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Description of a New Species of the Genus *Chrysolina* (Coleoptera, Chrysomelidae) from Central Honshu, Japan

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Abstract A new species of the genus *Chrysolina* (Chrysomelidae, Chrysomelinae) is described from central Honshu, Japan, under the name of *Chrysolina* (*Erythrochrysa*) *kirigaminensis* K. SUZUKI et S. SAITOH, with the records of their host plants and some notes on their life history. This new species resembles *Chrysolina* (*Erythrochrysa*) *polita* (LINNAEUS, 1758) but is easily distinguished from the latter by having nearly parallel posterior lateral margins of pronotum, a considerably stable body coloration in the elytra and the 5th abdominal sternite dark reddish brown, and almost all the remaining parts of the body almost pitchy black. This new species has hitherto been found in the region of the Kirigamine highlands only, Suwa-shi, Nagano Prefecture, central Honshu, Japan. We ascertained the following two host plants by field observation: *Lycopus maackianus* (MAXIM.) MAKINO [Japanese name: Hime-shirone], *L. uniflorus* MICHX. [Jpn. name: Ezo-shirone] (Labiatae). A synopsis of the life history of this new species is mentioned by field observation and the rearing data in the laboratory.

In the summer (July 25) of 1964 the senior author (K. S.) collected a strange adult beetle (it was probably a male), which was obviously assumed to belong to the genus *Chrysolina* (Chrysomelidae, Chrysomelinae), at Sawatari (ca. 36°07′N, 138°10′E, ca. 1,500 m alt.) in the Kirigamine highlands (ca. 1,300–1,700 m alt.), Suwa-shi, Nagano Prefecture, central Honshu, Japan. The beetle was walking on a small path in the grassland of the highlands. Apparently it resembled *Chrysolina* (*Anopachys*) *aurichalcea* (GEBLER in MANNERHEIM, 1825) except for the coloration especially of pronotum and elytra. The specimen must be preserved in a private collection of Mr. Masao OHNO (Professor Emeritus of Toyo University) at present. For 43 years since then nobody has rediscovered such a type of *Chrysolina* species anywhere in the Japanese Islands. Regrettably, in spite of repeated entreaties to return the first specimen to Mr. OHNO we were not able to take an opportunity to reexamine it. We knew only a little information from a very short description of the specimen in question given by K. S. in his short report on the chrysomelid fauna of the Kirigamine highlands (SUZUKI, 1965) written in Japanese as follows: "*Chrysolina* sp./ Sawatari (1 ex., 25–VII, '64). This closely resembles *Chrysolina* (*An*.) *aurichalcea* but is a clearly different independent species. It is distinguished from the latter species in having glossy black pronotum and brown elytra."

Fortunately, on October 15 and 17, 2007, K. S. accidentally captured 3 males and 1 female by random sweeping in and along the grassland at Kowashimizu (ca. 1,500 m alt.) in the Kirigamine highlands. Their body coloration appeared to correspond to that of the species in question. Kowashimizu is a neighboring place ca. 2.0 km far from the first collecting place Sawatari in 1965. After that K. S. was able to examine the late Dr. Yoshiaki KOMIYA's private collection in Tokyo through the courtesy of Mrs. Michiko KOMIYA and found out 1 female specimen of this species which was collected at Ike-no-kurumi (ca. 1,300 m alt.) in the Kirigamine

highlands on July 26, 1980. Ike-no-kurumi is also located near Kowashimizu. After careful examination of these five specimens in our hands we reached to the conclusion that they were essentially closely related to *Chrysolina* (*Erythrochrysa*) *polita* (LINNAEUS, 1758) who was widely distributed from Europe to the Far East Asia (cf. WARCHAŁOWSKI, 2003, 2010). It is known that populations from Iran and the Far East Asia (northwestern China and Mongolia) belong to the subspecies *C*. (*Er*.) *polita adamsi* BALY, 1879 (cf. LOPATIN, 1977; WARCHAŁOWSKI, 2003, 2010). As compared with the specimens from Caucasus of *C*. (*Er*.) *polita*, those from Japan in question are obviously distinguished from the former in several external morphological characters, especially shape of pronotum and body coloration. Though the population discovered in Japan has hitherto been limited to a very localized area only in the Kirigamine highlands, central Honshu, we suppose that it must be distributed in the neighboring region around the Kirigamine highlands. We consider that this new species has been derived from a common ancestor with *C*. (*Er*.) *polita*; i.e., they have a relationship of the so-called "sibling species" with each other. Though this completely isolated population from those of the Eurasian Continent can be regarded as a subspecies of the latter species as well as *C*. (*Er*.) *polita adamsi* if we follow a generally accepted subspecies concept, it must be much appropriate to treat as an independent species because we have very little information of the beetle and the so-called "lumping" taxonomic treatment will not bring us further useful information at present.

