

Melolonthidae (Coleoptera) from Thailand, II

Takeshi ITOH

Higashi-naruo-chô 2-1-13-212, Nishinomiya, Hyôgo, 663 Japan

Abstract Eighteen species of melolonthine beetles are reported from Thailand. Two new subspecies, *Holotrichia yunnana magna* and *Miridiba tuberculipennis obscura* are described.

In the present study, I am going to report 18 species including 2 new subspecies. Abbreviations are shown in the introduction of the first part of this series. The following abbreviations are added for the names of collectors and for others: AN – Akira NISHIYAMA; AY – Akira YAMASHITA; HH – Hanmei HIRASAWA; KK – Kazuo KAWANO; MS – Minoru SAWAI; MT – Minoru TAO; NK – Nobuhiro KOYAMA; YK – Yukio KUWAHARA; YM – Yoshikazu MIYAKE; sl. – same locality; CM – Chiang Mai.

1. *Holotrichia cephalotes* (BURMEISTER, 1855)

(Fig. 1)

Phytalus cephalotes BURMEISTER, 1855, 352 (China).

Holotrichia cephalotes: MOSER, 1908, 341–342 (Montes Mauson, Chiem Hoa).

Distribution. China, N. Vietnam, Thailand [new record], Laos [new record].

Specimens examined. 1 ♂, 1 ♀, Chum Phon, S. Thailand, 30–VIII–1981 [OPU]; 14 ♂♂, 11 ♀♀, Fang (ca. 450 m alt.), CM, 14~17–V–1983 [OPU]; 3 ♂♂, 8 ♀♀, CM, V~VI–1985; 1 ♂, Chanthaburi, Khao Soi Dao (ca. 400 m alt.), SE. Thailand, 24~25–VIII–1987 [OPU]; 1 ♀, Samneua, NE. Laos, 28–V–1992, YM leg.; 2 ♀♀, Tam Dao, Vinh Phu, Vietnam, 10–VI–1991.

2. *Holotrichia planicollis* (BURMEISTER, 1855)

(Figs. 2, 19)

Phytalus planicollis BURMEISTER, 1855, 352–353 (China: Tschusan).

Holotrichia planicollis: MOSER, 1908, 341 (Montes Mauson, Chiem Hoa).

Distribution. China, N. Vietnam, Laos [new record], Thailand [new record].

Specimens examined. 2 ♂♂, 3 ♀♀, Doi Chiang Khian (ca. 1,250 m, alt.), CM, 29–V–1983 [OPU]; 1 ♂, 2 ♀♀, Fang, CM, 14~17–V–1983 [OPU]; 1 ♀, Doi Suthep, CM, 26~31–V–1983, K. IKEDA leg.; 1 ♀, sl., 4–VIII–1980, J. ITÔ leg.; 2 ♀♀, sl.,

14~15-V-1980, MT leg.; 1 ♀, sl., 26-V-1982, AN leg.; 1 ♂, sl., 11-V-1983, AN leg.; 1 ♂, 1 ♀, CM, V-1985, NK leg.; 1 ♂, Doi Pui, CM, 19-V-1984; 1 ♀, sl., 9-VI-1984; 1 ♂, sl., 22-V-1986; 6 ♂♂, Xieng Khouang, Laos, V-1993, WAKAHARA leg.; 2 ♂♂, Jian, Jianxi Prov., China, 10~20-VI-1991, PENG Zhongliang leg.; 2 ♂♂, Sapa, Hoang Lien Son, Vietnam, 27-V-1992, M. ITOH leg.; 8 ♂♂, 1 ♀, sl., 3~28-V-1993, N. KATSURA leg.; 4 ♂♂, 5 ♀♀, Tam Dao, N. Vietnam, 28~30-IV-1991, M. FUJIOKA leg.; 1 ♂, sl., 3~28-V-1993, N. KATSURA leg.; 1 ♀, Babe, N. Vietnam, 10~20-V-1994.

