* MASUMOTO, 1982, from Taiwan, but can be easily distinguished from the latter by the wider body, with strongly concave head and apical portion of pronotum steeply inclined.

- Ischnodactylus batesi CHEVROLAT, 1878 (Fig. 21) Specimen examined: 1 ex., Benakat, II-1983.
- Ischnodactylus bifasciatus GEBIEN, 1925 (Fig. 22)
  Specimens examined: 1 ex., Benakat, IX-1994; 4 exs., Seilalan, VI-1995.
- 21 Spiloscapha sp. (Fig. 23)Specimens examined: 1 ex., Seilalan, VI-1995.
- 22 Cyclobimorophus undulatus Ptc, 1916 (Fig. 24)
  (=Ceropria rufofasciata FAIRMAIRE, 1893)
  Specimens examined: 2 exs., Seilalan, VI-1995.
- 23 Ceropria induta (WIEDEMANN, 1819) (Fig. 25) Specimens examined: 2 exs., Benakat, II-1983; 4 exs., Benakat, collected from the dead tree, Swietenia macrophylla (Meliaceae), VI-1995.

- 120 -

### 森林総合研究所研究報告 第374号

- 24 Ceropria opulenta HAROLD, 1877 (Fig. 26) Specimens examined: 2 exs., Benakat, collected from a dead tree, Swietenia macrophylla (Meliaceae), VI-1995.
- 25 Ceropria medanensis GEBIEN, 1925 (Fig. 27)
  Specimens examined; 5 exs., Benakat, collected from a dead tree, Swietenia macrophylla (Meliaceae), VI-1995.
- 26 *Ceropria amplipennis* GEBIEN, 1925 (Fig. 28) Specimen examined: 1 ex., Benakat, VI-1995.
- 27 Pentaphyllus quadricornis GEBIEN, 1914 (Fig. 29) Specimens examined: 2 exs., Benakat, collected from polypores of *Ganoderma* sp. (Ganodermataceae), IX-1994.
- 28 Pentaphyllus biroi KASZAB, 1956 (Fig. 30) Specimens examined: 65 exs., Benakat, collected from polypores of Ganoderma sp. (Ganodermataceae), IX-1994.

### Tribe Leiochrini

- Leiochrinus rufofulvus WESTWOOD, 1883 (Fig. 31) Specimen examined: 1 ex., Benakat, III-1983.
- 30 Leiochrodes rufofulvus WESTWOOD, 1883 (Fig. 32) Specimens examined: 6 exs., Benakat, III-1983.
- Leiochrodes harpagon KASZAB, 1961 (Fig. 33) Specimens examined: 1 ex., Benakat, III-1983.

Tribe Ulomini

- 32 Cneocnemis sumatrensis MASUMOTO, 1985 (Fig. 34)
  Specimens examined: 12 exs., II-III-1983.
- 33 Cneocnemis haemorrhoa (FAIRMAIRE, 1893) (Fig. 35) Specimen examined: 1 ex., III-1983.
- 34 Uloma javana GEBIEN, 1912 (Fig. 36) Specimen examined: 1 ex., Benakat, II-1983.
- 35 Uloma contracta FAIRMAIRE, 1882 (Fig. 37) Specimens examined: 3 exs., Benakat, II-1983.
- 36 Uloma sp. (Fig. 38) Specimen examined: 1 ex., Benakat, IX-1994.
- 37 Uloma sp. (Fig. 39)Specimens examined: 4 exs., Benakat, IX-1994
- 38 Eutochina lateralis (Вонеман, 1858) (Fig. 40) Specimens examined: 2 exs., Benakat, II-1983; 11 exs., Palembang, VI-1995

#### Tribe Tenebrionini

- 39 Derosphaerus aeruginosus (FABRICIUS, 1787) (Fig. 41) Specimens examined: 1 ex., Benakat, II-1983; 2 exs., Benakat, VI-1995.
- 40 Derosphaerus viriditinctus FAIRMAIRE, 1882 (Fig. 42) Specimens examined: 1 ex., Benakat, III-1983; 3 exs., Seilalan, VI-1995.

Study on the Tenebrionid Beetles in South Sumatra (MASUMOTO et al.)

- 41 Derosphaerus sp. (Fig. 43) Specimen examined: 1 ex., Benakat, IX-1994.
- 42 Necrobioides sulcaticollis FAIRMAIRE, 1893 (Fig. 44) Specimen examined: 1 ex., Benakat, VI-1995.
- 43 Cryphaeus gazellae (FABRICIUS, 1798) (Fig. 45) Specimens examined: 2 exs., Benakat, II-III-1983; 5 exs., Benakat, VI-1995; 3 exs., Seilalan, VI-1995.
- 44 Toxicum quadricorne (FABRICLS, 1801) (Fig. 46) Specimens examined: 17 exs., Benakat, collected from the dead tree, Swietenia macrophylla (Meliaceae), IX-1994; 8 exs., Seilalan, VI-1995.
- 45 Promethis cupripennis (BOHEMANN, 1858) (Fig. 47) Specimen examined: 1 ex., Seilalan, VI-1995.
- 46 Promethis sumatrana KASZAB, 1988 (Fig. 48)
  Specimens examined: 3 exs., Benakat, VI-1995; 6 exs, Seilalan, VI-1995.
- 47 Promethis rectangula (MOTSCHULSKY, 1872) (Fig. 49)
  Specimens examined: 4 exs., Benakat, VI-1995; 1 ex., Seilalan, VI-1995.

#### Tribe Lupropini

- Luprops tebingensis KASZAB, 1939 (Fig. 50)
  Specimens examined: 3 exs., Benakat, II-1983; 1 ex., Benakat, VI-1995.
- 49 Luprops violaceipennis Prc, (Fig. 51)Specimens examined: 10 exs., Benakat, II-1983.
  - 50 Xanthalia benakatesis sp. nov. (Fig. 52) 70

Reddish brown, 5 or 6 apical segments of antennae, apical portions of femora, tibiae, 3 apical sternites of abdomen, etc., dark castaneous, each surface fairly strongly shining; dorsal surface sparsely clothed with long pale hairs.

Head subrhombical, irregularly and coarsely punctate, sparsely clothed with long hairs; clypeus somewhat transversely hexagonal, weakly depressed in basal portion, rather noticeably bent downwards in front, frontoclypeal border almost straight, coarsely impressed; genae obliquely, feebly raised, with outer margins produced antero-laterad; frons gently inclined forwards; eyes somewhat securiform, rounded laterad, diatone twice the width of an eye diameter; vertex weakly, irregularly impressed in middle. Antennae feebly thickened apicad, reaching base of pronotum, ratio of the length of each segment from basal to apical: 0.45, 0.2, 0.4, 0.35, 0.35, 0.35, 0.35, 0.35, 0.35, 0.35, 0.4, 0.4, 0.65.

Pronotum somewhat trapezoidal, 1.3 times as wide as long, widest at apical 1/3; apex almost straight and very feebly rimmed; base bisinuous and roughly grooved; sides rather steeply inclined, rounded in apical 1/3, rather noticeably constricted in basal 1/3, lateral margins finely rimmed; front angles rounded, hind angles obtuse with remarkably acute corners; disc moderately convex, strongly, rather closely punctate, sparsely clothed with long straight hairs. Scutellum somewhat pentagonal, irregularly sculptured.

Elytra 1.8 times as long as wide, 3.8 times the length and 1.75 times the width of pronotum, widest at the middle; dorsum gently convex, highest at basal 1/3, though slightly flattened in antero-medial portion; disc noticeably punctato-striate, the punctures often irregularly set and becoming smaller apicad, 5th striae impressed near base; intervals convex, smooth, sparsely with granules, each with a long straight hair; base rather noticeably emarginate on each side; humeri rounded; apices roundly produced posteriad.

-121 -

-122 -

Ratios of the lengths of pro-, meso- and metatarsomeres: 0.6, 0.4, 0.35, 0.65, 1.2; 0.9, 0.45, 0.4, 0.6, 1.1; 1.85, 0.5, 0.65, 1.25.

Body length: 5.6 mm.

Holotype: ♀, Benakat (nursery site), S. Sumatra, 22-II-1983, H. Makihara leg. (NSMT).

Notes: This new species resembles *Xanthalis curticollis* (FAIRMAIRE, 1893), from Annam, but can be distinguished from the latter by the larger body, with dorsal surface not densely but sparsely clothed with long hairs.

#### 51 Xanthalia sumatrensis sp. nov. (Fig. 53)

Dark castaneous, basal halves of antennae, head, pronotum, elytra and legs, reddish brown; each surface fairly strongly shining and almost glabrous.

Head subrhombical, rather closely and coarsely punctate; clypeus somewhat transversely hexagonal, depressed in basal portion, bent downwards in front, fronto-clypeal border almost straight and finely impressed; genae weakly raised, with outer margins rather noticeably produced laterad; frons gently inclined forwards, vaguely, longitudinally impressed on each side; eyes somewhat ovate, rounded laterad, slightly ridged along inner margins, diatone 3 times the width of eye diameter; vertex weakly impressed in middle between eyes. Antennae feebly thickened apicad, reaching humeri., ratio of the length of each segment from basal to apical: 0.5, 0.2, 0.45, 0.4, 0.4, 0.35, 0.35, 0.35, 0.45, 0.4, 0.6.

Pronotum somewhat trapezoidal, 1.25 times as wide as long, widest at apical 1/3; apex almost straight; base grooved, almost straight in middle, curved forwards in lateral portions; sides rather steeply inclined, subparallelsided in apical 1/3, noticeably constricted in basal 1/3, lateral margins finely rimmed; front angles rounded, hind angles remarkably acute; disc moderately convex, strongly, rather closely punctate. Scutellum triangular with rounded apex, sparsely scattered with microscopic punctures.

Elytra 1.67 times as long as wide, 4 times the length and 1.85 times the width of pronotum, widest at apical 3/7; dorsum gently convex, slightly flattened in antero-medial portion, highest at basal 2/7; disc noticeably punctato-striate, the punctures slightly transverse, becoming smaller apicad, 6th striae impressed near base; intervals convex, smooth though rather frequently scattered with microscopic punctures; base slightly bisinuous; humeri rounded; apices roundly produced posteriad.

Ratios of the lengths of pro-, meso- and metatarsomeres: 0.6, 0.4, 0.35, 0.65, 1.2; 0.9, 0.4, 0.3, 0.6, 1.05; 1.5, 0.5, 0.6, 1.25.

Body length: 5.3 mm.

Holotype: ♀, Benakat (nursery site), S. Sumatra, 24-II-1983, H. Makihara leg. (NSMT).

Notes: This new species resembles *Xanthalis cordicollis* KASZAB, 1940, from Indochina, but can be distinguished from the latter by its larger body with head and pronotum more closely punctate, hind angles of pronotum more acute and elytral intervals obviously though minutely punctate.

Tribe Cnodalonini

- 52 *Tetraphyllus corruscus* (FAIRMAIRE, 1882) (Fig. 54) Specimen examined: 1 ex., Benakat, II-1983.
- 53 Tetraphyllus orichalceus (FAIRMAIRE, 1882) (Fig. 55) (1985: det. as *T. politus* KASZAB, 1944)
  Specimen examined: 1 ex., Benakat, II-1983.
- 54 Tetraphyllus marginicollis (FAIRMAIRE, 1893) (Fig. 56)

Specimens examined: 2 exs., Benakat, II-1983; 2 ex., Benakat, IX-1994; 1 ex., Benakat, collected from the dead tree, *Swietenia macrophylla* (Meliaceae), VI-1995.