For abbreviations of the names of organs and/or their parts of the internal reproductive systems of both sexes and hind wing venation used in the following description, see SUZUKI (1988) for internal reproductive systems and SUZUKI (1994) for hind wing venation, respectively. For the assignation of the *Chrysolina* species to the subgenus, we provisionally follow BECHYNÉ (1950), BIEŃKOWSKI (2001, 2007), and WARCHAŁOWSKI (2010).

Before going into further details, we express our deep appreciation to Mr. Masahiro SAITO (Fukui) for his devoted help in our field survey of this new species. We also thank Mr. Itsuro KAWASHIMA for preparation of marvelous drawings of a habitus and of body parts.

Chrysolina (*Erythrochrysa*) *kirigaminensis* K. SUZUKI et S. SAITOH, sp. nov.

[Japanese name: Kirigamine-hamushi]

(Figs. 1–9)

This new species (Fig. 1) apparently resembles *Chrysolina* (*Erythrochrysa*) *polita* (LINNAEUS, 1758), but it differs from the latter in having almost straight posterior lateral margins of pronotum and considerably stable body coloration; i.e., pitchy black head, pronotum, and almost whole venter and dark reddish brown elytra. Until today, any *Chrysolina* species with such combination of body coloration in the pronotum and elytra has never been found anywhere in the Japanese Archipelago.

Body oblong oval, strongly convex dorsally, subparallel-sided and gently narrowed to the apices, very weakly (in male) or distinctly (in female) widened posteriorly.

General coloration. Dorsum: — Head metallic pitchy black; pronotum metallic pitchy black with very faintly dark greenish reflection under an intense light; scutellum and elytra dark reddish brown. Venter: — Largely pitchy black, with the apical marginal areas of 3rd to 4th abdominal sternites, almost whole 5th abdominal sternite, and elytral epipleura dark reddish brown.

Description. Head: — Surface of vertex nearly smooth, very fine punctures most of which bear very short white hairs scattered on almost whole area recognizable under high magnification;