3. *Holotrichia nigricollis* BRENSKE, 1892

(Figs. 3, 20(a-b))

Holotrichia nigricollis BRENSKE, 1892, 177-178 (Himalaya: Dari); FREY, 1971, 218.

Holotrichia nigricollis var. *rubricollis* MOSER, 1909, 469-470 (Assam).

Distribution. India, Thailand [new record].

Specimens examined. 1 ♂, Doi Inthanon, CM, 21-V-1983 [OPU]; 1 ♂, Doi Pakia, CM, 24-V-1983 [OPU]; 3 ♀♀, Doi Ang Khang, CM, 16-V-1983 [OPU]; 1 ♀, Doi Chiang Khian, CM, 27-V-1983 [OPU]; 3 ♂♂, 1 ♀, Fang, CM, 14~17-V-1983 [OPU]; 2 ♂♂, Doi Suthep, CM, 22-V~1-VI-1980, MT leg.; 4 ♂♂, 2 ♀♀, sl., 3-V-1988, AY & YK leg.; 5 ♂♂, 2 ♀♀, sl., 22~29-V-1983, MS leg.; 1 ♂, sl., 26~31-V-1983, K. IKEDA leg.; 1 ♂, 1 ♀, Phuping Palace, CM, 29-V~3-VI-1983, MS leg.; 1 ♀, sl. 20~21-V-1985, MS leg.; 1 ♂, 2 ♀♀, CM, V-1985; 1 ♂, CM (1,000 m alt.), 21-V-1987, HH leg.; 1 ♂, sl. (1,300 m alt.), 17-V-1987, HH leg.; 1 ♂, Doi Pui (1,400-1,500 m alt.), CM, 16-V-1983, AN leg.; 1 ♂, Doi Mae Salong, CM, 21-IV-1992, KK leg.; 2 ♂♂, Erawan Resort, CM, 22-IV-1992, KK leg.; 1 ♂, Ban Nang Bang, Sai Yok, W. Thailand, MS leg.

4. *Holotrichia yunnana magna* T. ITOH, subsp. nov.

