

The True Affinity of the Genus *Sasajia* MASUMOTO et AKITA
(Coleoptera, Tenebrionoidea), with Description of
a New *Ocholissa* from the Ryukyu Islands

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Abstract *Sasajia* MASUMOTO et AKITA, 2007, described as a member of the subfamily Colydiidae in the family Zopheridae, is transferred to the family Salpingidae and synonymized with the genus *Ocholissa*. *Sasajia hiroyukii* MASUMOTO et AKITA is changed to *Ocholissa hiroyukii* comb. nov. A problematical species, *Szekessya hypophloeoides* KASZAB, originally described as a member of the family Tenebrionidae, is now known as a member of Salpingidae. Its type specimen is re-examined, and their habitus and male genitalia are shown in this paper. A new species of the genus *Ocholissa*, *O. hiranoi* sp. nov. is described from the Ryukyu Islands, Southwest Japan.

Species of the genus *Ocholissa* of the family Salpingidae possess a rather small, flattened and subparallel-sided body with the tarsal formula 4-4-4. Nine species of the genus have hitherto been known from South Africa, India, Ceylon, Tasmania and Samoa. The type species of the genus, *Ocholissa laeta* PASCOE, 1863, was collected from the "Amazons Valley".

The first record of a Japanese species of this genus was made by SATÔ (1982) as "*Ocholissa* sp." from Minami-Iwojima (= Minamiiwô-tô) Island. It was regarded as a member of the family Colydiidae. Later, MASUMOTO and AKITA (2007) erected the genus *Sasajia* for a small unknown species from the Ogasawara Islands as a member of the subfamily Colydiinae in the family Zopheridae.

Recently, some entomological friends of the first author kindly suggested that *Sasajia* resembles the genus *Ocholissa* PASCOE, 1863, and therefore should belong to the family Salpingidae. Since then, it has been re-examined carefully, and the authors finally concluded that *Sasajia* should be a genus of the family Salpingidae and could not be

separated from the genus *Ocholissa*.

Meanwhile, the genus *Szekessya* was erected by KASZAB (1955) for *S. hypophloeoides* from Samoa Island as a member of the family Tenebrionidae. KULZER (1957) described two species belonging to this genus from Micronesia, the Caroline Islands and the Marshall Islands, respectively. NAKANE (1970) recorded a "*Szekessya*" from the Ogasawara Islands (Hahajima Island). The true systematic position of this genus remained problematical because of unclear status of its components. Finally, it was placed in the subfamily Prostominiinae of the family Salpingidae by LAWRENCE and NEWTON (1995).

On this occasion we also re-examined *Szekessya*, and herewith show its habitus and the shape of male genitalia.

Before going into further details, they would like to express their cordial acknowledgement to Dr. Wolfgang SCHAWALLER, Staatliches Museum für Naturkunde, Stuttgart, Dr. Ottó MERKL, Természettudományi Múzeum, Budapest, Mr. Maxwell BARCLAY, The Natural History Museum, London, for loaning types and materials. Dr. Hermes E. ESCALONA G., FAGRO-Universidad Central de Venezuela, Dr. Eric G. MATTHEWS, South Australian Museum, Mr. Yukihiro HIRANO, Odawara City, Dr. Jun-ichi AOKI, Tokyo, Mr. Satoshi INADA, Urasoe City, and Mr. Haruki KARUBE, Kanagawa Prefectural Museum, for offering precious materials for this study.

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1. Systematic Position of the Genera *Sasajia* and *Szekessya*

Genus *Ocholissa* PASCOE, 1863

Ocholissa PASCOE, 1863, J. ent., 2: 85. Type species: *O. laeta* PASCOE (as a genus of Colydiidae).

Sasajia MASUMOTO et AKITA, 2007, Ent. Rev. Japan, Osaka, 62: 18. Type species: *S. hiroyukii* MASUMOTO et AKITA (as a genus of Colydiinae in Zopheridae). [*Syn. nov.*]

Original description of the genus *Ocholissa*. "Caput retractum, subtriangulare, antice rotundatum, oculis prominulis. Antennæ 11-articulatæ, basi tectæ, clava triarticulata. Palpi crassi, breves, labiales obtusi, maxillares oblique truncati. Prothorax quadratus, lævis. Elytra parallela, lævia. Tibiæ subtrigonnatæ, breviter calcaratæ. Tarsi graciles, articulis tribus primis brevibus. Corpus elongato-ovatum, subdepressum.