- 55 Tetraphyllus cyaneicollis (FAIRMAIRE, 1893) (Fig. 57) Specimen examined: 1 ex., Benakat, II-1983.
- 56 Artactes nigritarsis PASCOE, 1868 (Fig. 58) Specimens examined: 2 exs., Benakat, II-1983.
- 57 Artactes cyaneus FAIRMAIRE, 1893 (Fig. 59) Specimen examined: 1 ex., Benakat, IX-1994.
- 58 Hemicera splendens (WIEDEMANN, 1823) (Fig. 60) Specimens examined: 12 exs., Benakat, II-1983 (parts of *H. splendens*), 114 exs., Benakat, II-1983 (det. as *H. gloriosa* KRAATZ, 1880, nec KULZER, 1954); 1 ex., Benakat, IX-1994; 20 exs., Benakat, VI-1995; 1 ex., Seilalan, VI-1995.
- 59 Hemicera compacta FAIRMAIRE, 1882 (Fig. 61) Specimens examined: 8 exs., Benakat, II-1983.
- 60 Hemicera empatanda MASUMOTO, 1985 (Fig. 62) Specimens examined: 9 exs., Benakat, II-III-1983; 3 exs., Benakat, IX-1994; 5 exs., Benakat, collected from the dead tree, Swietenia macrophylla (Meliaceae), VI-1995.
- 61 *Hemicera tabatai* MASUMOTO, 1985 (Fig. 63) Specimens examined: 8 exs., Benakat, III-1983.
- 62 Hemicera cyanicollis KULZER, 1954 (Fig. 64) Specimens examined: 19 exs., Benakat, II-1983; 2 exs., Benakat, collected from the dead tree, Swietenia macrophylla (Meliaceae), VI-1995.
- 63 Hemicera alternicolor FAIRMAIRE, 1885 (Fig. 65) Specimens examined: 2exs., Benakat, IX-1994, 1 ex., Benakat, VI-1995.
- 64 Hemicera truncaticeps (FAIRMAIRE, 1893) (Fig. 66) Specimens examined: 1 ex., Benakat, II-1983; 1 ex., Benakat, IX-1994.
- 65 Hemicera vittulata (FAIRMAIRE, 1893) (Fig. 67) Specimens examined: 16 exs., Benakat, II-1983 (parts of H. splendens); 2 exs., Benakat, IX -1994, 2 exs., Benakat, VI-1995.
- 66 Euhemicera femoralis (Pic, 1921) (Fig. 68)
  Specimens examined: 5 exs., Benakat, II-1983; 9 exs., Benakat, VI-1995.
- 67 Nanohemicera sexmaculata Pic, 1925 (Fig. 69)
  Specimen examined: 1 ex., Benakat, VI-1995
- Eucyrtus pretiosus Lacordaire, 1859 (Fig. 70)
  Specimens examined: 17 exs., Benakat, VI-1995.

### 69 Plamius nobuchii sp. nov. (Fig. 71)

Piceous, head dark cyaneous, pronotum dark purple with lateral portions triangularly dark cyaneous, medial portion narrowly golden green, and postero-medial portion dark blue; elytra dark purple, with humeral portions and apico-lateral portions somewhat crescently dark cyaneous; head gently shining, pronotum and elytra strongly, metallically shining; legs and ventral surface moderately shining; each surface almost glabrous. Oblong-ovate; gently convex above.

Head somewhat transversely elliptical, rather flattened, micro-shagreened, rather closely punctate; clypeus narrowed and bent downwards apicad, fronto-clypeal border widely arcuate and finely sulcate; genae raised, with

#### 森林総合研究所研究報告 第374号

rounded outer margins; frons only feebly inclined forwards, slightly depressed on each side; eyes ovate, sulcate along inner margins, diatone about 3 times the width of eye diameter; vertex weakly convex, very slightly, irregularly impressed in middle. Antennae feebly thickened apicad, reaching basal 1/5, ratio of the length of each segment from basal to apical: 0.3, 0.2, 0.4, 0.35, 0.35, 0.35, 0.4, 0.4, 0.4, 0.4, 0.65.

Pronotum 1.27 times as wide as long, widest at the middle; apex widely, evenly emarginate, finely rimmed, the rim interrupted in middle; base widely bisinuous, rimmed on each side; sides gently inclined, lateral margins evenly rounded and coarsely rimmed, feebly and sparsely crenulate; front angles acutely projected apicad, hind angles rectangular with acute corners; disc gently convex, very weakly micro-shagreened, frequently and minutely punctate, transversely, somewhat bisinuously impressed at basal 1/4. Scutellum triangular, weakly micro-shagreened, sparsely scattered with microscopic punctures in basal portion.

Elytra 1.64 times as long as wide, 2.6 times the length and 1.17 times the width of pronotum, widest at the middle; dorsum moderately convex, highest at basal 1/3; disc with rows of rounded punctures, which are often very finely striated; intervals slightly convex, very weakly micro-shagreened and micro-reticulate, rather frequently scattered with microscopic punctures; lateral margins clearly grooved.

Male protibia incurved, with a tooth at apical 2/7 of inner face beneath; male metatibia weakly gouged in apical 2/3 of inner face. Ratios of the lengths of pro-, meso- and metatarsomeres: 0.35, 0.25, 0.25, 0.25, 0.25, 1.2; 0.4, 0.3, 0.25, 0.2, 1.25; 0.65, 0.35, 0.3, 1.35.

Male genitalia slender, 1.3 mm in length, 0.24 mm in width; fused lateral lobes thin, feebly curved in lateral view, 0.6 mm in length, with distinctly acute apex.

Body length: 5.5-7.3 mm.

Holotype: ♂, Benakat, S. Sumatra, 9-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., 13-VI-1995, 2 exs., 2-13-VI-1995, same locality and collector as for the holotype.

Notes: This new species somewhat resembles *Plamius pici* KULZER, 1951, from Borneo, but can be easily distinguished from the latter by its smaller body, with wider pronotum and differently coloured elytra.

#### 70 Plamius matsumotoi sp. nov. (Fig. 72)

Dark castaneous, pronotum feebly brassy, with each margin very slightly dark bluish; scutellum dark castaneous, elytra dark purple, with large iridescent patches in humeral and apico-lateral portions, sutural portions dark green with golden margins; head weakly shining, pronotum and elytra strongly, metallically shining, scutellum, legs and ventral surface moderately shining; each surface almost glabrous. Oblong-ovate; gently convex above.

Head somewhat transversely elliptical, rather flattened, partly micro-shagreened, rather closely punctate; clypeus wide, only weakly produced apicad and bent in front, fronto-clypeal border widely arcuate, feebly bisinuous in middle, finely sulcate; genae oblique, with outer margins obtusely produced; frons rather wide, only feebly inclined forwards; eyes somewhat ovate, distinctly sulcate along inner margins, diatone slightly more than 3 times the width of eye diameter; vertex simply, weakly convex. Antennae feebly thickened apicad, reaching humeri, ratio of the length of each segment from basal to apical: 0.35, 0.2, 0.35, 0.3, 0.3, 0.35, 0.35, 0.3, 0.3, 0.6; terminal segments ovate.

Pronotum 1.43 times as wide as long, widest at the middle; apex widely, evenly emarginate, finely rimmed, the rim widely interrupted in middle; base widely bisinuous, rimmed on each side; sides gently inclined, lateral margins evenly rounded and rimmed, feebly and sparsely crenulate; front angles angular, pointed antero-ventrad, hind angles obtuse with slightly angular corners; disc gently, broadly convex, very weakly micro-shagreened, frequently and minutely punctate, transversely, very weakly depressed in basal 1/4. Scutellum triangular with rounded sides, sparsely scattered with microscopic punctures.

-124 -

Elytra 1.5 times as long as wide, 3 times the length and 1.27 times the width of pronotum, widest at apical 3/7; dorsum rather strongly convex, highest at basal 2/7; disc with rows of rounded punctures, which are shallowly grooved in lateral portions, 5th striae impressed at base; intervals flat, very weakly micro-shagreened and micro-reticulate, sparsely scattered with microscopic punctures.



Fig. 2. Male genitalia of Plamius matsumotoi sp. nov.

Male protibia bent downwards apicad, gouged in apical 1/4 of ventral face; male mesotibia gouged in apical 1/3 of ventral face; male metatibia slightly curved inwards, with a haired projection near apex of inner face; ratios of the lengths of pro-, meso- and metatarsomeres: 0.35, 0.25, 0.25, 0.25, 0.25, 0.35, 0.35, 0.35, 0.35, 0.25, 1.25; 0.7, 0.35, 0.3, 1.3.

Male genitalia rather modified (see fig. 2), 1.4 mm in length, 0.28 mm in width, basal piece somewhat elongated rhombical and thin; fused lateral lobes slender, 0.9 mm in length, with distinctly acute apex.

Body length: 4.8-5.6 mm.

Holotype: *3*<sup>°</sup>, Benakat (nursery site), collected from a dead tree, *Albizia falcataria* (Leguminosae), S. Sumatra, 14-III-1983, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., 3-III-1983, 1 ex., 5-III-1983, 1 ex., 17-III-1983, 1 ex., 11-VI-1995, 1 ex., 11-15-VI-1995, same locality and collector as for the holotype.

Note: This new species somewhat resembles *Plamius planifrons* GEBIEN, 1921, from the Philippines, but can be easily distinguished from the latter by its smaller body, with terminal segments of antennae ovate and differently shaped head. The new one also resembles *P. koestneri* KULZER, 1951, from Sumatra, but is distinguished from the latter by its smaller body with dorsal surface differently coloured.

71 Plamius sp. (Fig. 73)

Specimen examined: 1 ex., Benakat, III-1983.

- 72 Plamius chalceus GEBIEN, 1927 (Fig. 74) Specimen examined: 1 ex., Benakat, III-1983.
- 73 Simalura yamatei MASUMOTO, 1985 (Fig. 75) Specimens examined: 9 exs., Benakat, III-1983.

#### 74 Simalura sumatrensis sp. nov. (Fig. 76)

Piceous, head dark green partly with purplish tinge medially, pronotum purplish with feeble dark bluish tinge, scutellum almost dark brassy, elytra dark coppery with purplish tinge, marginal portions of pronotum and elytra black; head and pronotum strongly shining, elytra rather strongly, somewhat metallically shining; each surface almost glabrous. Oblong ovate, gently convex above.

Head somewhat transverse, weakly raised posteriad, very feebly micro-shagreened, frequently scattered with minute punctures; clypeus somewhat transversely hexagonal, very weakly raised in middle, with apex feebly emarginate and rounded on each side, fronto-clypeal border widely arcuate, straight in middle, and finely impressed; genae gently dilated and raised, with outer margins weakly produced; frons short, feebly inclined forwards; eyes somewhat transversely securiform, gently convex laterad and roundly inlaid into head, clearly sulcate along inner margins, diatone 3 times the width of an eye diameter; vertex gently convex, with a vague impression in middle. Antennae almost lost in male specimen of the holotype (feebly thickened apicad in females of the paratypes), ratio of the length of each segment from basal to apical (only three basal segments are left in the

Pronotum 1.54 times as wide as long, widest at apical 2/5; apex almost straight, grooved on each side; base noticeably bisinuous, clearly rimmed; sides gently inclined, rounded in apical halves, only feebly constricted in basal portions, noticeably grooved along lateral margins, finely rimmed; front angles rounded, hind angles rectangular with acute corners; disc weakly convex, feebly, transversely depressed at basal 1/4, very weakly micro-shagreened, frequently scattered with small, shallow punctures. Scutellum subpentagonal with wide base, micro-shagreened, sparsely scattered with microscopic punctures.