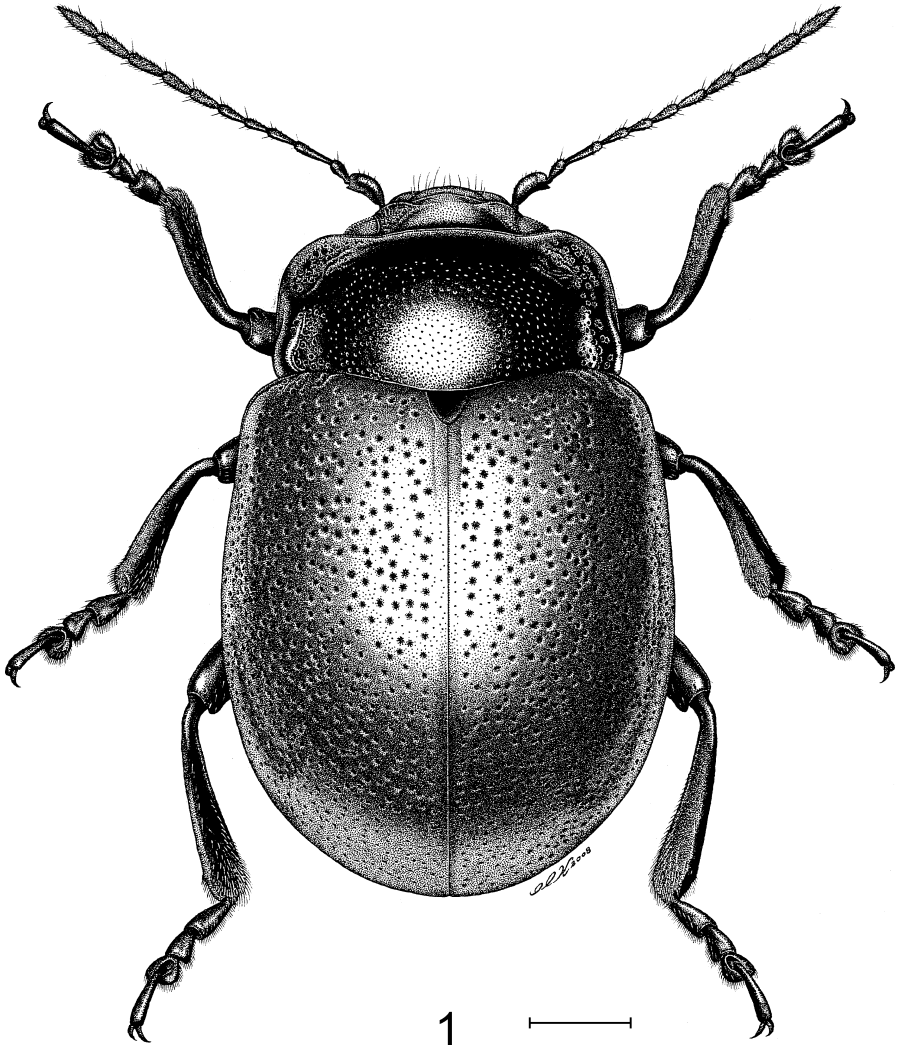
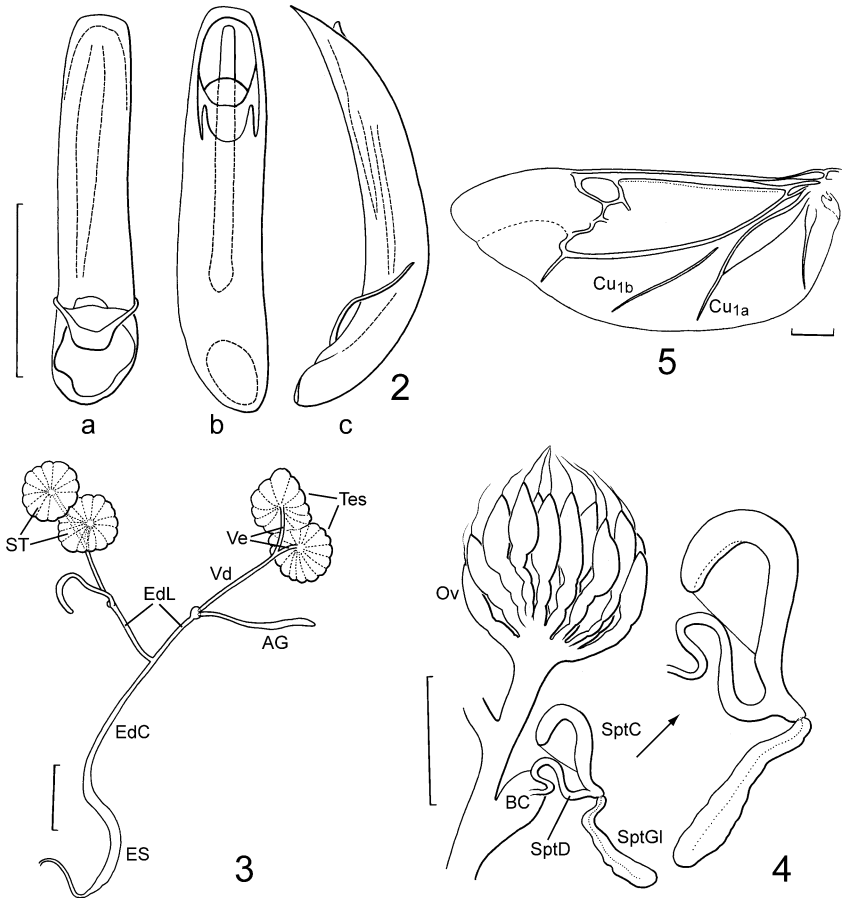


Fig. 1. Habitus of *Chrysolina* (*Erythrochrysa*) *kirigaminensis* K. SUZUKI et S. *S*AITOH, sp. nov. (holotype, ♂; from Kowashimizu, Kirigamine-kôgen, Suwa-shi, Nagano Prefecture, Honshu). Scale bar: 1.0 mm.

the basal half weakly raised; the frontal suture visible but shallow, with the lateral ends deeply scooped out; epicranial suture very weak but visible in male but almost invisible in female; orbital line distinct, deeply bordered with the inner margin of eyes; clypeus distinctly transverse, with the front margin gently curved anteriad and the basal margin weakly curved posteriad, with several long setae at the front lateral corners. Mouth-parts: — Labrum transverse, with the front margin shallowly but distinctly depressed at its middle, with irregular double rows of short pale yellowish and almost transparent setae along and slightly under the central transversal line and with several long yellowish setae at its front corners; maxillary palpi slender, all of three segments nealy equal in both length and maximum width, with the last segment subpentagonal with a truncated apex. Eyes large. Antennae filiform, nearly half in length as long as the body; 1st segments very strongly thickened, and nearly 1.7 times as long as the width, with the outer margin largely curved anteriad



Figs. 2–5. *Chrysolina* (*Er.*) *kirigaminensis*. —— 2, male genitalia (a. dorsal, b. ventral, c. lateral views); 3, male internal reproductive system; 4, female internal reproductive system; 5, left hind wing. For details see text. Scale bars: 1.0 mm.

and the inner one nearly straight; 2nd segments the shortest and weakly swollen anteriad; 3rd segments slightly shorter than 1st ones; 4th to 6th segments nearly equal in length and shorter than 3rd ones; 7th and 8th segments nearly equal in length and clearly longer than 4th to 6th ones; 9th and 10th segments nearly equal in length and slightly but clearly longer than 7th and 8th ones; 11th segments the longest with somewhat blunt and taper apices.

