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New or Little Known Chrysomelidae (Coleoptera) from Japan and its Adjacent Regions I

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Synopsis *Gonioctena* (*Sinomela*) *hikosana* and *Chaetocnema* (*Tlanoma*) *kanmiyai* are described as new species, and *Gonioctena chujoi* MEDVEDEV, *Phyllodecta multipunctata* (JACOBY) and *Monolepta tsushimanum* KIMOTO are treated as new synonyms of *Gonioctena* (*Gonioctena*) *honshuensis* NAKANE, *Phratora laticollis* SUFFRIAN and *Monolepta nojiriense* NAKANE, respectively. Keys to the Japanese species of *Phratora* and *Chaetocnema* (*Tlanoma*) are given. Some records of *Gonioctena* and *Phratora* species are revised.

In the present paper, the author is going to describe two new species of the chrysomelid beetles from Japan and to report three unrecorded synonyms together with some taxonomic notes.

Before going further the author expresses his gratitude to Dr. F. HIEKE, Zoologisches Museum, Berlin, Mr. K. KANMIYA, Kurume University, Mr. T. Shibata and Mr. Y. HAYASHI, Osaka, who kindly gave him the opportunity to examine interesting materials.

Subfamily Chrysomelinae

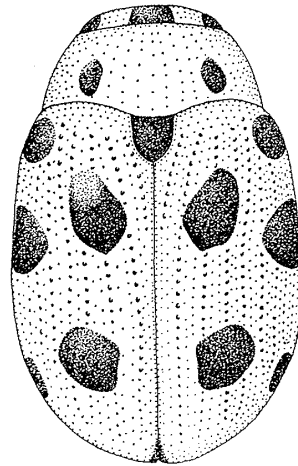
Gonioctena (*Sinomela*) *hikosana* n. sp.

Body ovate, strongly convex. Reddish brown; head with a small black basal marking, pronotum with a pair of black subbasal markings which are free from basal margin, and elytron with five black dorsal markings, viz. humeral, subbasal, lateromedian, postmedian and lateroapical ones, together with apex of sutural margin black, scutellum pitchy black, antenna entirely yellowish brown, ventral surface black, legs reddish brown; in one specimen dorsal surface of femur and tibia infusate.

Vertex sparsely impressed with distinct punctures, and their interstices with much finer ones, frontoclypeus depressed, delimited behind by a pair of distinct oblique grooves which meet at middle. Antenna shorter than half of body length, robust, first joint robust, longest, club-shaped, second nearly half as long as first, slightly longer than wide, third $1\frac{1}{3}$ times as long as second, and much slenderer, fourth subequal to third in length and shape, fifth nearly $\frac{3}{4}$ as long as fourth, sixth subtriangular, subequal to fifth in length but much robuster, seventh subequal to sixth in length and much wider, eighth $1\frac{1}{5}$ times as long as and ro-

buster than seventh, eighth to tenth subequal to one another in length and shape, eleventh $1 \frac{2}{3}$ times as long as tenth and its apex pointed. Pronotum transverse, $2 \frac{1}{5}$ times as wide as long, anterior margin distinctly emarginate, and its median portion almost straight, lateral margin almost straight, narrowed anteriorly, basal

Fig. 1. *Gonioctena (Sinomela) hikosana* n. sp.



margin rounded posteriorly slightly produced at middle, anterior angle obtuse, posterior angle nearly rectangular, anterior and posterior corners each with a setigerous puncture, dorsal surface impressed with large punctures at sides and with smaller ones at middle, and their interstices closely impressed with minute punctures. Scutellum hemispherical, smooth, impunctate. Elytron rounded laterally, widest almost at middle and gradually narrowed posteriorly, with regularly arranged eleven longitudinal rows of punctures, and their interstices rather closely impressed with minute punctures.

Length: 5.5–6.0 mm.

Holotype: Mt. Hiko, Fukuoka Pref., Japan (12. V. 1965, S. KIMOTO) (Type No. 2020, Kyushu Univ.).