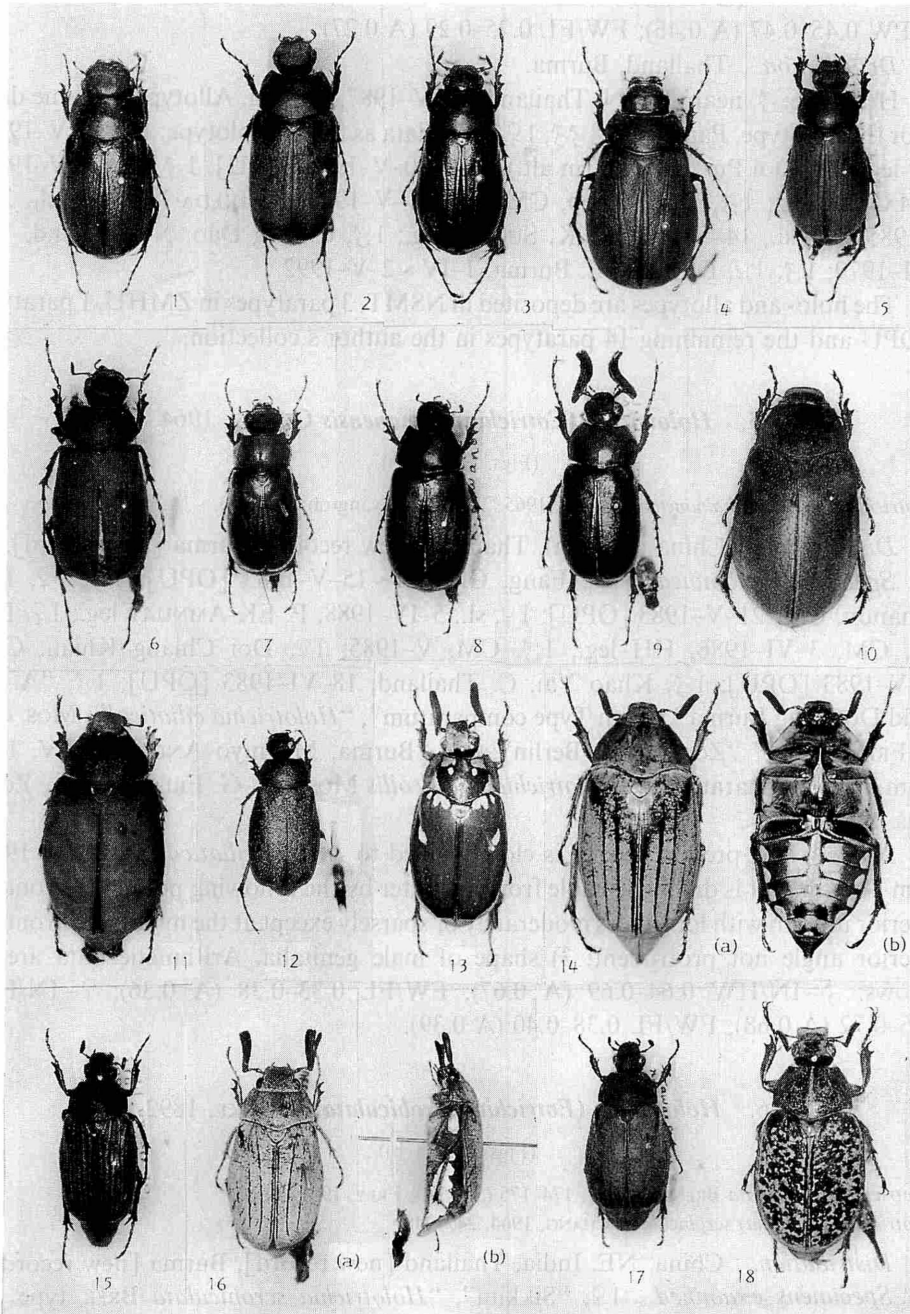
(Figs. 4, 21, 33)

Holotrichia yunnana: MOSER, 1912, 428-429 (Yunnan: Tali); CHANG, 1965, 38, 41.

Length: 22.0-26.6 mm.

The present new subspecies is distinguishable from the nominotypical one by the following points: 1) Pronotum slightly broader, in female more shining and more blackish red in color; 2) postero-lateral margins of pronotum not sinuate in female (in the female of the nominotypical one, they are sinuate); 3) metafemur more or less opaque; 4) body larger. Parameres of male genitalia identical in shape with that of the nominotypical one. Arithmetic data are as follows: ♂-IN/HW 0.67-0.70 (A 0.68);

Figs. 1-18. — 1, *Holotrichia cephalotes*; 2, *H. planicollis*; 3, *H. nigricollis*; 4, *H. yunnana magna* subsp. nov.; 5, *H. (Eotrichia) hainanensis*; 6, *H. (E.) scrobiculata*; 7, *Miridiba sus*; 8, *M. tuberculipennis obscura* subsp. nov.; 9, *Megistophylla andrewesi*; 10, *Lepidiota bimaculata*; 11, *L. amoena*; 12, *Empectida tonkinensis*; 13, *Hoplosternus maculatus*; 14(a-b), *Melolontha malaccensis*; 15, *M. gressitti*; 16(a-b), *M. alboplagiata*; 17, *Exolontha castanea*; 18, *Polyphylla tonkinense*.



PL/PW 0.43–0.47 (A 0.45); FW/FL 0.22–0.26 (A 0.24); ♀–IN/HW 0.68–0.71 (A 0.70);
PL/PW 0.45–0.47 (A 0.46); FW/FL 0.25–0.29 (A 0.27).

Distribution. Thailand, Burma.