Elytra 1.6 times as long as wide, 3.5 times the length and slightly more than 1.5 times the width of pronotum, widest at the middle; dorsum moderately convex, highest at basal 2/7; disc finely though clearly punctato-striate, the punctures rounded; intervals flat, rather frequently scattered with microscopic punctures; humeri not modified; apices feebly convex posteriad.

Male genitalia slender, 3.3 mm in length and 0.4 mm in width, basal piece gently curved in lateral view; fused lateral lobes prolonged in apical portion, 1.4 mm in length, with acute apex.

Body length: 8.7-10.7 mm.

Holotype: ♂, Benakat (natural forest), S. Sumatra, 3-III-1983, H. MAKIHARA leg. Paratypes: 2 exs., 5-III-1983, same locality and collector as for the holotype.

Notes: This new species somewhat resembles *Simalura semipurpurea* Pic, 1923, from Java, but can be easily distinguished from the latter by its pronotum which is less strongly constricted before the base.

#### 75 Simalura falsosoror sp. nov. (Fig. 77)

Dark brown, head purple, with clypeus weakly dark greenish, genae, medial portion of frons and vertex golden, pronotum copper-coloured with a pair of vague dark greenish patches medially, posterior 1/8 of pronotum and scutellum golden green, elytron coppery red with three iridescent patches, one at humeral, another at lateral, and the third at the postero-lateral portions, 1st and 2nd intervals also iridescent; dorsal surface strongly, metallically shining, ventral surface moderately shining; each surface almost glabrous. Rather ovate; strongly convex above.

Head somewhat transversely elliptical, flattened, rather frequently, irregularly scattered with small punctures; clypeus somewhat transversely hexagonal, very weakly raised in middle, with apex slightly emarginate and rounded on each side, fronto-clypeal border very slightly arcuate widely in middle, finely sulcate, rather noticeably impressed on each side; genae weakly dilated, feebly depressed posteriad, with outer margins very feebly produced before eyes; frons rather wide, weakly inclined forwards; eyes somewhat triangular, gently convex laterad and roundly inlaid into head, sulcate along inner margins in posterior portions, diatone 3 times the width of eye diameter; vertex only weakly convex, with a vague impression in middle. Antennae clavate and reaching basal 1/3 of pronotum. Ratio of the length of each segment from basal to apical: 0.4, 0.2, 0.3, 0.3, 0.3, 0.35

Pronotum 1.5 times as wide as long, widest at base; apex almost straight, grooved on each side; base widely triangular, very slightly arcuate on each side, very finely rimmed, the rim interrupted in middle; sides gently inclined, noticeably grooved along lateral margins; front angles rounded, hind angles rectangular with acutely projected corners; disc gently raised apicad, weakly impressed in V-shape at basal 1/3, frequently scattered with small, rounded punctures. Scutellum triangular, flattened, scattered with a few microscopic punctures.

Elytra 1.4 times as long as wide, 3.65 times the length and slightly more than 1.56 times the width of

-126 -

pronotum, widest at the middle; dorsum strongly convex, highest at basal 1/3; disc finely though clearlypunctatostriate, the punctures rounded; intervals very slightly convex, frequently scattered with minute punctures; humeri not modified; apices very weakly produced posteriad; lateral margins strongly grooved.

Ratios of the lengths of pro-, meso- and metatarsomeres: 0.4, 0.3, 0.3, 0.25, 1.2; 0.4, 0.3, 0.3, 0.3, 1.2; 0.65, 0.4, 0.35, 1.25.

Body length: ca. 4.3 mm.

Holotype: ♀, Benakat (agroforestry site), S. Sumatra, 2-III-1983, H. MAKIHARA leg. (NSMT).

Notes: This new species somewhat resembles *Simalura soror* KULZER, 1951, from Sibuyan, but can be distinguished from the latter by its elytra, which have no green and violet stripes but have iridescent patches.

- 76 Gauromaia dives PASCOE, 1866 (Fig. 78) Specimens examined: 2 exs., Benakat, III-1983.
- Gauromaia hasselti FAIRMAIRE, 1882 (Fig. 79)Specimen examined: 1 ex., Benakat, II-1983.
- 78 Gauromaia semicyanea FAIRMAIRE, 1893 (Fig. 80) Specimens examined: 2 exs., Benakat, II-1983.
- 79 Gauromaia sp. (Fig. 81)Specimens examined: 2 exs., Benakat, collected by the light trap, II-III- 1983.
- Gauromaia variicolor Pic, 1922 (Fig. 82)
  Specimens examined: 1 ex., Benakat, III-1983; 1 ex., Benakat, VI-1995.
- 81 *Phaedis semiarmatus* FAIRMAIRE, 1893 (Fig. 83) Specimen examined: 1 ex., Benakat, III-1983.

### 82 Phaedis elicitus sp. nov. (Fig. 84)

Dark castaneous, apical half of head dark green, basal half of head and pronotum deep greenish blue with purplish reflexion under a certain light, scutellum piceous, elytra copper-coloured with feebly brassy tinge, legs piceous; dorsal surface strongly, metallically shining, ventral surface feebly alutaceously shining; each surface almost glabrous. Oblong; rather strongly convex above.

Head almost rounded, weakly raised posteriad, very weakly micro-shagreened, scattered with small punctures, which become denser apicad; clypeus somewhat trapezoidal, very weakly raised in middle, with apex very slightly emarginate, fronto-clypeal border almost straight in middle, bent apicad on each side, and finely sulcate; genae gently dilated, feebly depressed posteriad before eyes, with outer margins gently rounded; frons moderately inclined forwards, very weakly depressed on each side; eyes somewhat short securiform, weakly convex laterad and triangularly inlaid into head, noticeably sulcate along postero-internal margins, diatone twice the width of eye diameter; vertex gently convex, without modification. Antennae clavate and reaching the middle of pronotum, ratio of the length of each segment from basal to apical: 0.35, 0.2, 0.35, 0.25, 0.25, 0.35, 0.

Pronotum 1.5 times as wide as long, widest slightly behind the middle; apex widely emarginate, rimmed on each side; base widely bisinuous, clearly bordered and rimmed; sides gently inclined, lateral margins evenly arcuate, very slightly sinuous before base, clearly bordered and finely rimmed; front and hind angles rectangular, the former with rounded corners and the latter angulate; disc gently, transversely convex, very slightly micro-shagreened, rather closely punctate, the punctures fine and shallow. Scutellum triangular with feebly rounded sides, weakly depressed, almost impunctate.

Elytra 1.62 times as long as wide, 3 times the length and slightly more than 1.2 times the width of pronotum,

widest at apical 2/5; dorsum rather strongly convex, highest at basal 1/3; disc with rows of punctures, which are rather closely set and sometimes connected with one another by fine striae in inner portion; intervals almost flat, frequently scattered with microscopic punctures; humeri feebly swollen; apices very weakly produced posteriad; lateral margin grooved between humeral portion and area before apex.

Profemur acutely toothed at apical 2/3 of anterior face; ratios of the lengths of pro-, meso- and metatarsomeres: 0.4, 0.3, 0.3, 0.3, 1.2; 0.45, 0.35, 0.3, 0.35, 1.25; 0.7, 0.4, 0.4, 1.3.

Body length: ca. 8.75 mm.

Holotype: ♀, Benakat (plantation site), S. Sumatra, 9-II-1983, H. MAKIHARA leg. (NSMT).

Notes: This new species somewhat resembles *Phaedis elysius* PASCOE, 1866, from Borneo, but can be easily distinguished from the latter by its slenderer body.

Specimen examined: 1 ex., Benakat, II-1983, affin. P. siporana BLAIR, 1929

84 Thesilea ariharai MASUMOTO, 1985 (Fig. 86) Specimens examined: 7 exs., Benakat, collected from a cutting tree, Albizia falcataria (Leguminosae), II-III-1983; 1 ex., Benakat, VI-1995.

85 Psydus sinuaticollis Pic, 1923 (Fig. 87)
 Specimen examined: 1 ex., Benakat, III-1983.

Androsus corporaali Kullzer, 1951 (Fig. 88)
 Specimens examined: 3 exs., Benakat, II-1983; 1 ex., Benakat, VI-1995.

87 Tetragonomenes subcostatus (FAIRMAIRE, 1893) (Fig. 89) Specimen examined: 1 ex., Benakat, III-1983.

### 88 Tetragonomenes benakatensis sp. nov. (Fig. 90)

Brownish black, dorsal surface dark blue; each surface gently, sericeously shining and almost glabrous. Oblong ovate, rather strongly convex.

Head subdecagonal, raised posteriad, micro-shagreened, frequently punctate; clypeus rather transverse, weakly convex above, impressed before fronto-clypeal border, which is widely arcuate and finely sulcate, apex weakly emarginate, with each side rounded; genae gently dilated, weakly depressed postero-internal portions before eyes, with outer margins weakly produced and raised; frons rather wide, gently convex forwards; eyes somewhat ovate, deeply sulcate along inner margins, diatone about 2.5 times the width of eye diameter; vertex not modified. Antennae rather clavate. Ratio of the length of each segment from basal to apical: 0.35, 0.2, 0.3, 0.35, 0.35, 0.35, 0.35, 0.35, 0.35, 0.55.

Pronotum 1.25 times as wide as long, widest at base; apex rather noticeably produced and arched apicad; base widely bisinuous, thickly rimmed; sides moderately inclined, lateral margins slightly narrowed towards base in basal 2/3, rounded in apical 1/3, boldly grooved, finely rimmed and irregularly crenulate; front angles rounded, hind angles almost rectangular with acute corners; disc rather strongly convex, micro-shagreened, frequently scattered with small punctures. Scutellum semicircular, very weakly concave, micro-shagreened, sparsely scattered with microscopic punctures.

Elytra 1.75 times as long as wide, 2.75 times the length and 1.2 times the width of pronotum, widest at apical 3/7; dorsum rather strongly convex, highest at basal 2/7; disc finely punctato-striate, the punctures small, shallow and rounded, 5th striae impressed in basal portions; intervals feebly convex, very feebly, transversely rippled, micro-shagreened, scattered with small punctures; humeri and apices normal.

Legs without peculiarities, ratios of the lengths of pro-, meso- and metatarsomeres: 0.35, 0.2, 0.2, 0.3, 1.2;

-128 -

<sup>83</sup> Phaedis sp. (Fig. 85)

0.45, 0.3, 0.25, 0.3, 1.25; 0.7, 0.3, 0.3, -.

Male genitalia somewhat oblong ovate, 0.6 mm in length and 0.23 mm in width, almost flat; fused lateral lobes 0.18 mm in length, triangular in dorsal view, feebly curved in lateral view.

Body length: ca. 5.0 mm.

Holotype: J, Benakat (nursery site), S. Sumatra, 2-III-1983, H. MAKIHARA leg. (NSMT).

Notes: This new species somewhat resembles *Tetragonomenes rufiventris* (KASZAB, 1964), from Amami Is., but can be distinguished from the latter by its wider body, with dark bluish dorsal surface, lateral margins of pronotum crenulate, elytra more finely punctato-striate and intervals more frequently punctate.