Paratopotype: 1 ex., same as the holotype.

Distribution. Japan (Kyushu).

This new species closely resembles *G. (S.) nagaii* NAKANE from Okinoerabujima in Amami Is., but differs in having the ventral surface entirely blackish. Also from *G. (S.) biplagiata* (BALY) from Japan and China, this species is separable in having the characteristic markings of the dorsal surface.

Gonioctena (Gonioctena) honshuensis NAKANE

Gonioctena (Gonioctena) sibirica: KIMOTO, 1963, *Fragm. Coleopt.* (ed. NAKANE), (3): 4 (Hokkaido); 1964, *J. Fac. Agr. Kyushu Univ.*, **13**: 280, 281 (Japan: Hokkaido, Honshu).

Gonioctena (s. str.) *honshuensis* NAKANE, 1963, *Fragm. Coleopt.* (ed. NAKANE), (5): 19 (Japan: Shimashima).

Gonioctena chujoi L. MEDVEDEV, 1966, Forest Ent.—Fauna Kuril., Kamch. & Magad., 41, fig. 2 (Kuriles).—TAKIZAWA, 1971, Kontyû, Tokyo, 39: 177 (Kurile). *New Synonymy*.

Distribution. Kuriles, Japan (Hokkaido, Honshu).

The identification of *sibirica* WEISE by KIMOTO (1963) was based on BECHYNÉ's monograph of this genus. According to MEDVEDEV (1966), BECHYNÉ's identification of this species was erroneous and *sibirica sensu* BECHYNÉ was described under the name of *chujoi* L. MEDVEDEV. However, *honshuensis* NAKANE has the priority for the present species and *chujoi* L. MEDVEDEV becomes a junior synonym.

***Gonioctena (Gonioctena) orientalis* (WEISE)**

Phytodecta linnaeana var. *orientalis* WEISE, 1884, Ins. Deutschl., 6 (3): 498 (W. Siberia: Orenburg).

Phytodecta viminalis ab. *karafutensis* KÔNO et TAMANUKI, 1926, Dôbutsugaku-Zasshi, Tokyo, 38: 294 (Sachalin: Adotimowo).

Phytodecta (Phytodecta) orientalis: BECHYNÉ, 1947, Acta Mus. Natn. Prague, 3B (3): 122, 145 (Rossia or., Caucasus).

Specimen examined. 1 male, Sachalin Borissow S. G. (Zool. Mus. Berlin).

Distribution. W. Siberia, Sachalin.

Based on a specimen taken from Adotimow, KÔNO and TAMANUKI (1926) recorded *viminalis* LINNÉ (ab. *karafutonis* KÔNO et TAMANUKI) from Sachalin. In the collection of the Zoological Museum, Berlin, the author found a Sachalin specimen which perfectly agreed with KÔNO and TAMANUKI's illustration of *viminalis* ab. *karafutonis*. As a result of the examination of male genitalia, it was proved

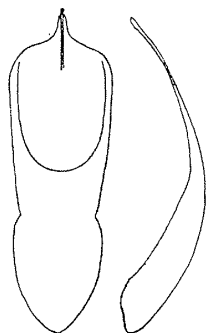


Fig. 2. Male genitalia of *Gonioctena (Gonioctena) orientalis* (WEISE) (after specimen from Sachalin).

that the record by KÔNO and TAMANUKI should be corrected as *Gonioctena orientalis* WEISE. As regards the taxonomic status of *orientalis* WEISE, STRAND (1969; Norsk Ent. Ts., 16: 115–117) called in question to treat *orientalis* as an independent species and suggested as a subspecies of *linnaeana*.

***Phratora laticollis* SUFFRIAN**

Phratora laticollis SUFFRIAN, 1851, Linn. Ent., 5: 262 (Europe).