Pronotum transverse, subquadrate, about 2.5 times as long as the width, the widest at the posterior angles; the front margin distinctly emarginated, weakly depressed posteriorly, the central 3/5 nearly straight; dorsum convex, with distinct and deep depressions near both anterior and posterior corners; the corners gently rounded and projected anteriorly; the lateral margins nearly parallel-sided, becoming narrower anteriad and their basal 2/3 weakly rounded, covered with fine punctures in whole area; interstices finely granulated. Scutellum nearly a typical form of a simple coat of arms.

Elytra elongate, about 1.15 (male) or 1.20 (female) times as long as the width, the lateral margins not parallel, gently curved outwards, the widest near the middle; dorsum strongly convex, irregularly and distinctly punctate on whole surface. Hind wings weakly reduced, probably

lacking flight ability; venation (Fig. 5) typical in the Chrysomelinae, with Cu_{1a} and isolated Cu_{1b} not forked into subbranches.

Undersurface almost glabrous, scarcely covered with fine hairs.

Male genitalia (Fig. 2): — Median lobe well sclerotized, tubular, gently curved ventrad, with the apex weakly rounded.

Male internal reproductive system (Fig. 3): — Typical system in the Chrysomelinae; i.e., it consists of a pair of testes (Tes) on each side (apparently composed of 4 testes), a pair of vasa deferentia (Vd), a pair of accessory glands (AG), and an ejaculatory duct (Ed). Testis large, apparently a typical chrysanthemum flower-like shaped; each testis consists of an assemblage of about 12 sperm tubes (ST); vas efferens (Ve) about half to twice in length as wide as the testis. Vas deferens slender, tubular, and one to twice as wide as the testis. Accessory gland subtubular, short, nearly the same as long as the vas deferens. The apical part of ejaculatory duct forks into two short lateral ejaculatory ducts (EdL); common ejaculatory duct (EdC) forms weakly but distinctly developed ejaculatory sac (ES) distally; the basal part of ejaculatory duct from the basal extremity of ejaculatory sac to the opening of bursa copulatrix very short and slender.

Female internal reproductive system (Fig. 4): — Typical system in the Chrysomelinae. Sixteen ovarioles per ovary (Ov). Spermathecal organ (Fig. 4 b): – Spermathecal capsule (SptC): well sclerotized; the distal part fishhook-shaped with a gently curved and rounded apex; the proximal part simple, subtubular with the externally projected base to which spermathecal gland (SptGl) is connected – spermathecal duct (SptD): derived from the inner base of the proximal part of the capsule; well sclerotized, subtubular, slenderer than the proximal part of the capsule; the apical half gently tapered; the posterior half curved twice, forms a distinct S-shaped part, and connected to well developed bursa copulatrix (BC) – spermathecal gland: slenderer, gently swollen towards the apex, nearly the same as long as the proximal part of the capsule.

Measurement in mm. Body length (from anterior margin of frons to elytral apices): ♂, 6.2–7.8; ♀, 8.2–9.2. Maximum width of head (including eyes): ♂, 2.2–2.3; ♀, 2.3–2.4. Antennae length: ♂, 3.9–4.1; ♀, 4.1–4.2. Pronotum length (along the mid-line): ♂, 1.8–2.0; ♀, 2.0–2.1. Maximum width of pronotum: ♂, 3.5–3.7; ♀, 3.9–4.2. Elytra length: ♂, 5.4–5.9; ♀, 6.5–7.2. Elytra width: ♂, 4.5–4.9; ♀, 5.3–5.7. Hind tibiae length: ♂, 2.2–2.3; ♀, 2.3–2.5. Relative length of each of 1st to 11th antennal segments to 1st segment (no conspicuous difference in both sexes): 1.00 : 0.60 : 0.90 : 0.65 : 0.65 : 0.65 : 0.80 : 0.80 : 0.90 : 0.95 : 1.30.