- 89 Camarimena sp. (Fig. 91) Specimen examined: 1 ex., Seilalan, VI-1995.
- 90 Pseudonautes viridicollis Pic, 1918 (Fig. 92)
  Specimens examined: 1 ex., Benakat, III-1983; 2 exs., Benakat, VI-1995.
- Pseudonautes sp. (Fig. 93)
  Specimen examined: 1 ex., Benakat, II-1983, affin. P. sinuatipes Pic, 1918.
- 92 Pseudonautes purpureolineatus Pic, 1918 (Fig. 94) Specimen examined: 1 ex., Benakat, VI-1995.
- 93 Pseudonautes vagevittatus FAIRMAIRE, 1893 (Fig. 95) Specimens examined: 4 exs., Benakat, IX-1994: 3 exs., Benakat, collected from the dead tree, Swietenia macrophylla (Meliaceae), VI-1995.
- 94 Falsonannocerus makiharai MASUMOTO, 1985 (Fig. 96) Specimens examined: 8 exs., Benakat, II-III-1983; 3 exs., Benakat, VI-1995.

### 95 Falsonannocerus benakatensis sp. nov. (Fig. 97)

This new species somewhat resembles *Falsonannocerus tsuyukii* MASUMOTO, 1986, from northwestern Thailand, but can be distinguished from the latter by the following characteristics.

Body larger (5.5-6.25 mm), robuster and more convex dorsad. Head more transverse; genae with outer margins not roundly produced but oblique in front; eyes subsecuriform, slightly more transverse, diatone about 3.4 times the width of eye diameter. Antennae feebly claviform, reaching basal 1/3 of pronotum, ratio of the length of each segment from basal to apical: 0.28, 0.2, 0.24, 0.23, 0.19, 0.23, 0.25, 0.24, 0.24, 0.26, 0.4.

Pronotum 1.2 times as wide as long, distinctly widened laterad; apical portion noticeably arched and produced forwards; front angles subrectangular with rounded corners and visible from above; hind angles obtuse with angulate corners; lateral margins minutely crenulate; disc coarsely rugulose in anterior 2/3, roughly punctate in posterior 1/3.

Elytra shorter and wider, 1.75 times as long as wide, 2.8 times the length and 1.43 times the width of pronotum; dorsum highest at basal 2/5; disc more strongly punctato-striate, the striae deeper and the punctures larger; intervals more strongly convex, each with a row of minute granules; humeri less noticeably swollen.

Legs without peculiarities; ratios of the lengths of pro-, meso- and metatarsomeres: 0.25, 0.23, 0.22, 0.23, 1.2; 0.26, 0.23, 0.22, 0.24, 1.24; 0.6, 0.3, 0.27, 1.28.

Male genitalia elongated fusiform, feebly arcuate in lateral view, 1.35 mm in length, 0.27 mm in width; fused lateral lobes 0.35 mm in length, with somewhat nib-shaped apex.

Holotype:  $\mathcal{S}$ , Benakat, (nursery site), S. Sumatra, 7-III-1983, H. MAKIHARA leg. (NSMT). Paratype: 1 ex., same data as for the holotype.

Notes: From South Sumatra, another species belonging to the genus, F. makiharai MASUMOTO, 1985, has been

-130 -

#### 森林総合研究所研究報告 第374号

known, whose head and pronotum are minutely granulate and the elytral intervals are distinctly tuberculate.

96 *Chaetopisia sumatrensis* MASUMOTO, 1985 (Fig. 98) Specimens examined: 6 exs., Benakat, II-III-1983.

### 97 Allopezus tsuge sp. nov. (Fig. 99)

This new species rather resembles *Allopezus subcarinatus* (Pic, 1921), from Kina-Baru in Borneo, but is distinguishable from the latter in the following characteristics.

Body slightly narrower and more strongly convex above, covered with a secretion and scale-like hairs. Clypeus less depressed; eyes shorter, diatone about 3.2 times the width of eye diameter. Antennae slightly thickened apicad, reaching base of elytra, ratio of the length of each segment from basal to apical: 0.3, 0.2, 0.4, 0.23, 0.22, 0.24, 0.26, 0.3, 0.3, 0.3, 0.4.

Pronotum 1.33 times as wide as long, widest at the middle; front angles more sharply protruded apicad; lateral margins gently arcuate and obviously tri-denticulate; base more clearly bordered.

Elytra 1.45 times as long as wide, 2.75 times the length and 1.3 times the width of pronotum; disc punctatostriate, upper edge of each puncture less noticeably granulate on each side; intervals feebly alutaceous, aciculate and micro-granulate, each interval with tubercles, which are more strongly projected dorsad (in case of *A. subcarinatus*, odd intervals with tubercles less strongly projected).

Legs not modified; ratios of the lengths of pro-, meso- and metatarsomeres: 0.33, 0.24, 0.23, 0.21, 1.2; 0.31, 0.23, 0.25, 0.26, 1.22; 0.45, 0.31, 0.28, 1.3.

Body length: 5.65 mm.

Holotype: ♀, Benakat (plantation site), S. Sumatra, 9-II-1983, H. MAKIHARA leg. (NSMT). Paratype: 1 ex., Benakat (nursery site), 2-III-1983, H. MAKIHARA leg.

#### 98. Allopezus shigeoi sp. nov. (Fig. 100)

This new species somewhat resembles *Allopezus satoi* MASUMOTO, 1986, from North Borneo, but can be distinguished from the latter by the following characteristics.

Body narrower, surfaces covered with a secretion. Genae with more rounded outer margins; eyes larger, diatone slightly less than twice the width of an eye diameter. Antennae more weakly thickened apicad, reaching humeri. Ratio of the length of segments from basal to apical: 0.33, 0.2, 0.4, 0.25, 0.3, 0.4, 0.42, 0.52, 0.5, 0.53, 0.65.

Pronotum about 1.3 times as wide as long, widest at the middle; lateral margins gently arcuate and with two or three less conspicuous denticules; base clearly bordered in middle; disc closely covered with shallow umbilicate punctures.

Elytra 1.6 times as long as wide, 2.8 times the length and 1.3 times the width of pronotum; dorsum more strongly convex, highest at basal 1/3; disc distinctly punctato-striate, upper edges of the punctures being microscopically granulate; intervals weakly convex, somewhat alutaceous and feebly wrinkled, each with a row of minute tubercles, which are clothed with scale-like hairs.

Legs without peculiarities. Ratios of the lengths of pro-, meso- and metatarsomeres: 0.28, 0.25, 0.23, 0.26, 1.2; 0.29, 0.26, 0,24, 0.22, 1.35; 0.63, 0.34, 0.33, 1.32.

Male genitalia slender, 1.55 mm in length and 0.28 mm in width; fused lateral lobes about 0.6 mm in length, with distinctly spatulate apices.

Body length: 5.3 mm.

Holotype: J, Benakat, (natural forest), S. Sumatra, 19-III-1983, H. MAKIHARA leg. (NSMT).

#### Tribe Amarygmini

99 Platolenes sp. (Fig. 101).

Specimen examined: 1 ex., Benakat, collected from dead tree, *Swietenia macrophylla* (Meliaceae), VI-1995. affin. *P. sanguinanus* (FAIRMAIRE, 1893)

### 100 Platolenes sp. (Fig. 102)

Specimens examined: 1 ex., Benakat, II-1983 (det. in 1985 as Platydema detersum (WALKER, 1858)).

#### 101 Elixota benakatensis sp. nov. (Fig. 103)

Blackish brown, head violet, pronotum with postero-medial portion purple, whose outer margin is surrounded by golden, green and blue, lateral margins of pronotum with purplish spots, scutellum dark green, elytron dark copper-coloured, with a large iridescent, subtriangular patch lying in area from base to apex, whose inner margin and central part are dark greenish, a smaller iridescent, crescent-shaped patch lying area across 7th interval to lateral margin in the middle, and also with a somewhat comma-shaped greenish blue part lying area from basal 1/7 to apical 3/7 and across 4th-7th intervals; dorsal surface strongly, metallically shining, ventral surface and legs moderately shining; each surface almost glabrous. Elongated ovate; strongly convex above.

Head almost vertical against pronotum, transversely elliptical, microscopically punctate; clypeus transversely hexagonal, feebly, transversely convex, fronto-clypeal border straight, finely sulcate; genae obliquely raised, outer margins only weakly produced; frons very weakly impressed medially; eyes subsecuriform, diatone 0.8 times the width of eye diameter. Antennae slightly thickened apicad, reaching basal 1/4 of elytra, ratio of the length of each segment from basal to apical: 0.35, 0.2, 0.38, 0.37, 0.35, 0.35, 0.35, 0.35, 0.32, 0.41.

Pronotum trapezoidal in dorsal view, 1.6 times as wide as long, widest at base; apex slightly emarginate, finely rimmed; base feebly bisinuous, obliquely impressed on each side; sides rather steeply inclined, with lateral margins bordered and visible from above; front angles subrectangular, hind angles obtuse; disc broadly convex, almost smooth, scattered with small punctures, and also with microscopic punctures (visible at 20 X). Scutellum triangular, very slightly convex medially, scattered with microscopic punctures.

Elytra 1.63 times as long as wide, 4 times the length and 1.24 times the width of pronotum, widest at basal 1/3; dorsum strongly convex, highest at basal 1/4; disc with rows of punctures, the punctures sparsely set, those in antero-medial part often longitudinally impressed; 4th-6th rows more or less impressed near base; intervals almost flat or very slightly convex, very weakly micro-shagreened, sprarsely scattered with microscopic punctures; humeri and apices without peculiarities.

Male tibiae with apical portions of inner faces haired; atios of the lengths of pro-r, meso- and metatarsomeres: 0.62, 0.47, 0.33, 0.35, 1.2; 1.1, 0.53, 0.49, 0.42, 1.26; 2.39, 0.8, 0.6, 1.29.

Male genitalia elongated fusiform, 2.4 mm in length and 0.44 mm in width, noticeably curved in lateral view; fused lateral lobes 0.6 mm in length, with distinctly spatulate apex.

Body length: ca. 8.6 mm.

Holotype: J., Benakat (nursery site), S. Sumatra, 1-III-1983, H. MAKIHARA leg. (NSMT).

Notes: This new species somewhat resembles *E. trichopus* (KASZAB, 1941), from Formosa, but can be distinguished from the latter by its smaller body with differently coloured elytra.

102 Elixota ohtai MASUMOTO, 1985 (Fig. 104)

Specimens examined: 4 exs., Benakat, II-III-1983.

### 森林総合研究所研究報告 第374号

### 103 Elixota selatana sp. nov. (Fig. 105)

Brownish black, dorsal surface with dark coppery tinge, areas around punctures on elytra dark cyaneous, pronotum with a pair of dark greenish spots in middle in an individual; posterior portion of head and pronotum rather strongly and metallically shining, scutellum and elytra rather weakly, metallically shining; each surface almost glabrous. Oblong ovate; strongly convex above.

Head transversely elliptical, micro-shagreened, frequently and minutely punctate; clypeus transversely oblong, fronto-clypeal border straight and clearly impressed; genae oblique, with slightly produced outer margins; frons vertical and somewhat triangular; eyes large, obliquely inlaid into head, diatone about 2/3 times the width of eye diameter; vertex rather broad. Antennae (in female) gently thickened apicad, reaching basal 1/6 of elytra, ratio of the length of each segment from basal to apical: 0.45, 0.2, 0.35, 0.25, 0.25, 0.3, 0.3, 0.3, 0.3, 0.3, 0.5.

Pronotum 1.7 times as wide as long, widest at base; apex very slightly produced forwards; base rounded, feebly sinuous on each side; sides steeply inclined, with lateral margins rounded apicad and finely rimmed, the rims in basal 1/4 visible from above; front angles almost rectangular, hind angles feebly obtuse; disc strongly convex, almost hemispherical in dorsal view, feebly micro-shagreened, frequently, minutely punctate, with a pair of oblique impressions at base. Scutellum triangular, feebly micro-shagreened, sparsely scattered with microscopic punctures.