Nearly allied to *Aulonium*, from which it differs in the smooth prothorax, slender, simple tibiæ, and shorter tarsi. Other species of this genus have been detected by Mr. WALLACE in New Guinea, and are found also in Batchian, Mysol, Sula &c."

Notes. PASCOE did not mention about the tarsal fomura 4-4-4 which is one of the important characteristics. Structures of ventral sides are also very important for identification of the genus, subfamily and family.

Genus *Sasajia* MASUMOTO et AKITA, 2007

Sasajia MASUMOTO et AKITA, 2007, Ent. Rev. Japan, Osaka, **62**: 18. Type species: *S. hiroyukii* MASUMOTO et AKITA (as a genus of Colydiinae in Zopheridae).

The genus *Sasajia* was erected by MASUMOTO and AKITA (2007) for *S. hiroyukii* in the subfamily Colydiinae of the family Zopheridae. It is characterized as follows:

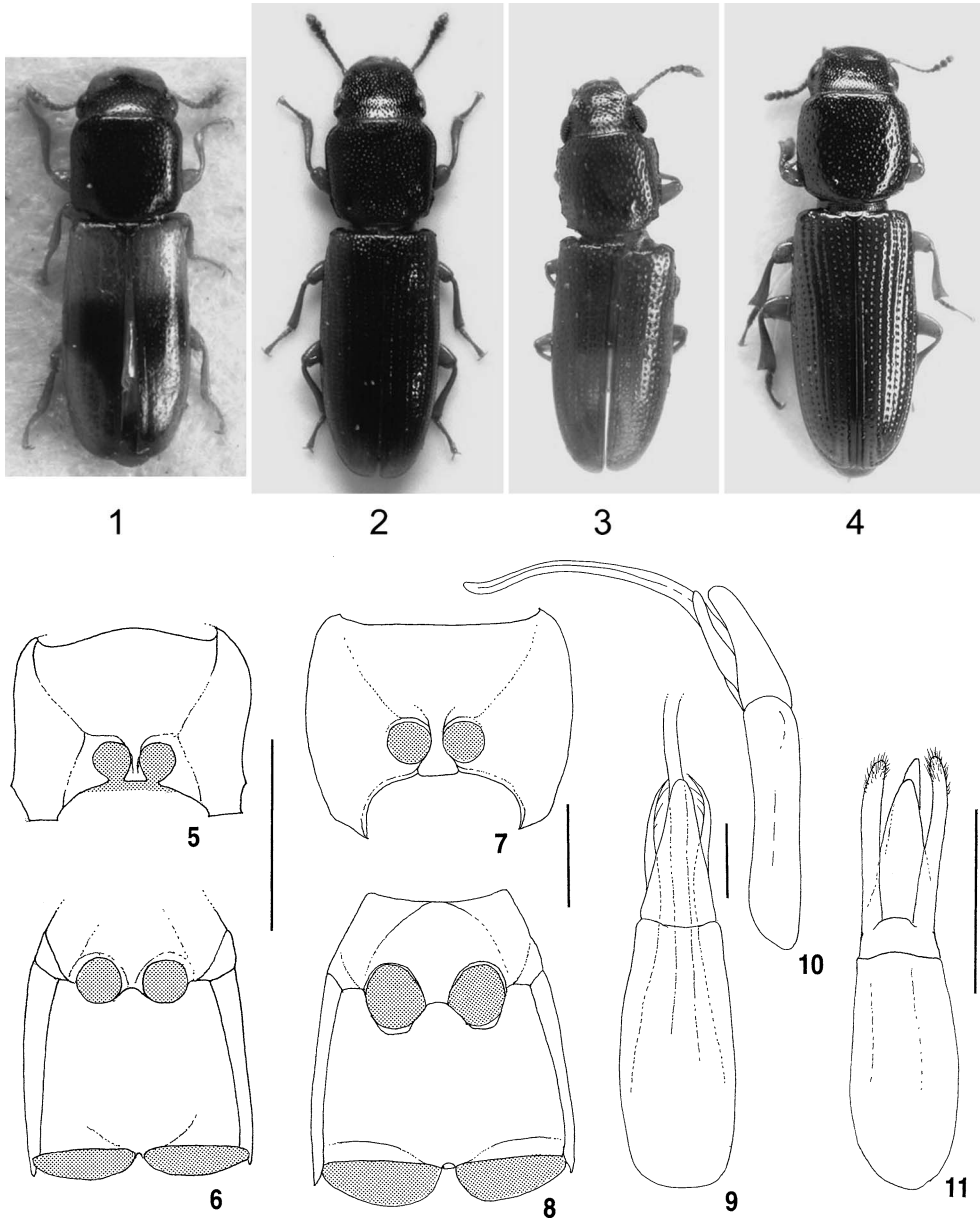
“Body rather elongate, subparallel-sided, only weakly convex dorsad, not serrate along outer margins; each surface almost glabrous, without granules or humps. Head trapezoidal, gently inclined apicad, with rather long clypeus. Antennae 11-segmented, with the apical three segments moderately clavate. Eyes rather elongate. Pronotum nearly quadrate, weakly convex, flattened in major central part, impressed at base on both sides, with all margins finely bordered and rimmed, front angles rounded, hind angles bisinuous and angulate at the corners. Scutellum medium-sized, semicircular. Elytra punctato-striate, gently convex, flattened in major interior parts; lateral margins rather noticeably bordered and rimmed, particularly so in basal parts. Pygidium visible from above.