Phyllodecta laticollis: WEISE, 1884, Ins. Deutschl., 6 (3): 52 (Europe); 1890, Dtsch. ent. Z., 1890: pl. 2 (male genitalia).—REITTER, 1912, Fauna Germ., 4: 131 (key).—BRIVIO, 1958,

Boll. Soc. ent. Italia, **88**: 41 (male genitalia).—MEDVEDEV, L., 1965, Det. Ins. Soviet Europe, **2**: 446 (key & male genitalia).

Phyllodecta multipunctatus JACOBY, 1890, Entomologist, **23**: 117 (China).—CHEN, 1934, Rech. Chrysom. Chine et Tonkin, **78**; 1938, Ann. Soc. ent. France, **106**: 297 (China). *New Synonymy*.

Phyllodecta (Phyllodecta) laticollis: CHÛJÔ, 1959, Mem. Fac. Lib. Arts & Educ. Kagawa Univ., **2** (81): 10 (Japan: Hokkaido, Rishiri-to).

Phratora multipunctata: GRESSITT & KIMOTO, 1963, Pacif. Ins. Mon., **1B**: 369 (China).—KIMOTO, 1964, J. Fac. Agr. Kyushu Univ., **13**: 284 (Japan: Hokkaido, Honshu).

Distribution. Europe, Armenia, Asia Minor, Siberia, Mongolia, China, Japan (Hokkaido, Rishiri Is., Honshu).

CHÛJÔ (1959) recorded *laticollis* SUFFRIAN from Hokkaido and Rishiri Is., and KIMOTO (1964) recorded *multipunctata* JACOBY from Hokkaido and Honshu. However, these two species seem to be the same and *multipunctata* becomes a synonym of *laticollis*.

Phratora inhonesta (WEISE)

Phyllodecta (Chaetocera) inhonesta WEISE, 1884, Ins. Deutschl., **9** (3): 514, nota (Kjachta, Sarepta); 1890, Dtsch. ent. Z., **1890**: pl. 2 (male genitalia).

Phyllodecta longulus: CHÛJÔ, 1959, Mem. Fac. Lib. Arts & Educ. Kagawa Univ., **2** (81): 9 (Japan: Hokkaido).

Phratora inhonesta: GRESSITT & KIMOTO, 1963, Pacif. Ins. Mon., **1B**: 369 (E. Siberia, Manchuria).—KIMOTO, 1965, Kontyû, Tokyo, **33**: 312 (Kuriles: Etorofu).—KIMOTO & HIURA, 1971, Bull. Osaka Mus. Nat. Hist., **25**: 14 (Hokkaido).

Distribution. E. Siberia, Manchuria, Kuriles, Japan (Hokkaido).

KIMOTO and HIURA (1971) recorded *inhonesta* from Hokkaido. On the other

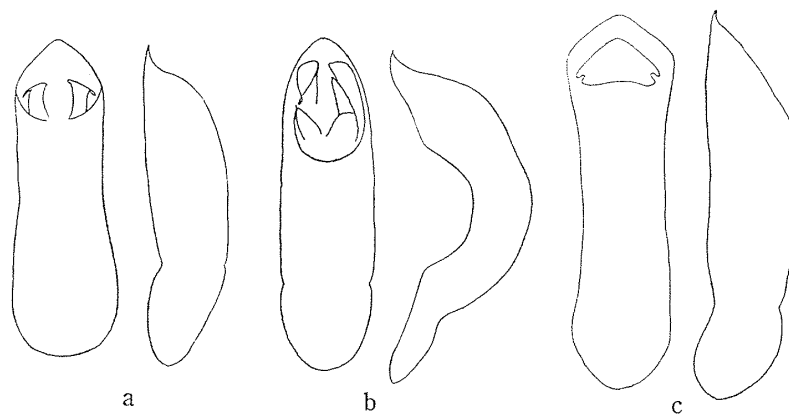


Fig. 3. Male genitalia. — a, *Phratora grandis* (CHÛJÔ); b, *P. laticollis* SUFFRIAN; c, *P. inhonesta* (WEISE).

hand, CHÛJÔ (1959) recorded *longulus* MOTSCHULSKY from Hokkaido. However, many species described under the genus *Phratora* by MOTSCHULSKY (1860, in SCHRENCK's Reisen Amurl., 2) are not well defined. In this paper, the author treats

the record of *longulus* by CHÛJÔ under the present species.