Elytra 1.8 times as long as wide, 3.4 times the length and 1.12 times the width of pronotum, widest at basal 2/5; dorsum strongly convex, highest at basal 2/7; disc punctato-striate, the striae fine and often interrupted, the punctures very sparsely set; intervals very slightly convex, micro-shagreened, rather frequently scattered with minute, rounded punctures; humeri and apices not modified.

Ratios of the lengths of pro-, meso- and metatarsomeres: 0.4, 0.3, 0.3, 0.35, 1.2; 0.9, 0.5, 0.4, 0.35, 1.25; 2.4, 0.9, 0.6, 1.25.

Body length: 5.6-6.5 mm.

Holotype: ♀, Benakat (nursery site), S. Sumatra, 9-II-1983, H. MAKIHARA leg. (NSMT). Paratype: 1 ex., 25-II-1983, same locality and collector as for the holotype.

Notes: This new species somewhat resembles *Elixota punctata* Pic, 1922, from China, but can be distinguished from the latter by its smaller and narrower body with elytral punctures finer and obviously striated.

104 Amarygmus splendidulus (FABRICIUS, 1801) (Fig. 106)

Specimens examined: 20 exs., Benakat, II-III-1983; 5 exs., collected from dead tree, *Swietenia macrophylla* (Meliaceae), Benakat, VI-1995.

- 105 Amarygmus katoi MASUMOTO, 1985 (Fig. 107) Specimens examined: 10 exs., Benakat, collected from under bark of dead tree, Albizia falcataria (Leguminosae), II-1983.
- 106 Amarygmus picitarsis FAIRMAIRE, 1882 (Fig. 108) Specimen examined: 1 ex., Benakat, II-1983.
- 107 Amarygmus cuprarius (WEBER, 1801) (Fig. 109)
  Specimens examined: 2 exs., Benakat, III-1983; 1 ex., Benakat, VI-1995.

#### 108 Amarygmus pseudopicitarsis sp. nov. (Fig. 110)

This new species resembles *A. picitarsis* FAIRMAIRE, 1882, from Sumatra, but can be separated from the latter by the following characteristics.

Body smaller (ca. 7.5 mm) and shorter, more strongly convex above; body almost dark copper-coloured in basal 1/4; anterior half of head golden greenish, pronotum with transverse dark greenish patch which is wide in

-132 -

the middle, apical and lateral margins greenish golden, areas surrounding basal impressions dark green, scutellum golden green, elytra with sutural portion and lateral margins dark green, narrow areas along striae golden greenish, 4th and 6th intervals, etc., greenish golden; dorsal surface metallically shining, legs and ventral surface moderately shining; each surface almost glabrous.

Head less coarsely and sparsely punctate; clypeus wider and shorter, more clearly bordered from frons, which is somewhat T-shaped and weakly depressed; eyes more strongly produced ventrad. Antennae shorter, reaching humeri, ratio of the length of each segment from basal to apical: 0.59, 0.2, 0.57, 0.32, 0.35, 0.33, 0.34, 0.29, 0.29, 0.27, 0.39.

Pronotum narrower, subtrapezoidal, twice as wide as long, widest at base; apex less noticeably emarginate, very slightly produced in middle, finely rimmed; base bisinuous; sides rather steeply inclined, with lateral margins rimed, the rims in anterior halves hardly visible from above; front angles less acute, hind angles not obtuse but almost rectangular; disc less closely, minutely punctate. Scutellum triangular, very feebly convex, scattered with microscopic punctures.

Elytra more remarkably rounded, 1.3 times as long as wide, 3.7 times the length and 1.37 times the width of pronotum, widest at basal 4/11; dorsum more strongly convex, highest at basal 1/3; disc more clearly punctatostriate, the punctures not elongate but rounded; intervals very feebly elevated and weakly wrinkled, scattered with microscopic punctures, which are comparatively large and more clearly punctured; humeri and apices not modified.

Ratios of the lengths of pro-, meso- and metatarsomeres: 0.5, 0.35, 0.3, 0.32, 1.2; 0.62, 0.36, 0.34, 0.32, 1.22; 2.22, 0.69, 0.33, 1.18.

Holotype: J, Benakat (nursery site), S. Sumatra, 14-III-1983, H. MAKIHARA leg. (NSMT).

#### 109 Amarygmus benakatensis sp. nov. (Fig. 111)

This new species resembles A. *picitarsis* FAIRMAIRE, 1882, from Sumatra, but can be separated from the latter by the following characteristics.

Male: Body smaller (ca. 7.2 mm) and shorter. Almost dark copper-coloured, dorsal surface brassy and strongly, metallically shining, ventral surface and legs moderately shining; almost glabrous except for ventral surfaces of pro- and mesofemora in male, and also except for pro-, meso- and metasterna in male.

Head slightly narrower, less coarsely and sparsely punctate; clypeus narrower and shorter, more convex forwards, fronto-clypeal border clearly impressed; genae smaller and oblique; frons narrower, less steeply inclined forwards; eyes more strongly produced ventrad, diatone about 1/3 times the width of eye diameter; antennae slightly shorter, reaching basal 1/6 of elytra, ratio of the length of each segment from basal to apical: 0.51, 0.2, 0.53, 0.38, 0.36, 0.34, 0.32, 0.32, 0.32, 0.29, 0.38.

Pronotum wider, twice as wide as long, widest very slightly before the base; apex simply emarginate and finely rimmed; base more noticeably bisinuous; sides rather steeply inclined, with lateral margins more strongly narrowed apicad, finely rimmed, though anterior halves of the rims are hardly visible from above; front angles subrectangular, hind angles almost rectangular with corners slightly projected posteriad; disc less closely, minutely punctate. Scutellum triangular with slightly rounded sides, very feebly convex, scattered with microscopic punctures.

Elytra more remarkably rounded, 1.35 times as long as wide, 3.85 times the length and 1.42 times the width of pronotum, widest at basal 2/5; dorsum slightly less strongly convex, highest at basal 1/3, posterior half very weakly flattened; disc finely punctato-striate, the punctures mostly rounded; intervals very feebly elevated, scattered with microscopic punctures, which are comparatively large and more clearly punctate; humeri and apices not modified.

#### 森林総合研究所研究報告 第374号

Pro-, meso- and metasterna noticeably haired medially in male; antero-ventral sides of male profemora and posterior sides of mesofemora distinctly haired. Ratios of the lengths of pro-, meso- and metatarsomeres: 0.31, 0.27, 0.25, 1.2; 0.65, 0.35, 0.36, 0.32, 1.21; 1.79, 0.56, 0.33, 1.2.

Male genitalia lost in the holotype.

Body length: 7.0-7.5 mm.

Holotype: ♂, Benakat (nursery site), S. Sumatra, 8-19-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 3 exs., same data as for the holotype.

Notes. This new species resembles A. *picitarsis* in dorsal view as mentioned above, but the characteristics of haired legs and sterna in the male suggest a relationship with the genus *Platolenes*.

#### 110 Amarygmus metallicus PERTY, 1831 (Fig. 112)

Specimens examined: 57 exs., Benakat, collected from the dead tree, *Swietenia macrophylla* (Meliaceae), VI-1995.

#### 111 Amarygmus powanus sp. nov. (Fig. 114)

Brownish black, head feebly dark blue, pronotum golden castaneous in anterior portion and dark cyaneous green in posterior portion, scutellum dark blue, elytra copper-coloured with a brassy tinge; dorsal surface metallically though feebly sericeously shining, legs and ventral surface moderately shining; each surface almost glabrous. Almost ovate and strongly convex above.

Head transversely elliptical, micro-shagreened, fairly frequently, minutely punctate; clypeus semicircular, with apex slightly reflexed, fronto-clypeal border almost straight and finely sulcate; genae obliquely, weakly ridged; frons short and almost triangular; eyes very large and transverse, though deeply invaded by genae, diatone about 1/9 times the width of an eye diameter; vertex not modified. Antennae subfiliform, reaching basal 1/4 of elytra, ratio of the length of each segment from basal to apical: 0.5, 0.2, 0.45, 0.3, 0.35, 0.35, 0.45, 0.4, 0.4, 0.4, 0.5.

Pronotum about twice as wide as long, widest at base; apex very slightly produced apicad, finely rimmed; base widely rounded though rather noticeably sinuous on each side; sides rather steeply inclined, with lateral margins rounded apicad, finely rimmed and visible from above; front angles almost rectangular with rounded corners, hind angles obtuse but angulate; disc broadly and gently convex, weakly micro-shagreened, rather frequently scattered with small, rounded punctures, with a pair of shallow oblique impressions at base. Scutellum triangular, sparsely scattered with microscopic punctures.

Elytra 1.38 times as long as wide, 4 times the length and 1.45 times the width of pronotum, widest at basal 3/7; dorsum strongly convex, highest at basal 2/7; disc finely and deeply punctato-striate, the punctures small and almost rounded; intervals very feebly convex, weakly micro-shagreened and micro-reticulate, rather frequently scattered with small punctures; humeri and apices without peculiarities.

Male metatibiae feebly incurved apicad; ratios of the lengths of pro-, meso- and metatarsomeres: 0.5, 0.4, 0.35, 0.3, 1.2; 1.2, 0.65, 0.45, 0.3, 1.25; 2.65, 0.75, 0.4, 1.3.

Male genitalia elongated fusiform, 1.4 mm in length and 0.27 mm in width, basal piece strongly curved in lateral view; fused lateral lobes 0.38 mm in length, with noticeably spatulate apex. Body length: 4.7-5.0 mm.

Holotype: ♂, Benakat, S. Sumatra, 2-13-IX-1994, H. MAKIHARA leg. (NSMT). Paratype: 1 ex., 2-III-1983, same locality and collector as for the holotype.

Note: This new species somewhat resembles *Amarygmus lucens* KASZAB, 1980, from Sri Lanka, but can be distinguished from the latter by its smaller body with different coloration, different ratios of the lengths of antennal and metatarsal segments, more frequently punctured pronotum and obviously punctato-striate elytra.

-134 -

### 112 Amarygmus powanpowaus sp. nov. (Fig. 113)

Brownish black, head except for clypeus dark green, major anterior portion of pronotum dark brassy, posterior portion of pronotum bluish with small areas around oblique basal impressions blackish, scutellum violet with darkened lateral portions, elytra dark green with brassy tinge, apical portions of 11th antennal segments pale yellow; dorsal surface metallically though feebly sericeously shining, legs and ventral surface moderately shining; each surface almost glabrous. Almost ovate and strongly convex above.

Head transversely elliptical, very weakly micro-shagreened, fairly frequently, minutely punctate; clypeus oblong, fronto-clypeal border very slightly arcuate and finely sulcate; genae obliquely, weakly ridged; frons short and almost triangular, fairly steeply inclined; eyes very large, broadly inlaid into head, deeply invaded by genae, diatone about 1/11 times the width of an eye diameter; vertex not modified. Antennae subfiliform, reaching basal 3/8 of elytra, ratio of the length of each segment from basal to apical: 0.4, 0.2, 0.45, 0.35, 0.35, 0.3, 0.35, 0.3, 0.3, 0.3, 0.55.