Type series. Holotype: ♂ (NSMT–I–C200167), Kowashimizu [36°06′ N, 138°10′ E, ca. 1,500m alt.] Kirigamine-kôgen, Suwa-shi, Nagano Prefecture, Honshu, Japan, 15–X–2007, K. Suzuki leg. Allotype: ♀, Ike-no-kurumi [36°05′ N, 138°10′E, ca. 1,300 m alt.], Kirigamine-kôgen, 26–VII–1984. Y. Komiya leg. Paratypes, all of which were collected in Kirigamine-kôgen: 1 ♂, 1 ♀, Kowashimizu, 15–X–2007, K. Suzuki leg.; 1♂. Kowashimizu, 17–X–2007, K. Suzuki leg.; 3 ♂♂, 2 ♀♀, Ike-no-kurumi, 27–VII–2008, K. Suzuki & S. Saitoh leg.; 1 ♂, Kowashimizu, 27–VII–2008, K. Suzuki & S. Saitoh leg.; 2 ♂♂, 1 ♀, Ike-no-kurumi, 3–VIII–2008, S. Saitoh leg.; 1 ♀, Kowashimizu, 26–X–2008, K. Suzuki leg.; 1 ♀, Ike-no-kurumi, 6–VII–2009, K. Suzuki leg.; 1 ♂, Ike-no-kurumi, 7–VIII–2009, K. Suzuki leg.; 17 ♂♂, 8 ♀♀, Ike-no-kurumi, 10 & 11–VII–2010, K. Suzuki & M. Saito leg. The holotype, allotype and several paratypes are preserved in the collection of the Department of Zoology, National Museum of Nature and Science, Tokyo.

Taxonomic notes. *C*. (*Er*.) *polita* is a polytypic species; i.e., two subspecies, *C*. (*Er*.) *polita adamsi* (Baly, 1879) from several places of Iran, Mongolia and the Far East (Siberia and North China) (Baly, 1879; Gressitt & Kimoto, 1961–63; Bieńkowski, 2001, 2007; Warchałowski, 2003, 2010) and *C*. (*Er*.) *polita ogloblini* (Ter-Minasian, 1950) from Armenia

(BIEŃKOWSKI, 2001; WARCHAŁOWSKI, 2003, 2010), are known for this species besides the nominotypical subspecies. According to the key given by LOPATIN [1977, pp. 144–145 (pp. 210–211, in English translation edition)], *C.* (*Er.*) *polita adamsi* is distinguished from the nominotypical subspecies by having finely shagreened elytral background and denser and coarser rows of punctation. Several individuals of the nominotypical subspecies from Caucasus in our hands surely show such elytral characteristics as those mentioned in LOPATIN's key. The individuals of this new species from Japan are much closer in elytral fine punctures to some individuals of the nominotypical subspeciecs from western Europe in our hands than the Far East Asian subspecies of the species. The new species can be distinguished from these three subspecies including the nominotypical one of *C.* (*Er.*) *polita* in the pronotal structures; i.e., the posterior half of lateral margins of pronotum nearly straight in this new species from Japan but distinctly rounded in the above three subspecies of *C.* (*Er.*) *polita*. Additionally, a number of specimens from various regions of west Europe to the Far East Asia, which we identified as *C.* (*Er.*) *polita*, are variable in their body coloration, especially in that of pronotum (cf. WARCHAŁOWSKI, 2003, 2010). And this new species is quite different in its body coloration from any of the five color forms known for *C.* (*Er.*) *polita* (cf. WARCHAŁOWSKI, 2010). The Japanese population of the new species is distributed in a very localized area of central Honshu. Judging from above mentioned various circumstances, it seems appropriate that this peculiar Japanese population should be treated as an independent species at present.