Key to the Japanese Species of *Phratora*

1. Third antennal joint $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as second, fourth to sixth joints without particular long hairs, except for ordinary ones2
- Second and third antennal joints subequal to each other in length and shape, fourth to sixth joints thickly covered with long hairs; length 4.6–4.8 mm (WEISE, 1884)*inhonesta*
2. Elytron with a distinct lateral costa; length 4.8–5.3 mm (CHÛJÔ, 1957)..*grandis*
- Elytron without any distinct lateral costa; length 3.8–4.8 mm (SUFFRIAN, 1851)*laticollis*

Subfamily Galerucinae

Monolepta nojiriense NAKANE

Monolepta nojiriensis NAKANE, 1963, *Fragm. Coleopt.* (ed. NAKANE), (5): 20 (Japan: Noziri in Nagano Pref.).

Monolepta tsushimanum KIMOTO, 1965, *J. Fac. Agr. Kyushu Univ.*, **13**: 390, 393 (Japan: Tsushima).—KIMOTO & HIURA, 1971, *Bull. Osaka Mus. Nat. Hist.*, **25**: 17 (Japan: Hyogo Pref.).—KIMOTO, 1972, *Kurume Univ. J.*, **20**: 10 (Japan: Mt. Kujû in Oita Pref.). *New Synonymy*.

Specimen examined. Ina-Dani, Nagano Pref. (1 ex., 30. VII. 1958, Y. HAYASHI leg).

Distribution. Japan (Honshu, Kyushu, Tsushima).

According to the study on the type of *nojiriensis* in the NAKANE Collection, *tsushimanum* described by the author seems to be a synonym of the present species.

Subfamily Alticinae

Chaetocnema (Tlanoma) kanmiyai n. sp.

Ovate. Bluish black, antennae pitchy black with three or four basal joints brownish, legs pitchy black with slight bluish luster, tibiae and tarsi reddish brown.

Head very finely granulate; vertex impunctate, except for one or two large punctures lying on each side close to eye; interantennal space distinct, wide and feebly raised, and not distinctly separated from frons. Antennae relatively slender, nearly half as long as body length, first joint robust, club-shaped, second nearly $\frac{3}{4}$ as long as first and twice as long as wide, third very slightly longer than second and distinctly slenderer, fourth and fifth subequal to third in length and shape, sixth very slightly shorter than fifth, seventh subequal to sixth in length but slightly robuster, eighth to tenth subequal to seventh in length and shape, and eleventh the longest, $1\frac{3}{4}$ times as long as tenth and its apex pointed. Pronotum transverse, nearly twice as wide as long, narrowed anteriorly; anterior margin almost straight, anterior corner thickened, showing nearly right angle and posterior corner showing

about 120°, each with a setigerous puncture; lateral margin rounded, widest at 1/3 from basal margin and narrowed anteriorly and less strongly so posteriorly; posterior margin rounded posteriorly; dorsum rather closely and distinctly punctured and their interstices smooth, shining, and with a transverse row of deep punctures parallel to basal margin. Scutellum hemispherical and its surface finely granulate. Elytron convex, strongly and regularly punctate, interstices of punctate-striae flattened, closely impressed with fine punctures, elytral epipleuron convex, smooth, shining, impunctate.

Length: 2.0 mm

Holotype: Chôjabaru, Mt. Kujû, Oita Pref. (26. VII. 1969, K. KANMIYA) (Type No. 2021, Kyushu Univ.).

Paratopotype: 1 ex., same as the holotype.

Distribution. Japan (Kyushu).