Pronotum about twice as wide as long, widest at base; apex very slightly emarginate, very weakly sinuous on each side, finely rimmed; base widely arcuate posteriad, very feebly sinuous on each side; sides rather steeply inclined, with lateral margins rounded apicad, finely rimmed, the rims in basal 2/3 visible from above; front and hind angles obtusely rectangulate, the former with rounded corners and the latter with angulate ones; disc broadly and fairly strongly convex, very slightly micro-shagreened, rather frequently scattered with small, rounded punctures, with a pair of shallow oblique impressions at base. Scutellum triangular, sparsely scattered with microscopic punctures.

Elytra 1.4 times as long as wide, slightly less than 4 times the length and 1.32 times the width of pronotum, widest at basal 2/5; dorsum strongly convex, highest at basal 1/3; disc with rows of somewhat longitudinal punctures, which are sometimes finely striated in inner and marginal portions, small and dense in inner portion, large and sparse in lateral portions; intervals almost flat, very feebly micro-reticulate, rather frequently scattered with small punctures, which are about 1/16 times the size of those in rows; humeri and apices without peculiarities.

Ratios of the lengths of pro-, meso- and metatarsomeres: -, -, -, -, - (protarsi lost in the holotype); 1.0, 0.6, 0.35, 0.3, 1.15; 2.55, 0.8, 0.35, 1.1.

Body length: 5.3-5.7 mm.

Holotype: ♀, Benakat, S. Sumatra, 11-15-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., 11-II-1983, 1 ex., 13-III-1983, same locality and collector as for the holotype.

Notes: This new species somewhat resembles *Amarygmus powanus* sp. nov., but can be distinguished from the latter by the larger body with more shining dorsal surface, elytra with rows of punctures and intervals less distinctly punctate.

#### 113 Amarygmus sumatraselatanus sp. nov. (Fig. 115)

Brownish black, head and pronotum dark greenish blue, elytra dark copper-coloured, with a weak brassy tinge; dorsal surface metallically shining; legs and ventral surface moderately shining; each surface almost glabrous. Ovate and strongly convex above.

Head subelliptical, minutely punctate; clypeus transverse, fronto-clypeal border widely inverted V-shaped and finely sulcate; genae oblique and gently raised, with obtuse outer margins; frons gently inclined forwards; eyes very large, diatone about a half time the width of an eye diameter; vertex not modified. Antennae almost lost in the holotype, rather long in females (paratype) and reaching basal 2/5 of elytra, ratio of the length of each segment from basal to apical: 0.38, 0.2, 0.46, -, -, -, -, -, -.

Pronotum about 1.8 times as wide as long, widest at base; apex widely though shallowly emarginate, almost

straight in middle, finely rimmed; base rounded though feebly sinuous on each side; sides gently inclined, with lateral margins rounded apicad, finely rimmed and visible from above; front angles almost rectangular with rounded corners, hind angles obtuse but angulate; disc broadly and gently convex, scattered with minute punctures, with a small, transverse impression at the middle and a pair of shallow oblique ones at base. Scutellum triangular, sparsely scattered with microscopic punctures.

Elytra 1.4 times as long as wide, 3.7 times the length and 1.43 times the width of pronotum, widest at basal 1/3; dorsum strongly convex, highest at basal 1/4; disc with rows of punctures, which are rounded and weakly striated; intervals feebly convex, rather sparsely scattered with microscopic punctures; humeri and apices without peculiarities.

Legs lost in the holotype (male); (ratios of the lengths of pro-, meso- and metatarsomeres of a paratype in female: 0.39, 0.32, 0.3, 0.29, 1.2; 0.8, 0.43, 0.39, 0.31, 1.28; 1.9, 0.7, 0.39, 1.17).

Male genitalia rather slender, 2.5 mm in length and 0.35 mm in width, fairly strongly curved in basal portion in lateral view; fused lateral lobes 0.5 mm in length, with distinctly spatulate apex.

Body length: ca. 6-7 mm.

Holotype: ♂, Benakat (nursery site), S. Sumatra, 7-III-1983, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., same data as for the holotype, 1 ex., 2-III-1983, same locality and collector as for the holotype.

Notes: This new species resembles *Amarygmus taiwanus* MASUMOTO, 1981, from Taiwan, but can be distinguished from the latter by the smaller body with shorter pronotum, elytra with striated punctures larger and male genitalia slenderer.

114 Amarygmus sp. (Fig. 116)

Specimen examined: 1 ex., Benakat, IX-1994.

115 Amarygmus sp. (Fig. 117)

Specimen examined: 1 ex., Benakat, VI-1995.

#### 116 Amarygmus falsosericeus sp. nov. (Fig. 118)

Brownish black, clypeus, postero-lateral portion of pronotum, dark greenish blue, head except for clypeus, major part of pronotum and elytra brassy with copper-coloured tinge, a pair of oblique parts near base of pronotum dark purple; dorsal surface metallically though feebly sericeously shining, legs and ventral surface moderately shining; each surface almost glabrous. Oblong-ovate and strongly convex above.

Head transversely elliptical, though clypeus noticeably projected ventrad, closely and minutely punctate; clypeus weakly divergent apicad, fronto-clypeal border almost straight and finely sulcate; genae oblique and indistinct; frons rather narrow and almost vertical; eyes very large, though deeply invaded by genae, diatone about 1/4 times the width of an eye diameter; vertex not modified. Antennae rather long, reaching behind the middle of elytra, ratio of the length of each segment from basal to apical: 0.55, 0.2, 0.65, 0.5, 0.55, 0.

Pronotum about 1.85 times as wide as long, widest at base; apex very weakly produced in middle, finely rimmed; base widely rounded though sinuous on each side; sides rather steeply inclined, with lateral margins rounded apicad, finely rimmed and visible from above in basal 1/3; front angles almost rectangular with rounded corners, hind angles obtuse but angulate; disc broadly and gently convex, weakly micro-shagreened, rather frequently scattered with fine punctures, with a pair of shallow oblique impressions at base. Scutellum triangular, sparsely scattered with microscopic punctures.

Elytra 1.52 times as long as wide, 3.5 times the length and 1.38 times the width of pronotum, widest at basal 3/7; dorsum strongly convex, highest at basal 2/7; disc with rows of rounded punctures; intervals feebly convex,

-136 -

very weakly micro-shagreened and micro-reticulate, rather frequently scattered with minute punctures; humeri

-137 -

Male metatibiae feebly incurved apicad; ratios of the lengths of pro-, meso- and metatarsomeres: 0.45, 0.35, 0.35, 0.25, 1.2; 0.9, 0.5, 0.4, 0.3, 1.25; 2.3, 0.65, 0.35, 1.25.

Male genitalia slender, 2.3 mm in length and 0.3 mm in width, basal piece evenly curved in lateral view; fused lateral lobes 0.6 mm in length, with nib-shaped apex.

Body length: 7.2-7.5 mm.

and apices without peculiarities.

Holotype: ♂, Benakat, S. Sumatra, 8-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., same data as for the holotype, 2 exs., 8-10-VI-1995, same locality and collector as for the holotype.

Notes: This new species somewhat resembles *Amarygmus sericeus* GEBIEN, 1927, from Sumatra, but can be distinguished from the latter by the larger body, with elytral intervals not distinctly punctate.

### 117 Amarygmus yukae sp. nov. (Fig. 119)

A beautiful species not closely related to any of the known congeners.

Piceous, head golden green in middle, with purple vertex, pronotum golden with a vague transverse greenish blue area in middle, whose anterior and posterior margins are purplish, elytron golden, with a rather large, dark greenish blue patch in humeral portion and a large comma-shaped patch of the same coloration in posterior half, margins of those patches purplish (dorsal coloration often varies in individuals and under a certain light); dorsal surface metallically shining; legs and ventral surface moderately shining; each surface almost glabrous. Ovate and strongly convex above.

Head subelliptical, though clypeus noticeably large and projected, wholly minutely punctate; clypeus feebly convergent apicad, fronto-clypeal border arcuate and finely sulcate; genae oblique and gently raised; frons narrow, slightly convex; eyes very large, roundly produced laterad, diatone about 1/3 times the width of an eye diameter; vertex not modified. Antennae very feebly thickened apicad, reaching basal 1/3 of elytra, ratio of the length of each segment from basal to apical: 0.7, 0.2, 0.65, 0.45, 0.5, 0.55, 0.55, 0.55, 0.5, 0.6.

Pronotum subtrapezoidal, about twice as wide as long, widest at base; apex almost straight, finely rimmed; base feebly bisinuous; sides rather steeply inclined, with lateral margins finely rimmed, the rims in basal halves visible from above; front angles rectangular though invisible from above, hind angles obtuse; disc broadly and gently convex, scattered with minute punctures, with a pair of shallow oblique impressions at base. Scutellum triangular, sparsely scattered with microscopic punctures.

Elytra 1.4 times as long as wide, 4.1 times the length and 1.4 times the width of pronotum, widest at basal 3/7; dorsum strongly convex, highest at basal 1/4; disc with rows of punctures, which are rounded and sometimes very weakly striated; intervals very feebly convex, rather sparsely scattered with microscopic punctures and micro-reticulate; humeri and apices without peculiarities.

Male metatibiae noticeably incurved apicad, with apices widened and weakly twisted; ratios of the lengths of pro-, meso- and metatarsomeres: 0.38, 0.31, 0.29, 0.27, 1.2; 0.7, 0.43, 0.4, 0.26, 1.18; 1.78, 0.55, 0.32, 1.2.

Male genitalia rather slender, 2.2 mm in length and 0.3 mm in width, with basal portion fairly strongly curved in lateral view; fused lateral lobes 0.65 mm in length, with simply nib-shaped apex.

Body length: 8.0-9.5 mm.

Holotype: *3*<sup>°</sup>, Benakat, S. Sumatra, collected from the dead tree, *Swietenia macrophylla* (Meliaceae), 7-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., same data as for the holotype, 3 exs., 8-VI-1995, 6 exs., 8-10-VI-1995, same locality and collector as for the holotype.

118 Amarygmus sp. (Fig. 120)

#### 森林総合研究所研究報告 第374号

Specimens examined: 1 ex., Benakat, II-1983; 1 ex., Benakat, IX-1994.

#### 119 Amarygmus matsumotoi sp. nov. (Fig. 121)

Brownish black, head except for clypeus and anterior portion of pronotum dark golden green, major posterior portion of pronotum dark blue, scutellum piceous, elytron reddish castaneous, with three dark bluish patches, one at basal 1/5, another at 1/2 and the third at apical 1/5, whose inner margins are golden or brassy, 5 basal segments of antennae, legs, mouth parts, etc., reddish brown; dorsal surface metallically shining, legs and ventral surface moderately shining; each surface almost glabrous. Ovate and very strongly convex above.

Head almost vertical against pronotum, very slightly micro-shagreened, fairly frequently, minutely punctate; clypeus transversely oblong, fronto-clypeal border feebly arcuate and finely though clearly sulcate; genae oblique, with obtuse outer margins; frons rather wide; eyes very large though major portions hidden by pronotum, rather distinctly produced ventrad, diatone about 1/2 times the width of an eye diameter; vertex not modified. Antennae feebly thickened apicad, reaching basal 1/4 of elytra, ratio of the length of each segment from basal to apical: 0.4, 0.2, 0.4, 0.3, 0.35, 0.35, 0.35, 0.35, 0.35, 0.35, 0.55.

Pronotum 1.67 times as wide as long, widest at base; apex very slightly produced apicad, finely rimmed; base rounded though feebly sinuous on each side; sides steeply inclined, with lateral margins rounded apicad, finely rimmed, the rims visible from above; front and hind angles obtuse, the former with rounded corners, the latter with angulate ones; disc strongly convex, very slightly micro-shagreened, rather frequently scattered with microscopic punctures. Scutellum triangular, feebly convex, sparsely scattered with microscopic punctures.