Holotype: ♂, near CM, N. Thailand, 21–V–1987, HH leg. Allotype: ♀, same data as for the holotype. Paratypes: 8 ♂♂, 1 ♀, same data as for the holotype; 1 ♂, sl., V–1985, NK leg.; 1 ♀, Doi Pui (ca. 1,300 m alt.), CM, 30–V–1983 [OPU]; 1 ♂, sl., 11–V–1985, I. MATOBA leg.; 1 ♂, Doi Suthep, CM, 26~31–V–1983, K. IKEDA leg.; 1 ♂, sl., 26–V–1985; 1 ♂, sl., 14–VIII–1980, K. SUGINO leg.; 1 ♂, Chiang Dao, N. Thailand, 12–VIII–1979; 1 ♂, 1 ♀, Dawna, SE. Burma, 1–IV~2–V–1992.

The holo- and allotypes are deposited in NSMT, 3 paratypes in ZMHU, 1 paratype in OPU and the remaining 14 paratypes in the author's collection.

5. *Holotrichia (Eotrichia) hainanensis* CHANG, 1964

(Figs. 5, 23(a–b))

Holotrichia (Eotrichia) hainanensis CHANG, 1965, 247–248 (Kwangton: Hainan).

Distribution. China (Hainan), Thailand [new record], Burma [new record].

Specimens examined. 1 ♂, Fang, CM, 14~15–V–1983 [OPU]; 1 ♂, 1 ♀, Doi Inthanon, CM, 21–V–1983 [OPU]; 1 ♀, sl., 5–IV–1988, P. EK-AMNUAY leg.; 1 ♀, Doi Pui, CM, 3–VI–1986, HH leg.; 1 ♂, CM, V–1985; 1 ♀, Doi Chiang Khian, CM, 29–V–1983 [OPU]; 1 ♂, Khao Yai, C. Thailand, 18–VI–1983 [OPU]; 1 ♂, “A. K. Weld Downing Burma”, “cum Type comparatum”, “*Holotrichia ciliaticollis* Mos. det. G. FREY, 1969”, “Zool. Mus. Berlin”; 1 ♀, “Burma, Maymyo ANDREWES IV. 10”, “cum Type comparatum”, “*Holotrichia ciliaticollis* Mos. det. G. FREY, 1969”, “Zool. Mus. Berlin.”

Notes. The present species is closely allied to *H. (E.) ciliaticollis* MOSER, 1912, from Tonkin, but is distinguishable from the latter by the following points: 1) Pronotal anterior margin with long hairs moderately or sparsely except at the middle; 2) pronotal anterior angle not protrudent; 3) shape of male genitalia. Arithmetic data are as follows: ♂–IN/HW 0.64–0.69 (A 0.67); FW/FL 0.33–0.38 (A 0.36); ♀–IN/HW 0.66–0.72 (A 0.68); FW/FL 0.38–0.40 (A 0.39).

6. *Holotrichia (Eotrichia) scrobiculata* BRENSKE, 1892

(Figs. 6, 24(a–b))

Holotrichia scrobiculata BRENSKE, 1892, 174–175 (Sikkim); FREY, 1971, 209.

Holotrichia (Eotrichia) scrobiculata: CHANG, 1964, 247–248.

Distribution. China, NE. India, Thailand [new record], Burma [new record].

Specimens examined. 1 ♀, “Sikkim”, “*Holotrichia scrobiculata* BRSK type ♀”, “*scrobiculata* BRSK”, “coll. BRENSKE”, “Zool. Mus. Berlin”; 1 ♂, “Shin-Guy-Foo, Chine”, “*scrobiculata*”, “Zool. Mus. Berlin”; 1 ♂, “Kiautschou, China”, “*scrobiculata*”, “Zool. Mus. Berlin”; 1 ♂, Doi Chiang Khian, CM, 27~29–V–1983 [OPU]; 1 ♂,

12. *Empectida tonkinensis* MOSER, 1914

(Figs. 12, 27(a-b))