Terminal segment of maxillary palpus somewhat hatchet-shaped; mentum narrowed; gula longitudinally subelliptical, finely bordered. Prosternum rather wide, obtrapezoidal, gently convex medially, with area between procoxae weakly raised, prosternal process feebly produced posteriad, weakly depressed and truncate at apex; mesosternum somewhat elongated obpentagonal, weakly convex medially, rather closely punctate; distance between mesocoxae about half the diameter of a mesocoxa; metasternum subquadrate, gently convex medially, with a longitudinal depression along median line; metacoxae not touched but rather close to each other. Abdominal sternites becoming shorter apicad.

Legs medium-sized in the related species; femora widened in middle; tibiae gently widened and curved outwards, protibia with an apical spur on exterior side; mesotibia with an apical spur at interior side; metatibia with an apical spur on interior side; tarsi subcylindrical, of the formula 4–4–4, not specially modified, without tufts on ventral sides; claws falciform.”

Notes. The first two abdominal ventrites of *Sasajia* are connate. The postcoxal extensions of the pronotum (hypomeron) do not meet with the prosternal process. In salpingids all the ventrites are movable, or just the first two are connate, and the procoxal cavities appear to be externally open. The characters mentioned above are in common with *Ocholissa*. This genus is one of a few salpingids which has a 4–4–4 formula.

As compared with *O. læta* PASCOE (Figs. 1 & 5–6), the type species of *Ocholissa*, that of *Sasajia* possesses more elongate body, with each surface more strongly punctate, lateral margins of the pronotum hooked and weakly sinuate among hooks, and the elytra more noticeably striated. Except for these, the present authors are unable to find any distinct peculiarities. Thus, *Sasajia* should be regarded as a junior synonym of *Ocholissa*.



Figs. 1-11. *Ocholissa* spp. and *Szekessya hypophloeoides* KASZAB. — 1 & 5-6, *O. laeta* PASCOE, type; 2, *O. hiroyukii* (MASUMOTO et AKITA), holotype, ♂; 3 & 11, *O. hiranoi* sp. nov., holotype, ♂; 4 & 7-10, *Szekessya hypophloeoides* KASZAB, paratype, ♂; 1-4, Habitus; 5 & 7, prothoraces; 6 & 8, meso- and metathoraces; 9 & 11, male genitalia (dorsal view); 10, same (lateral view). Scales: 0.5 mm for 5-8; 0.1 mm for 9-11.

In European Museums, e.g., Staatliches Museum für Naturkunde, Stuttgart, Természettudományi Múzeum, Budapest, there are other specimens from tropical Asia to Oceania more closely allied to “*Sasajia hiroyukii*” but apparently belonging to undescribed species.

Genus *Szekessya* KASZAB, 1955

Szekessya KASZAB, 1955, Proc. Hawai. ent. Soc., **15**: 661. Type species: *S. hypophloeoides* KASZAB.