Elytra 1.4 times as long as wide, 3.5 times the length and 1.3 times the width of pronotum, widest at basal 2/5; dorsum very strongly convex, highest at basal 1/4; disc with rows of small and rounded punctures, which are very sparsely set; intervals almost flat, very feebly micro-reticulate, sparsely scattered with microscopic punctures; humeri and apices without peculiarities.

Legs without peculiarities; ratios of the lengths of pro-, meso- and metatarsomeres: 0.38, 0.28, 0.27, 0.24, 1.2; 0.65, 0.44, 0.41, 0.4, 1.25; 1.8, 0.7, 0.55, 0.85.

Male genitalia slender, 1.3 mm in length and 0.14 mm in width, basal piece rather strongly curved in lateral view; fused lateral lobes 0.35 mm in length, with simply nib-shaped apex.

Body length: 3.5-4.0 mm.

Holotype:  $\mathcal{S}$ , Benakat, S. Sumatra, 8-10-VI-1995, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., same data as for the holotype; 2 exs., 7-VI-1995, 3 exs., 12-III-1983, 1 ex., 13-III-1983, same locality and collector as for the holotype.

Notes: This new species resembles *Pseudamarygmus dohertyi* Pic, 1915, from the Malay Peninsula, but can be distinguished from the latter by the shortened body. Although Pic (1915) erected the genus *Pseudamarygmus* for *P. testaceipes* Pic, and described five other species under the genus. No significant differences have been recognized between the genera *Amarygmus* and *Pseudamarygmus*.

120 Azarelius sculpticollis (FAIRMAIRE, 1892) (Fig. 122)

Specimen examined: 1 ex., Benakat, collected from the polypores, Ganoderma sp. (Ganodermataceae), IX-1994.

#### Tribe Rhysopaussini

121 Gonocnemis sericeus (FABRICIUS, 1801) (Fig. 123)
 Specimens examined: 25 exs., Benakat, II-III-1983; 4 exs., Benakat, IX-1994; 1 ex., Benakat, VI-1995.

122 Gonocnemis sumatrensis Pic, 1915 (Fig. 124)

— 138 —

Study on the Tenebrionid Beetles in South Sumatra (MASUMOTO et al.)

Specimens examined: 3 exs., Benakat, III-1983.

#### Tribe Strongyliini

123 Strongylium gratum Mäklin, 1864 (Fig. 125)

Specimens examined: 1 ex., Benakat, II-1983 (det. in 1985 as *S. subimpressum* FAIRMAIRE, 1903); 1ex., Benakat, VI-1995.

124 Strongylium viridicolle MAKLIN, 1864 (Fig. 126) Specimens examined: 1 ex., Benakat, II-1983, (det. in 1985 as nr. S. varians PASCOE, 1883); 4 exs., Benakat, VI-1995.

#### 125 Strongylium selatanum sp. nov. (Fig. 127)

Dark reddish brown, head dark greenish blue with feeble golden tinge, pronotum purple with postero-medial portion irregularly violet, elytra copper-coloured, with iron-coloured tinge along base and lateral margins; head weakly, metallically shining, pronotum and elytra metallically shining, legs and ventral surface moderately shining; each surface almost glabrous. Elongated fusiform; gently convex.

Head slightly wider than long, minutely punctate; clypeus somewhat transversely elliptical, bent downwards in front, fronto-clypeal border arcuate and deeply sulcate; genae oblique, with rounded and arched outer margins; frons widely Y-shaped and finely ridged; eyes oblique, rather strongly convex postero-laterad, inlaid into head antero-internad, deeply sulcate along posterior margins, diatone 1/11 times the width of an eye diameter; vertex feebly convex, somewhat rhombically impressed between eyes. Antennae slightly thickened apicad, reaching base of elytra, ratio of the length of each segment from basal to apical: 0.28, 0.2, 0.38, 0.36, 0.42, 0.41, 0.41, 0.43, 0.41, 0.40, 0.57.

Pronotum 1.2 times as wide as long, widest slightly before the middle; apex and lateral margins finely and continuously rimmed, the rim visible from above, apex feebly arcuate forwards; base bisinuous, clearly bordered and boldly rimmed; sides moderately declined to lateral margins, which are arcuate laterad, though gently constricted before the base; front angles rounded, hind angles almost rectangular; disc gently convex, longitudinally depressed in antero-medial portion, strongly impressed along lateral margins near base, very weakly micro-shagreened, covered with small rounded punctures. Scutellum sublinguiform, feebly elevated, sparsely scattered with microscopic punctures.

Elytra 2.2 times as long as wide, 3.5 times the length and 1.4 times the width of pronotum, widest at apical 2/5; dorsum convex, though weakly flattened around scutellary strioles, highest at basal 1/3; disc with rows of feebly elongated punctures, those in inner portion are small and dense, those in medial and lateral portions become larger and sparser, 5th rows impressed near base; humeri and apices without peculiarities.

Legs not modified; ratios of the lengths of pro-, meso- and metatarsomeres: 0.3, 0.25, 0.25, 0.27, 1.2; 1.4, 0.75, 0.62, 0.53, 1.6; 1.4, 0.55, 0.45, 1.38.

Male genitalia rather slender, 1.5 mm in length and 0.25 mm in width, fairly strongly curved in lateral view; fused lateral lobes 0.6 mm in length, with weakly prolonged apices.

Body length: 7.3-10.5 mm.

Holotype: ♂, Benakat, S. Sumatra, 2-13-IX-1994, H. MAKIHARA leg. (NSMT). Paratypes: 1 ex., same data as for the holotype; 1 ex., 9-VI-1995, same locality and collector as for the holotype.

Notes: This new species somewhat resembles *Strongylium flavitarse* FAIRMAIRE, 1882, from Sumatra, but can be easily distinguished from the latter by the shortened body with larger eyes, pronotum obviously more densely punctate, elytral punctures not transverse but longitudinal, and not elongated legs. An unnamed species related to

the present new one occurs in Borneo.

126 Strongylium flavitarse FAIRMAIRE, 1882 (Fig. 128) Specimen examined: 1 ex., Benakat, VI-1995.

#### 127 Strongyhum benakatense sp. nov. (Fig. 129)

A remarkable species in having modified male metatibiae with no close relative previously known.

Dark brown; basal portions of femora, 1st and 2nd segments of antennae, mouth parts, gula, anal sternite, etc., pale yellow, head and pronotum dark greenish blue, with feeble reddish brown tinge longitudinally in middle, scutellum and medial part of elytra longitudinally brown, elytra blue with feeble greenish tinge; head and pronotum feebly, somewhat sericeously shining, scutellum, elytra and legs moderately shining, ventral surface weakly, somewhat alutaceously shining; each surface almost glabrous. Elongate; convex above though gently flattened medially.

Head subelliptical, closely punctate; clypeus semicircular, noticeably bent downwards in front, fronto-clypeal border arcuate and clearly sulcate; genae oblique with outer margins obtusely angulate; frons rather T-shaped, steeply inclined forwards; eyes rather large and somewhat reniform, noticeably convex laterad and obliquely inlaid into head, diatone about 1/5 times the width of an eye diameter; vertex slightly convex, feebly impressed between eyes. Antennae subfiliform, reaching basal 1/5 of elytra, ratio of the length of each segment from basal to apical: 0.55, 0. 2, 0.8, 0.68, 0.63, 0.62, 0.61, 0.62, 0.53, 0.51, 0.58.

Pronotum short barrel-shaped, 1.25 times as wide as long, widest at apical 2/5; apex widely, triangularly rimmed; base almost straight and clearly bordered; sides steeply inclined laterad, not bordered from ventral part; front angles rounded, hind angles obtuse; disc gently convex, longitudinally depressed in medial portion, very weakly micro-shagreened, closely punctate, the punctures often fused with one another. Scutellum subpentagonal, very weakly convex, smooth though sparsely scattered with microscopic punctures.

Elytra slightly less than twice as long as wide, 2.9 times the length and 1.4 times the width of pronotum, widest at apical 2/5; dorsum strongly convex though gently flattened in baso-medial part; disc punctato-striate, the striae shallow and wide, the punctures large and slightly transverse; intervals finely ridged, very weakly micro-shagreened, sparsely scatterued with microscopic punctures, each with a microscopic hair, which is visible in a high magnification (more than 30 X); humeri and apices without any peculiarities.

Male protibiae curved ventrad; male metatibiae with inner faces noticeably gouged and widened at basal 1/3; ratios of the lengths of pro-, meso- and metatarsomeres: 0.22, 0.19, 0.19, 0.18, 1.2; 1.95, 0.87, 0.7, 0.52, 1.34; 1.92, 0.76, 0.48, 1.36.

Male genitalia subfusiform, 1.6 mm in length and 0.28 mm in width, rather strongly curved in lateral view; fused lateral lobes about 0.6 mm in length, with pointed apex.

Body length: ca. 6.5 mm.

Holotype: &, Benakat, S. Sumatra, 15-VI-1995, H. MAKIHARA leg. (NSMT).

128 Strongylium costipenne MAKLIN, 1864 (Fig. 130)

Specimens examined: 1 ex., Benakat, VI-1995; 1 ex., Seilalan, VI-1995.

129 Strongylium villosum MAKLIN, 1864 (Fig. 131) Specimen examined: 1 ex., Benakat (nursery site), 18-III-1983 (det. in 1985 as nr. S. binhense Ptc, 1922).

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### References

ARNETT, R. H. (1973): The beetles of the United States. The American Entomological Institute, Michigan, xii+1112.

- BLAIR, K. G. (1919) : V. Coleoptera Heteromera. Collected in Korinchi, West Sumatra, Messrs. H. C. ROBINSON and C. Boden KLOSS. J. Fed. Malay States Mus., II: 73-80.
- BREMER, H. J. (1991) : Anmerkungen zur Gattung Ararelius FAIRMAIRE, Paragonocnemis-Art (Coleoptera, Tenebrionidae, Amarygmini). Entomofauna, **12**: 149-153.

FAIRMAIRE, L. (1882) : Note XXIII. Coléoptèrs Hétéromères de Sumatra. Notes Leyden Mus., 4 : 219-265.

GEBIEN, H. (1921) : Philippine Tenebrionidae, II . Philip. Jour. Sci., 22 : 439-515., 2 pls.

(1925) : Die Tenebrioniden (Coleoptera) des indo-malayschen Gebietes, unter Beruecksichtigung der benachbarten Faunen I. Einleitung sowie die Gattung *Byrsax* PASCOE., Ibid., **26** : 67-94.

(1925) : Ditto, VI. Die Gattung Platydema Castelnau und Brulle. Ibid., 27 : 539-595, 1 pl.

----- (1927) : Fauna Sumatrensis (Beitrag Nr. 31.) Tenebrionidae (Col.). Suppl. ent. XV : 22-58.

KASZAB, Z. (1973) : Tenebrioniden (Coleoptera) aus Nepal. Act. zool. Aca. Sci. hung., 19: 23-74.

(1983) : Über die mit *Pigeus* GEBIEN, 1917 und *Hoploedipus* FAIRMAIRE, 1898 verwandten aus der orientalischen Region (Coleoptera: Tenebrionidae). Ibid., **30** : 353-391.

KULZER, H. (1951) : Fünfter Beitrag zur Kenntnis der Tenebrioniden, Ent. Arb. Mus. Frey, 2 : 461-573.