Empectida tonkinensis MOSER, 1914, 69 (Tonkin: Montes Mauson).*Distribution.* N. Vietnam, Thailand [new record].*Specimens examined.* 1 ♂, 4 ♀♀, Fang, CM, 14~17-V-1983 [OPU]; 1 ♀, Mae Hong Son, NW. Thailand, V-1987; 1 ♂, Maeta Teak replantation Forest, Lang Phrae Prov., N. Thailand, 18-V-1985, MS leg.; 1 ♀, Wieng Ko Sai N. P., Phrae Prov., N. Thailand, 18-V-1985, MS leg.; 1 ♀, Khao Yai, C. Thailand, 15, 20-VI-1983 [OPU]; 1 ♀, Pukhieo, Chaiyaphum, C. Thailand, 5-VI-1986, P. EK-AMNUAY leg.; 2 ♂♂, Ban Nang Bang, Sai Yok, W. Thailand, 11~15-V-1985, MS leg.13. *Hoplosternus maculatus* CHANG, 1983

(Figs. 13, 28(a-b))

Hoplosternus maculatus CHANG, 1983, 395-396 (Yunnan).*Distribution.* China (Yunnan), Thailand [new record].*Specimens examined.* 3 ♂♂, 1 ♀, Doi Pakia (ca. 1,500 m alt.), CM, 5-XI-1985 [OPU]; 5 ♂♂, 7 ♀♀, Doi Inthanon, CM, X~XI-1985, NK leg.; 1 ♀, sl., 1989; 1 ♂, Wiang Papao, CM, 1992; 1 ♀, CM, IX-1985, NK leg.; 2 ♂♂, 1 ♀, Doi Pui, CM, X-1985, A. COTTON leg.14. *Melolontha malaccensis* (MOSER, 1913), comb. nov.

(Figs. 14(a-b), 29 (a-b))

Hoplosternus malaccensis MOSER, 1913, 289-290 (Malacca: Kwala Kangsar).*Distribution.* Malaysia, Thailand [new record], Burma [new record].*Specimens examined.* 1 ♂, 1 ♀, Fang, CM, 15~17-V-1983 [OPU]; 1 ♂, Doi Pui (ca. 1,300 m alt.), CM, 30-V-1983 [OPU]; 1 ♀, sl. 26~27-X-1985 [OPU]; 1 ♀, sl., 1~4-IX-1987 [OPU]; 2 ♀♀, sl., X-1984; 1 ♂, 1 ♀, sl., VI-1987; 1 ♂, Doi Suthep, CM, 1-VI-1980, MT leg.; 1 ♂, 1 ♀, sl., X-1984; 1 ♂, 1 ♀, CM, IV~VI-1985, NK leg.; 1 ♂, sl., V-1987; 2 ♂♂, 2 ♀♀, Wiang Papao, CM, VIII-1992; 1 ♂, Doi Mae Salong, CM, 21-IV-1992, KK leg.; 2 ♂♂, 4 ♀♀, Chiang Dao, near CM, 1985; 4 ♀♀, sl., 1987; 1 ♀, Nan, N. Thailand, 5-IX-1987; 1 ♂, N. Thailand, 1987; 1 ♀, Khao Yai, C. Thailand, 24-IX-1987 [OPU]; 1 ♂, 1 ♀, Dawna, SE. Burma, 1-IV~2-V-1992.15. *Melolontha gressitti* FREY, 1970

(Figs. 15, 30(a-b))

Melolontha gressitti FREY, 1970, 108-109 (Thailand: Chiang Mai).*Distribution.* Thailand.*Specimens examined.* 2 ♂♂, 1 ♀, Fang, CM, 14~17-V-1983 [OPU]; 2 ♂♂, Doi

Suthep (ca. 600 m alt.), CM, 20-V-1983 [OPU]; 2♂♂, 2♀♀, CM, V~VI-1985, NK leg.; 1♂, 3♀♀, Doi Pui, CM, 8~27-V-1985; 3♀♀, Chiang Dao, N. Thailand, 1985; 1♀, sl., V-1987; 1♀, Khao Yai, C. Thailand, 15-VI-1983 [OPU].