Notes on the host plants. Here we show our results of field observation and simple experiment conducted for the host preference of this new species. First, the senior author (K. S.) attempted to confirm their host plants by direct observation in the field several times from the middle of October to the beginning of November 2007, but was unsuccessful. The four individuals rediscovered and collected on October 15–17, 2007, seemed newly emerged ones. It was already late autumn and almost all the grass plants on the Kirigamine highlands were withered up and dead. Based on the information about *C.* (*Er.*) *polita* from the Far East Asia region K. S. assumed at first the possibility of some plants of the Compositae as their hosts. Therefore, he gave fresh leaves of *Petasites japonicus* (SIEB. et ZUCC.) MAXIM. (Jpn. name: Fuki) collected at the same site to one pair in the laboratory. They preferably fed on them. On the other hand, JOLIVET & PETITPIERRE (1976) listed the Labiatae as the host plants of the subgenus *Erythrochrysa*. In July 2008, we made a field survey to find out their host plants focusing the Labiatae in several sites of the Kirigamine highlands and eventually discovered several individuals of this species feeding on the following two plants of the family: *Lycopus maackianus* (MAXIM.) MAKINO [Jpn. name: Hime-shirone], *L. uniflorus* MICHX. [Jpn. name: Ezo-shirone]. Probably other species belonging to the genus *Lycopus* may be utilized as their host plants in the field. Additionally, the junior author (S. S.) further attempted a simple host preference experiment for the Compositae in the laboratory as below. He gave a brief leaf (2×2 cm) of each of the following six plants of the Compositae obtained near the habitat of this new species, to six adults (3 ♂♂, 3 ♀♀) released in a plastic case after one-day fast: *Cirsium* sp. [Jpn. name: Azami no 1 shu], *Artemisia montana* (NAKAI) PAMP. [Oo-yomogi], *Petasites japonicus* (SIEB. et ZUCC.) MAXIM. [Fuki], *Aster glehni* FR. SCHM. var. *hondoensis* KITAM. [Gomana], *Eupatrium chinense* L. subsp. *sachalinense* (FR. SCHM.) KITAM. [Yotsuba-hiyodori], *Solidago virgaurea* L. subsp. *asiatica* KITAM. [Aki-no-kirinsou] and made sure the existence of feeding traces that we can confirm it by the existence of remarkable dung on the leaves. Regrettably he was not able to recognize any obvious sign in every case, though, as already mentioned, only *Petasites japonicus* of these six plants was well fed by two adults in K. S.'s experiment. Based on these facts we assumed that the true host plants of this new

Table 1. The record of rearing for *Chrysolina* (*Er.*) *kirigaminensis* under laboratory condition of 16L–8D at 20℃ in 2008. Abbreviations — No.: Individual number; E: egg; LI–LIV: 1st to 4th instar larvae; P: pupa; A: adult; CD: cumulative days from egg to adult; D: death. Date was shown as day/month.

No.	Sex	E	LI	LII	LIII	LIV	P	A	CD	D
2	♀	4/8	19/8	27/8	1/9	10/9	28/9	10/10	67	
3	♀	4/8	19/8	26/8	30/8	6/9	28/9	9/10	66	1/12
4	♂	4/8	19/8	27/8	1/9	8/9	25/9	6/10	63	
5	♀	4/8	19/8	27/8	1/9	10/9	28/9	8/10	65	28/11
7	♂	4/8	19/8	26/8	30/8	9/9	26/9	6/10	63	
8	♂	4/8	19/8	27/8	1/9	10/9	29/9	10/10	67	
11	♂	4/8	19/8	28/8	1/9	7/9	29/9	10/10	67	
12	♂	4/8	19/8	28/8	1/9	8/9	27/9	7/10	64	
13	♀	4/8	19/8	27/8	3/9	9/9	29/9	11/10	68	
15	♂	4/8	19/8	23/8	30/8	6/9	22/9	6/10	63	