Szekessya has been another questionable genus. It is seemingly similar to the genus *Hypophloeus* FABRICIUS, 1790 = *Corticeus* PILLER et MITTERPACHER, 1783, of the family Tenebrionidae, but some structures of the body are quite different. WATT (1974, p. 389) supposed that *Szekessya* belongs to the family “Prostomidae?”. LAWRENCE (1977) placed *Ocholissa* and *Szekessya* in the subfamily of Trogocryptinae of the family Othnidae. Later, LAWRENCE and NEWTON (1995) placed them in the family Salpingidae.

On this occasion, we re-examined the type species of *Szekessya* and confirmed that the genus also belongs to the family Salpingidae, subfamily Prostominiinae. The present authors are going to show the photographs of the habitus and drawings of the pro- and mesosterna and the male genitalia of *S. hypophloeoides* KASZAB in the present paper (Figs. 4 & 7–10).

Ocholissa hiroyukii (MASUMOTO et AKITA, 2007), comb. nov.

[Japanese name: Ogasawara-hoso-chibi-kikawa-mushi]

(Fig. 2)

Sasajia hiroyukii MASUMOTO et AKITA, 2007, Ent. Rev. Japan, Osaka, **62**: 19. (figs. 1–10).

Distribution. Ogasawara Islands: Haha-jima and Chichi-jima Isls. (Bonin Islands), Minamiiwô-tô Is. (Volcano Islands) [New record].

Specimens examined. Minamiiwô-tô Is.: 4 exs., “Col to Summit, 24. VI. 2007, H. KARUBE leg.”; 2 exs., “Col to 750 m, 24. VI. 2007, H. KARUBE leg.”; 3 exs., “near Summit, 24–25. VI. 2007, H. KARUBE leg.”; 1 ex., same data, Yasuhiko ITÔ leg.

2. Description of a New *Ocholissa* Species from Japan

Ocholissa hiranoi sp. nov.

[Japanese name: Okinawa-hoso-chibi-kikawa-mushi]

(Figs. 3 & 11)

Reddish brown to dark reddish brown, with eyes, lateral margins of head, pron-

tum, and elytra blackish, antennae and legs lighter in color, hairs on antennae and tarsi pale; dorsal surface moderately shining, ventral surface dully so. Body subparallel-sided, only weakly convex dorsad.

M a l e. Head longitudinally subelliptical and gently inclined apicad, rather closely punctate, outer margins of genae and clypeus very finely rimmed; clypeus feebly convex in middle, with apex subtruncate, fronto-clypeal border semicircular and finely sulcate, intersectional areas of frons, genae and clypeus weakly depressed; genae hardly defined from frons, with outer margins weakly raised and feebly produced laterad; frons gently convex, weakly depressed in postero-interior parts of eyes, with diameter about four times the width of transverse diameter of an eye. Eyes elongated subovate, weakly produced laterad. Antennae clavate, reaching the middle of pronotum, with three apical segments widened, the 10th widest, the terminal one the largest and subovate, ratio of the length of each segment from base to apex: 0.06, 0.05, 0.02, 0.01, 0.01, 0.01, 0.01, 0.01, 0.04, 0.03, 0.07.

Pronotum subquadrate, slightly wider than long, weakly narrowed basad; apex weakly produced anteriorly, very feebly emarginate in middle, noticeably sinuous and finely in lateral parts; base weakly produced, entirely rimmed; sides rather strongly inclined laterad in anterior part, gently so in medial and posterior parts, with lateral margins finely bordered and rimmed, finely hooked at apical 1/6, at the middle, at basal 2/5 and before hind angles, and weakly sinuate between respective hooks; front angles subrectangular, hind angles finely pointed; disc gently convex, broadly flattened in middle, rather closely punctate, the punctures longitudinally ovate, with a pair of impressions near base. Scutellum transversely semicircular, very feebly raised posteriorly, sparsely scattered with small punctures.

Elytra twice as long as wide, 1.2 times wider and 2.3 times longer than pronotum, feebly produced laterad, widest at the middle; dorsum weakly convex, flattened in middle; disc with rows of small punctures, which are rather closely set and very slightly grooved in posterior parts; intervals weakly convex, odd intervals each with a row of smaller punctures, which are irregularly set; humeri weakly swollen, finely toothed at each outer corner, with outer margins grooved and finely rimmed.