16. *Melolontha alboplagiata* BRENSKE, 1898

(Figs. 16(a-b), 31(a-b))

Melolontha alboplagiata BRENSKE, 1898, 236-237 (Sikkim).

Distribution. NE. India, Thailand [new record].

Specimens examined. 1♀, "Type", "India, Sikkim, ex coll. FRUHSTORFER", "*Melolontha alboplagiata* type BRSK ♀", "coll. BRENSKE", "Zool. Mus. Berlin"; 1♀, Samoeng, CM, 1-V-1988, AY leg.; 1♂, Wiang Papao, CM, 27-V-1990, K. KUME leg.; 1♂, Doi Sang, N. Thailand, 10~13-V-1990, K. KUME leg.; 1♀, Pukhieo, Chaiyaphum, C. Thailand, 16-V-1989, P. EK-AMNUAY leg.; 2♀♀, sl., 5-VI-1986, same collector; 1♀, Khao Yai, C. Thailand, 15-VI-1983 [OPU].

Notes. The 1st lamellate segment of the antenna is about a half as long as the remaining lamellate ones in the female specimens from Thailand, while that of the holotype from Sikkim is one-fourth as long. The bases of the upper margins of posterior 4 femora are strongly sinuate in the specimens from both the areas.

17. *Exolontha castanea* CHANG, 1965

(Figs. 17, 32(a-b))

Exolontha castanea CHANG, 1965, 226-228 (Vietnam, China: Kwangtung).

Distribution. Vietnam, China, Thailand [new record].

Specimens examined. 1♀, Cuc Phuong, Ninh Binh, Vietnam, 28-IV~1-V-1993, M. HORI leg.; 2♂♂, 1♀, Tam Dao, Vinh Phu, Vietnam, 10-VI-1991; 1♀, sl., 3~8-VI-1990, M. ITOH leg.; 3♀♀, Erawan Resort, CM, 23-IV-1992, KK leg.; 1♀, Chiang Dao, N. Thailand, V-1987; 1♀, Khao Yai, C. Thailand, 15-V-1983 [OPU].