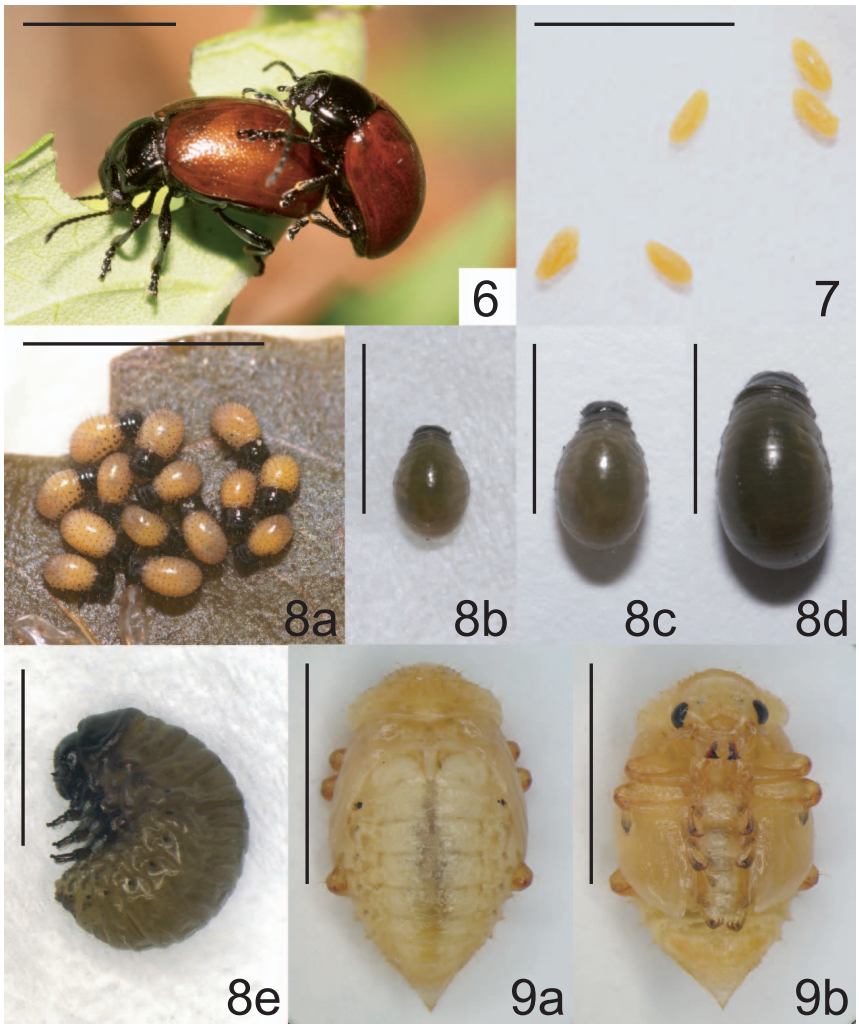
species belong to the Labiatae. However, it should be noticed that some mono- and/or oligophagous chrysomelid species occasionally show such an apparently 'accidental' or 'abnormal' host preference (SUZUKI, unpublished). The observation by K. S. was conducted for the four individuals that were first rediscovered on October 15 and 17, 2007. Those beetles were new adults just after emergence without doubt and they must have accumulated adequate nourishment before passing the winter. However, most leaves of their true host plants (*Lycopus* spp.) of the Labiatae were already fallen. *Petasites japonicus* must have been utilized as an alternative diet plant before entering winter diapause for the newly emerged adult beetles. Recently, NISHIHARA (2010) reported that many individuals of *Chrysolina* (*Euchrysolina*) *virgata* (MOTSCHULSKY, 1860) fed on the leaves of both *Lycopus uniflorus* and *Artemisia* sp. at Kita-Ibaraki-shi, Ibaraki Pref., Northeast Honshu, though their true host plants are of the Labiatae.

Notes on the life cycle. We reared two pairs of adult beetles under the laboratory condition, ascertained that this new species is univoltine and have roughly comprehended its life cycle as compiled below.

I. In the case of the pair A (collected at Ike-no-kurumi on July 27, 2008, and reared in the laboratory by K. S.). During the first 10 days of August, the female laid 18 eggs. Since then intermittent copulation was observed several times until October 26. Second oviposition was observed on September 19. K. S. failed to continue rearing them. The male died on November 27 and the female on December 14.

II. In the case of the pair B (collected at Ike-no-kurumi on August 3, 2008, and reared under the laboratory condition of 16L–8D at 20℃ by S. S.). On August 4 the female laid 20 eggs. Every egg was reared separately with leaves of *Lycopus maackianus* in a plastic case in the laboratory. The eggs hatched out all at once on August 19. The record of rearing in 2008 is compiled in Table 1.

The 1st instar larvae (Fig. 8 a) became the 2nd instar one during August 23 to 28. The 2nd instar larvae (Fig. 8 b) became the 3rd instar one during August 30 to September 3 and the 3rd instar larvae (Fig. 8 c) became the 4th instar one (Fig. 8 d) during September 6 to 10, and then became pupae (Fig. 9) via very short prepupa (Fig. 8 e) stage during September 22 to 29. Since October 1, adults emerged one after another. The egg period is 15 days, the 1st instar larva takes 4–9 (♂: 4–9; ♀: 7–8) days, the 2nd 4–7 days, the 3rd 6–10 (♂: 6–10; ♀: 6–9) days, the 4th 16–22 (♂: 16–22; ♀: 18–22) days, the pupa 10–14 (♂: 10–14; ♀: 10–12) days. The total period from



Figs. 6–9. Biology of *Chrysolina* (*Er.*) *kirigaminensis*. —— 6, Mating pair; 7, eggs; 8, larva (a. 1st instar, b. 2nd instar, c. 3rd instar, d. 4th instar, e. prepupa); 9, pupa (a. dorsal, b. ventral views). Scale bars: 5.0 mm.

egg to adult takes 63–68 (♂: 63–67; ♀: 65–68) days under a laboratory condition of 16L–8D at 20℃.