This new species closely resembles *G. (T.) yaosanica* CHEN, from Kwangsi, S. China, but differs in having the punctures of pronotum much strongly and closely impressed and the femora of anterior and middle legs almost entirely pitchy black. From *tonkinensis* CHEN, this species is separable by having the size larger and the elytron with the interstices flattened mesally and weakly swollen laterally.

Key to the Japanese Species of *Chaetocnema* (*Tlanoma*)

1. Pronotum with a transverse row of deep punctures parallel to basal margin2
- Pronotum without any transverse row of deep punctures parallel to basal margin3
2. Pronotum finely and sparsely punctured; shining black, antenna yellowish brown with six or seven apical joints brownish black, legs reddish brown with femora pitchy black; length 1.5–2.0 mm (BALY, 1877; India, Ceylon, Burma, Indo-China, S. China, Taiwan, Ryukyu Is., Japan: Yakushima).....*basalis*
- Pronotum distinctly and closely punctured; shining black, antenna pitchy black with four or five basal joints brownish, legs reddish brown with femora pitchy black; length 2.0 mm (KIMOTO, n. sp.; Japan: Kyushu).....*kanmiyai*
3. Dorsal surface bicolor; head, pronotum and scutellum cupreous and elytron blackish blue.....4
- Dorsal surface entirely cupreous or bluish black.....5
4. Elytral epipleuron glabrous, smooth, somewhat convex; heart-shaped punctures impressed on interstices of punctate-striae of elytron rather obsolete; antenna blackish with three or four basal joints reddish brown; legs reddish brown with two anterior pairs of femora fuscous, posterior one blackish; length 1.8–2.0 mm (KIMOTO, 1971; Japan: Honshu; =*koreana*: KIMOTO, 1965, nec CHÛJÔ, 1942).....*bicolorata*
- Elytral epipleuron sparsely pubescent, heart-shaped punctures rather strong; blackish blue, head, dorsal surface of pronotum and scutellum cupreous;

- antenna blackish brown, three or four basal joints reddish brown; legs blackish brown; apical half of tibiae and tarsi reddish brown; length 2.2–2.5 mm (CHÛJÔ, 1942; Korea, Japan: Hokkaido, Honshu; =*septentrionalis* KIMOTO, 1965)*koreana*
5. Interstices of punctate-striae of elytron impressed by round punctures.....6
- Interstices of punctate-striae of elytron impressed by heart-shaped punctures; dorsal surface blackish blue; antennae reddish brown with five or six apical joints fuscous; legs reddish brown, with two anterior pairs of femora fuscous and posterior one blackish; length 1.8–2.0 mm (BALY, 1874; Taiwan, Ryukyu Is., Japan: Honshu, Hachijô, Shikoku, Kyushu, Tsushima; =*koreana*: SHIRÔZU et KIMOTO, 1957, *nec* CHÛJÔ, 1942).....*granulosa*
6. Dorsal surface cupreous; length less than 2.5 mm.....7
- Blackish blue, antenna pitchy black with three or four basal joints brownish, legs bluish black with anterior and middle tibiae pitchy brown; length 3.2 mm (HEIKERTINGER, 1941; Manchuria, Japan: Honshu).....*major manchurica*
7. Body rather slender, lateral margin of pronotum straight; cupreous, antenna reddish brown, with four or five apical joints infuscate; legs reddish brown, femora blackish; length 1.8–2.0 mm (BALY, 1877; Indo-China, China, Taiwan, Ryukyu Is., Japan: Hokkaido, Honshu, Hachijô, Shikoku, Kyushu, Tsushima, Tanegashima, Yakushima).....*discreta*
- Body rather robust, lateral margin of pronotum rounded; in male elytral surface very minutely granulate; cupreous, antenna piceous with four or five basal joints reddish brown; legs deep blackish brown; tibiae and tarsi dark reddish brown; length 1.9–2.2 mm (MARSHALL, 1802; Europe, Siberia, C. Asia, Mongolia, Korea, Japan: Hokkaido, Honshu, Shikoku, Kyushu, Tsushima; =*lewisii* CHÛJÔ, 1942)*concinna*