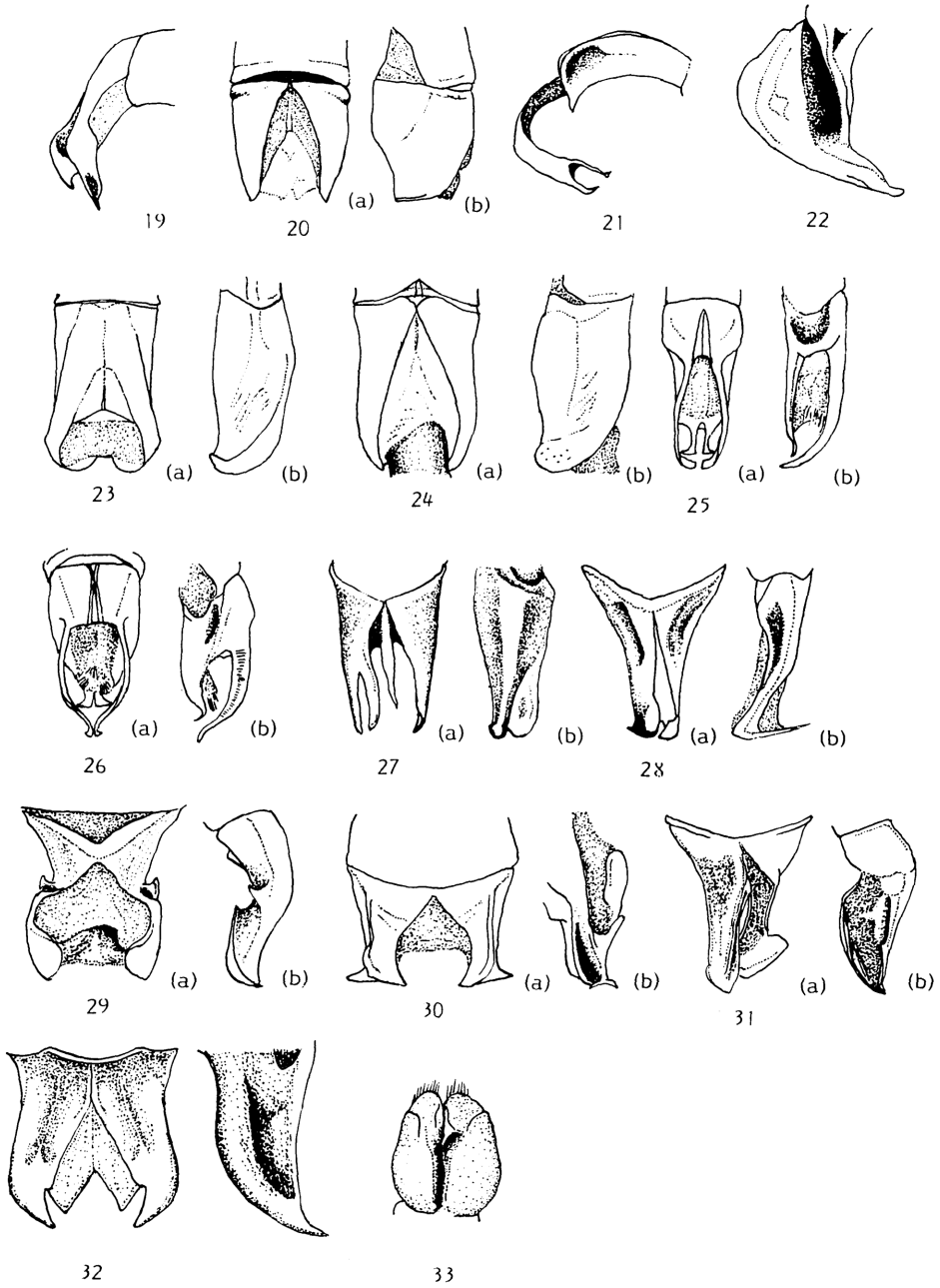
18. *Polyphylla tonkinense* DEWAILLY, 1945

(Fig. 18)

Polyphylla tonkinense DEWAILLY, 1945, 47 (Vietnam, Laos, China); 1948, 114-115.

Distribution. Vietnam, Laos, China, Thailand [new record], Malaysia [new record].

Figs. 19-33. Male genitalia (19-32).— 19, *Holotrichia planicollis*; 20(a-b), *H. nigricollis*; 21, *H. yunnana magna* subsp. nov.; 22, *Megistophylla andrewesi*; 23, *H. hainanensis*; 24(a-b), *H. scrobiculata*; 25(a-b), *Miridiba sus*; 26(a-b), *M. tuberculipennis obscura* subsp. nov.; 27(a-b), *Empectida tonkinensis*; 28(a-b), *Hoplosternus maculatus*; 29(a-b), *Melolontha malaccensis*; 30(a-b), *M. gressitti*; 31(a-b), *M. alboplagiata*; 32(a-b), *Exolontha castanea*.— 33. Female genitalia of *Holotrichia yunnana magna* subsp. nov.



Specimens examined. 1♀, Fang, CM, 15-V-1983 [OPU]; 1♂, Doi Pui (ca. 1,300 m alt.), CM, 30-V-1983 [OPU]; 2♂♂, sl. (ca. 1,300 m alt.), 1~4-IX-1987 [OPU]; 4♂♂, sl., 25-V~23-VII-1984; 2♂♂, sl., VI-1987; 1♀, sl., V-1985, A. COTTON leg.; 1♀, Doi Inthanon, CM, VII-1987, NK leg.; 1♀, Wiang Papao, CM, 22-V-1991; 2♂♂, sl., VIII-1992; 2♂♂, 19 miles, Perak, Malaysia, IV~VI-1988; 2♂♂, Cameron Highlands, Malaysia, V-1986; 1♂, sl., V-1992.