The oviposition site in the field is unknown but may be above ground parts around the host plants according to aggregation habit of the 1st instar larvae. The tendency that eggs are laid in mass was observed. Eggs are cream white in color. The 1st instar larvae aggregate each other during the first two days and then they disperse. The junior author observed similar behaviors of the 1st instar larvae in *Chrysolina* (*Eu.*) *virgata* (SAITOH, unpublished). The 4th (last) instar larvae pupate as known in other several *Chrysolina* species [*C.* (*Eu.*) *virgata*, *C.* (*Apterosoma*) *angusticollis* species complex, *C.* (*An.*) *aurichalcea* GEBLER]. The 1st instar larvae are yellow in body color and their dorsal surface is conspicuously pubescent. The 2nd to 4th instar larvae are dark reddish brown in body color and their dorsal surface becomes apparently inconspicuous.

The later period of the 4th instar larvae becomes prepupa in which the legs slightly spread and the abdomen becomes somewhat flat. The pupa is cream in color at the beginning and gradually changes black in order of head, mandibles, tarsus, and articulation parts of legs. Two days after that adults emerged. Just after emergence the pronotum first becomes pitchy black in color and then the remaining parts colored.

In leaf-beetles the intrinsic rate of natural increase (or innate capacity for increase) is considerably high in general. Consequently, above results obtained under laboratory condition should be understood as reference data.

要　　約

鈴木邦雄・齋藤　諭：本州産 *Chrysolina* 属（鞘翅目，ハムシ科）の 1 新種の記載．—— 本州中部，長野県霧ヶ峰高原地域の数カ所から得られた *Chrysolina* 属（ハムシ科，ハムシ亜科）の 1 新種を，*C*.（*Erythrochrysa*）*kirigaminensis* の名のもとに記載した．和名は，基準産地名に因んで「キリガミネハムシ」としたい．本種は，ヨーロッパから極東地域にかけて広く分布する *C*.（*Erythrochrysa*）*polita*（Linnaeus, 1758）に非常に類似しており，共通祖先から分化した姉妹種関係にあることはまちがいないものと思われる．筆者らは，ヨーロッパ各地の標本と比較検討したが，本州産の個体は，西ヨーロッパ各地や極東地域産の個体と比較して，前胸背後半部が略平行であることと体色が非常に安定かつ特徴的であり（翅鞘と第 5 腹節が暗赤褐色，その他の部分はほとんど一様に黒色），しかも日本海を隔てて相当に古い時代に隔離されたまま今日に到っている非常に局所的な個体群であると考えられることから，独立種として扱うことが適切であると判断した．なお，イランや極東地域（シベリア，中国北部）より *C*.（*Er*.）*polita adamsi*（Baly, 1879）が，アルメニアから *C*.（*Er*.）*polita ogloblini*（Ter-Minasian, 1950）の 2 亜種が記載されており，原名亜種との区別点は体色や翅鞘表面の微細構造などにあるとされているが，必ずしも明瞭ではなく，日本産の個体はむしろ西ヨーロッパ産の個体に近い特徴を持つ．本種は，筆者らの一人鈴木が，1965 年，霧ヶ峰高原の沢渡（さわたり）付近（標高約 1,500 m）にて，草原の間を通る小径上を歩行中の 1 個体を採集し，霧ヶ峰産のハムシ相に関する報告（鈴木，1965）中でごく短い記載文を添えて *Chrysolina* sp. として報告した種に該当する．鈴木は，2007 年 10 月中旬に，霧ヶ峰高原の強清水（こわしみず）にて，ほとんど草紅葉状態になった草原の周辺でスウィーピングによって偶然 4 個体を新たに採集し得た．筆者らは，以降，数度にわたって同高原を調査し，多数の追加標本を得るとともに，2008 年 7 月には本種がヒメシロネとエゾシロネ（シソ科）を摂食していることを確認し，さらに飼育を試み，交尾・産卵から新成虫を羽化させることにも成功した．野外での観察と飼育結果から，本種は年 1 化で，成虫越冬し，越冬成虫は 7 月上旬頃から活動を開始し，8 月中旬頃まで産卵を続け，新成虫は 10 月上旬頃に出現し，野外でしばらく摂食活動をした後，越冬に入るという生活史を持つものと推定される．卵から成虫までの生育期間は，16L/8D, 20℃の飼育条件下で 63–68 日であった．本種のような，日本産のハムシ類としては比較的大形で，しかも顕著な体色パターンを持つ種が，鈴木の最初の発見以来 43 年間も霧ヶ峰高原地域ばかりでなく近隣諸地域からも知られていなかったことは，本種が遺存種的に，本州中部の山岳地帯にのみ局所的に生息している可能性を示していると推測される．そのような分布を示す種が，ハムシ科にも他にいくつか知られている［たとえば同じハムシ亜科のモンキヨダンハムシ *Paropsides duodecimpustulatus*（Gebler in Mannerheim, 1825）］ので，今後，この地域の詳しい調査がなされることが期待される．

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