(1952) : Siebenter Beitrag zer Kenntnis der Tenebrioniden (Col.). Einige neue Gattungen und Arten der Tribus Cnodalonini aus dem Nachla B von H. GEBIEN in coll. G. FREY. Ent. Arb. Mus. Frey, **3** : 719-764.

Mäklin, F. W. (1864) : Monographie der Gattung *Strongylium* Kirby, Lacordaire und der damit zunächst verwandten Formen. 109-410, 4 pls. Finnländischen Wissenschaftlichen Gesellschaft, Helsingfors.

MASUMOTO, K. (1981) : Tenebrionidae of Formosa (3). Elytra, Tokyo, 9 : 79-99.

(1985) : Tenebrionidae of East Asia (I) Tenebrionid beetles from South Sumatra collected by Mr. Hiroshi Makihara in 1983. Ibid., **13**: 1-18.

(1986): Study on Asian Tenebrionidae, 1. New species of the Cnodalonine genera of Allopezus, Chaetopsia and Falsonannocerus. Ent. Rev. Japan, 41: 1-26.

RITSEMA, C. (1886) : Fam. Tenebrionidae. Overgedrukt uit Midden-Sumatra, Leiden, 80-100.

Schwaller, W. (1994): New Oriental Tenebrionidae (Coleoptera). Entomofauna, 15: 261-280.

Study on the Tenebrionid Beetles in South Sumatra (MASUMOTO et al.)

南スマトラのゴミムシダマシ科甲虫 益本仁雄<sup>(1)</sup>, 槇原 寛<sup>(2)</sup>

# 摘要

この報文は著者のうちの1人である,槇原がJICA,南スマトラ森林造成および,そのアフターケア計 画に参加し,森林害虫短期専門家として1983年2,3月,1994年9月,1995年6月,インドネシア国南 スマトラ州ブナカット地区に滞在中に得たゴミムシダマシ科甲虫129種の研究目録である。そのうち, 明らかに新種と判明した25種については新種記載を行った。その新種名は下記に示す。

Platydema selatana sp. nov., P. benakatensis sp. nov., Xanthalia benakatensis sp. nov., X. sumatrensis sp. nov., Plamius nobuchii sp. nov., P. matsumotoi sp. nov., Simalura sumatrensis sp. nov., S. falsosoror sp. nov., Phaedis elicitus sp. nov., Tetragonomenes benakatensis sp. nov., Falsonannocerus benakatensis sp. nov., Allopezus tsuge sp. nov., A. shigeoi sp. nov., Elixota benakatensis sp. nov., E selatana sp. nov., Amarygmus pseudopicitarsis sp. nov., A. benakatensis sp. nov., A. powanus sp. nov., A. powanpowanus sp. nov., A. sumatraselatanus sp. nov., A. falsosericeus sp. nov., A. yukae sp. nov., A. matsumotoi sp. nov., Strongylium selatanum sp. nov., S. benakatense sp. nov.

なお,1983年2,3月に槇原がブナカット地区に滞在中に得たゴミムシダマシ科甲虫の大半について は著者の一人益本により記録されており、今回の報文はこの地区における本科甲虫の2番目の報告とな る。

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-143 -

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Fig. 3. Heterotarsus inflatus (15.0 mm); Fig. 4. Gonocephalum adpressiforme (8.5 mm); Fig. 5. Gonocephalum andrewesi (7.5 mm); Fig. 6. Scleron ferrugineum (6.0 mm); Fig. 7. Bradymerus clathratus (6.5 mm); Fig. 8. Atasthalus callosus (8.0 mm); Figs. 9. Byrsax excisicollis (8.0 mm); Fig. 9'. Ditto (lateral view); Fig. 10. Rhipidandrus crenipennis (3.0 mm); Fig. 11. Rhipidandrus speculifrons (2.3 mm); Fig. 12. Platydema tricuspis (6.3 mm); Fig. 13. Platydema fumosum (9.1 mm).



Fig. 14. *Platydema waterhousei* (3.6 mm); Fig. 15. *Platydema* sp. affin. *P. subfascia* (3.6 mm); Fig. 16. *Platydema* sp. (4.5 mm); Fig. 17. *Platydema selatana* sp. nov. (4.3 mm); Fig. 18. *Platydema* sp. (2.8 mm); Fig. 19. *Platydema* sp. (3.4 mm); Fig. 20. *Platydema benakatensis* sp. nov. (4.3 mm)



Fig. 21. Ischnodactylus batesi (6.8 mm); Fig. 22. Ischnodactylus bifasciatus (5.7 mm); Fig. 23. Spiloscapha sp. (7.1 mm); Fig. 24. Cyclobimorophus undulatus (7.8 mm); Fig. 25. Ceropria induta (9.0 mm); Fig. 26. Ceropria opulenta (8.2 mm); Fig. 27. Ceropria medanensis (10.5 mm); Fig. 28. Ceropria amplipennis (11.0 mm)



Fig. 29. Pentaphyllus quadricornis (2.7 mm); Fig. 30. Pentaphyllus biroi (2.1 mm); Fig. 31. Leiochrinus rufofulvus (4.8 mm); Fig. 32. Leiochrodes rufofulvus (3.5 mm); Fig. 33. Leiochrodes harpagon (3.7 mm); Fig. 34. Cneocnemis sumatrensis (6.8 mm); Fig. 35. Cneocnemis haemorrhoa (6.6 mm); Fig. 36. Uloma javana (11.5 mm); Fig. 37. Uloma contracta (6.0 mm); Fig. 38. Uloma sp. (7.0 mm); Fig. 39. Uloma sp. (6.2 mm); Fig. 40. Eutochina lateralis (6.8 mm)



Fig. 41. Derosphaerus aeruginosus (15.4 mm); Fig. 42. Derosphaerus viriditinctus (10.8 mm); Fig. 43. Derosphaerus sp. (11.2 mm); Fig. 44. Necrobioides sulcaticollis (11.5 mm); Fig. 45. Cryphaeus gazellae (8.5 mm); Fig. 46. Toxicum quadricorne (11.4 mm); Fig. 47. Promethis cupripennis (28.0 mm); Fig. 48. Promethis sumatrana (12.5 mm); Fig. 49. Promethis rectangula (21.0 mm); Fig. 50. Luprops tebingensis (7.7 mm); Fig. 51. Luprops violaceipennis (11.5 mm); Fig. 52. Xanthalia benakatesis sp. nov. (5.6 mm); Fig. 53. Xanthalia sumatrensis sp. nov. (5.3 mm)



Fig. 54. Tetraphyllus corruscus (5.6 mm); Fig. 55. Tetraphyllus orichalceus (5.1 mm); Fig. 56. Tetraphyllus marginicollis (6.6 mm); Fig. 57. Tetraphyllus cyaneicollis (6.0 mm); Fig. 58. Artactes nigritarsis (7.9 mm); Fig. 59. Artactes cyaneus (7.6 mm); Fig. 60. Hemicera splendens (6.7 mmm); Fig. 61. Hemicera compacta (6.4 mm); Fig. 62. Hemicera empatanda (8.5 mm); Fig. 63. Hemicera tabatai (7.3 mm); Fig. 64. Hemicera cyanicollis (14.5 mm); Fig. 65. Hemicera alternicolor (8.8 mm); Fig. 66. Hemicera truncaticeps (9.0 mm); Fig. 67. Hemicera vittulata (5.0 mm); Fig. 68. Euhemicera femoralis (9.1 mm); Fig. 69. Nanohemicera sexmaculata (5.0 mm)



Fig. 70. Eucyrtus pretiosus (21.0 mm); Fig. 78. Gauromaia dives (15.3 mm); Fig. 96. Falsonannocerus makiharai (6.5 mm); Fig. 97. Falsonannocerus benakatensis sp. nov. (6.2 mm); Fig. 98. Chaetopisia sumatrensis (6.2 mm); Fig. 99. Allopezus tsuge sp. nov. (5.65 mm); Fig. 100. Allopezus shigeoi sp. nov. (5.3 mm); Fig. 122. Azarelius sculpticollis (4.0 mm); Fig. 123. Gonocnemis sericeus (6.3 mm); Fig. 124. Gonocnemis sumatrensis (3.5 mm); Fig. 125. Strongylium gratum (13.0 mm); Fig. 126. Strongylium viridicolle (13.4 mm); Fig. 128. Strongylium flavitarse (8.7 mm); Fig. 130. Strongylium costipenne (10.1 mm)



Fig. 71. Plamius nobuchii sp. nov. (6.8 mm); Fig. 72. Plamius matsumotoi sp. nov. (5.6 mm); Fig. 73. Plamius sp. (6.1 mm); Fig. 74. Plamius chalceus (5.8 mm); Fig. 75. Simalura yamatei (6.7 mm); Fig. 76. Simalura sumatrensis sp. nov. (10.7 mm); Fig. 77. Simalura falsosoror sp. nov. (4.3 mm); Fig. 79. Gauromaia hasselti (10.8 mm); Fig. 80. Gauromaia semicyanea (11.7 mm); Fig. 81. Gauromaia sp. (8.6 mm); Fig. 82. Gauromaia variicolor (9.8 mm); Fig. 83. Phaedis semiarmatus (9.0 mm)



Fig. 84. Phaedis elicitus sp. nov. (8.8 mm); Fig. 85. Phaedis sp. (6.3 mm); Fig. 86. Thesilea ariharai (10.2 mm); Fig. 87. Psydus sinuaticollis (14.5 mm); Fig. 88. Androsus corporaali (4.1 mm); Fig. 89. Tetragonomenes subcostatus (6.6 mm); Fig. 90. Tetragonomenes benakatensis sp. nov. (5.0 mm); Fig. 91. Camarimena sp. (12.0 mm); Fig. 92. Pseudonautes viridicollis (14.5 mm); Fig. 93. Pseudonautes sp. (7.5 mm); Fig. 94. Pseudonautes purpureolineatus (7.5 mm); Fig. 95. Pseudonautes vagevittatus (12.0 mm)

1



Fig. 101. Platolenes sp. (8.2 mm); Fig. 102. Platolenes sp. (7.4 mm); Fig. 103. Elixota benakatensis sp. nov. (8.6 mm); Fig. 104. Elixota ohtai (9.3 mm); Fig. 105. Elixota selatana sp. nov. (5.8 mm); Fig. 106. Amarygmus splendidulus (5.3 mm); Fig. 107. Amarygmus katoi (8.7 mm); Fig. 108. Amarygmus picitarsis (7.8 mm); Fig. 109. Amarygmus cuprarius (11.0 mm); Fig. 110. Amarygmus pseudopicitarsis sp. nov. (7.5 mm); Fig. 111. Amarygmus benakatensis sp. nov. (7.2 mm); Fig. 112. Amarygmus metallicus (10.5 mm)



Fig. 113. Amarygmus powanpowaus sp. nov. (5.7 mm); Fig. 114. Amarygmus powanus sp. nov. (5.5 mm); Fig. 115. Amarygmus sumatraselatanus sp. nov. (6.2 mm); Fig. 116. Amarygmus sp. (5.5 mm); Fig. 117. Amarygmus sp. (5.4 mm); Fig. 118. Amarygmus falsosericeus sp. nov. (9.5 mm); Fig. 119. Amarygmus yukae sp. nov. (9.5 mm); Fig. 120. Amarygmus sp. (4.0 mm); Fig. 121. Amarygmus matsumotoi sp. nov. (3.5 mm); Fig. 127. Strongylium selatanum sp. nov. (8.6 mm); Fig. 129. Strongylium benakatense sp. nov. (6.5 mm); Fig. 131. Strongylium villosum. (12.0 mm).