要 約

伊藤 武：タイのコフキコガネ科の研究，II。——今回は，種名の判明したコフキコガネ既知種16種の記録を示し，必要なものにはコメントを加えた。さらに2新亜種，*Holotrichia yunnana magna* と *Miridiba tuberculipennis obscura* の記載を行った。

Literature Cited

- ARROW, G. J., 1941. Entomological results from the Swedish Expedition 1934 to Burma and British India. Coleoptera: Melolonthidae. *Ark. Zool.*, **33A** (8): 1-8.
- 1948. Further notes on the beetles genus *Lachnosterna* (Col.: Melolonthinae), with descriptions of 3 new genera. *Proc. R. ent. Soc. London*, (B), **17**: 49-54.
- BRENSKE, E., 1892. Neue Arten der Coleopteren-Gattung *Holotrichia* (*Lachnosterna*). *Berl. ent. Z.*, **37**: 159-192.
- 1894. Die Melolonthiden der palaearktischen und orientalischen Region im königlichen naturhistorischen Museum zu Brüssel. *Mém. Soc. ent. Belg.*, **2**: 1-87.
- 1894. Zur Kenntnis der Melolonthiden Sumatra's. *Stett. ent. Ztg.*, **55**: 274-280.
- 1898. Einige neue Melolonthiden. *Ibid.*, **59**: 236-248.
- CHANG, Y-w., 1964-'65. Revision of Chinese may beetles of the genus *Holotrichia* HOPE I, II, III. (Coleoptera: Scarabaeidae). I: *Acta zootax. sin.*, **1**: 139-152 (1964); II: *Ibid.*, **1**: 247-260 (1964); III: *Ibid.*, **2**: 37-56 (1965).
- 1965. On the Chinese species of the melolonthine genus *Exolontha*. *Ibid.*, **2**: 225-232.
- 1983. A new species of the genus *Hoplosternus* GUERIN (Coleoptera: Melolonthidae). *Ibid.*, **8**: 395-396.
- (=ZHANG., Y-w.), 1981. Coleoptera: Scarabaeoidea. *Xizang Kunchong*, **1**: 339-354. Science Press, Beijing.
- DEWAILLY, P., 1948. Étude sur le genre *Polyphylla* HARRIS en extre-orient (Col. Scarabaeidae). *Notes Ent. chin.*, **12**: 99-121.
- FELSCH, C., 1901. Zwei neue Scarabaeiden. *Dtsch. ent. Z.*, **1901**: 359-361.
- FREY, G., 1970. Bestimmungstabelle der *Holotrichia*-Arten Hinterindiens (Vietnam, Laos, Thailand, Kambodscha, Burma, Malay) (Col. Scarab., Melolonthinae). *Ent. Arb. Mus. G. Frey*, **21**: 244-265.
- 1970. Neue Melolonthiden aus Indo-China. *Ibid.*, **21**: 108-111.
- 1971. Bestimmungstabelle der indischen und ceylonesischen Arten der Gattung *Holotrichia* HOPE (Col., Melolonth.). *Ibid.*, **22**: 206-225.
- MOSER, J., 1909. Neue Arten der Melolonthiden-Gattungen *Holotrichia* und *Brahmina*. *Annl. Soc. ent. Belg.*, **53**: 468-478.
- 1912. Neue Arten der Melolonthiden-Gattungen *Holotrichia* und *Pentelia*. *Ibid.*, **56**: 420-449.
- 1913. Beitrag zur Kenntnis der Melolonthiden (Col.). *Dtsch. ent. Z.*, **1913**: 271-297.
- SAUNDERS, W. W., 1839. Description of six new East Indian Coleoptera. *Trans. ent. Soc. London*, **2** (B-17): 49-54.
- Literatures shown in this series I are omitted.