Prosternum wide, rather closely, coarsely punctate; procoxal cavities margined in intero-anterior parts, opened posteriorly; prosternal process obtusely truncate; mesosternum rather wide and hardly depressed, more coarsely and closely punctate than prosternum; mesocoxal cavities rather rhombic, approximate with each other (not connected); metasternum wide and rather closely punctate, the punctures in medial part small and sparse, with a shallow medial depression in posterior half; metacoxae transverse. Abdomen closely punctate, the punctures rather longitudinally ovate; apex of anal segment rounded; pygidium rather large, subcordate, feebly convex in middle.

Tibiae feebly curved and weakly widened apicad; ratios of the lengths of pro-, meso- and metatarsal segments from base to apex: 0.05, 0.04, 0.03, 0.11; 0.05, 0.04, 0.03, 0.12; 0.04, 0.03, 0.03, 0.15.

Male genitalia as shown in Fig. 11.

Compared with male, pronotum in female not noticeably narrowed basad.

Body length: 2.2–2.9 mm.

Holotype: ♂, “JAPAN; Ryukyus / Okinawa-jima Is. / Okinawa-shi / Kurashiki, 15. V. 1998 / Satoshi INADA leg.” // “K. AKITA / Collection / KAC 35822”. (National Museum of Nature and Science, Tokyo). Paratypes: 1 ♀, “Chinufuku-Rindô, Kunigami-son, Okinawa Pref., 20. Oct. 2000, Y. HIRANO leg.”; 1 ♀, “Taiho Ôgimi-son, Okinawa Pref., 3. Oct. 2000, Y. HIRANO leg.”; 1 ♀, “Ada, Kunigami-son, Okinawa-jima, 27-I-2009, J. AOKI leg.”; 1 ♂, “JAPAN; Ryukyus, Okinawa-jima Is., Kunigami-son, Yona~Terukubiyama, 22. V. 2008, Jun-ichi AOKI leg.”

Distribution. Ryukyu Islands: Okinawa-jima Is.

Notes. This new species resembles *Ocholissa hiroyukii* (MASUMOTO et AKITA, 2007), but can be distinguished from the latter by the body shorter and lighter in color, with the head and pronotum less closely punctate, the antennae slenderer, eyes larger, the number of hooks on the lateral margins of pronotum larger, and the elytra not punctato-striate but with rows of sparser punctures.

The specific name is given after Mr. Y. HIRANO, who collected the paratypes and also gave the authors invaluable suggestion for this study.

要 約

益本仁雄・秋田勝己: *Sasajia* の分類学的位置づけ, および沖縄産 *Ocholissa* 属の1新種 (コウチュウ目ゴミムシダマシ上科). —— 筆者らは, 小笠原諸島産の不明なゴミムシダマシ上科の甲虫を, 2007年に *Sasajia hiroyukii* gen. et sp. nov. ササジホソカタムシとして記載し, コブゴミムシダマシ科 Zopheridae ホソカタムシ亜科 Colydiinae に含めた. その後, 数人の研究者から, 当該種はチビキカワムシ科 Salpingidae に属するのではないか, またとくに *Ocholissa* 属に近い種であろうとの指摘を受けた. そこで, ロンドン自然史博物館より *Ocholissa* 属の基準種標本を, また, ヨーロッパ各地の博物館より近似種の標本を借り出して検討した結果, *Sasajia* と *Ocholissa* とを区別できる点はわずかであることが明らかになった. 小論では前者を後者の新参シノニムとし, *Sasajia hiroyukii* MASUMOTO et AKITA を *Ocholissa hiroyukii* (MASUMOTO et AKITA), comb. nov. と組み変えた. それにともない和名をオガサワラホソチビキカワムシと改称する. なお, *Ocholissa* はチビキカワムシ科の Prostominiinae に含まれる. また, 火山列島南硫黄島から新たに記録した. さらに沖縄島でも別種が採集されたので, *Ocholissa hiranoi* sp. nov. オキナワホソチビキカワムシとして記載した.

なお, ゴミムシダマシ科のものとして記載された *Szekessya* 属は, 長いあいだ所属が不明であったが, 1995年 J. F. LAWRENCE および A. F. NEWTON, JR. によって, チビキカワムシ科の Prostominiinae のものとされた. ここには本属の基準種 *S. hypophloeoides* KASZAB の副基準標本♂の写真および特異な形状の交尾器の図を掲載しておく.

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