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Notes on the Genus *Asisia* (Coleoptera, Chrysomelidae, Lamprosomatinae), with Description of a New Species from West Malaysia

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Abstract *Asisia kurosai* n. sp., feeding on leaves of Araliaceae tree, is described from West Malaysia. This is the first record of the subfamily Lamprosomatinae from the Malay Peninsula. *Oomorphoides chujoi* Takizawa and *O. sakaii* Takizawa are transferred to the genus *Asisia*. A diagnosis and key to eight known species of *Asisia* Bezděk, Löbl et Konstantinov, 2010 are given.
Keywords: Taxonomy, new combination, leaf beetles, Southeast Asia.

Introduction

A small oriental genus *Guggenheimia* Monros, 1956 had been represented by *G. sumatrana* Monros, *G. caerulea* (Jacoby) and *G. nigrita* (Jacoby) from Sumatra, *G. assamensis* (Jacoby) from northeastern India, and *G. vietnamica* Medvedev from Vietnam. Recently it was recognized as a primary homonym of *Guggenheimia* Paula Couto, 1952 (Mammalia: Marsupialia), and was replaced with a new name *Asisia* by Bezděk *et al*. (2010). So far the genus has, however, been unknown from the Malay Peninsula. One new species, *A. kurosai*, n. sp., is described here to fill this vacant area for the genus. Also *Oomorphoides chujoi* Takizawa and *O. sakaii* Takizawa from Nepal and northeastern India are transferred to the genus *Asisia*.

Abbreviations for collections are: IBTP: Institute for Tropical Biology & Conservation, Universiti Malaysia Sabah, Kota Kinabalu; MCZ: Museum for Comparative Zoology, Harvard University, Cambridge; NSMT: National Museum of Nature and Science, Tsukuba.

Diagnosis and Description

Genus ***Asisia*** Bezděk, Löbl et Konstantinov, 2010

Asisia Bezděk *et al*., 2010: 80 (new name for *Guggenheimia* Monros 1956, nec. Paula Couto, 1952 (Manmalia: Marsupialia)).
Guggenheimia Monros, 1956: 52 (type species: *Guggenheimia sumatrana* Monros, 1956).

Type species: *Guggenheimia sumatrana* Monros, 1956.

Body small and oval; color dark brown to black, rarely metallic. Head with a deep sulcus along internal margin of eyes; eyes deeply and angularly emarginate on each inner margin; antennae longer than width of prosternum between coxae, with 8th segment distinctly narrower than dilated 7th or 9th. Elytra finely, but more or less punctate in longitudinal rows. Claws simple.

Remarks. This genus is originally characterized by its simple claws and eyes with rather acute emargination on their inner margin (Monros, 1956). This emargination is, however, broad and arcuate in some species. Thus the definition of the genus needs to be reviewed. It may be characterized also by having the stridulatory files on 5th and 6th abdominal sternites. There are four genera of the tribe Lamprosomatini in Asia. The genera *Asisia* and *Oomorphus* Curtis, 1831 are characterized by the

simple claws in contrast to *Oomorphoides* MONROS, 1956 with the appendiculate claws and to *Scrophomorphus* MEDVEDEV, 1968 with the bifid claws. The genus *Asisia* is distinguishable from the genus *Oomorphus* by a short and deep sulcus near the inner margin of eyes.

As a result of the present study, this genus is composed of eight species, *viz*. three species from Sumatra, each one species from the Malay Peninsula and Vietnam, and three species from northeastern India and Nepal. These eight species can be distinguished from each other by the key provided.

CHAMORRO and KONSTANTINOV (2011) gave some phylogenetic analysis on the tribes and genera of Lamprosomatinae. In their analysis, tribe Lamprosomatini including *Asisia* seems monophyletic. The genus *Asisia* itself shows relation with *Oomorphus*.

Asisia assamensis (JACOBY, 1908)

(Fig. 1 a)

Lamprosoma assamensis JACOBY, 1908: 281 (Assam).
Oomorphoides assamensis: MONROS, 1956: 55.
Guggenheimia assamensis: MEDVEDEV, 1968: 556; MEDVEDEV & SPRECHER, 1999: 285.
Asisia assamensis: BEZDĚK *et al*., 2010: 563.

Diagnosis. Body short oval, 2.7 mm in length, 2.0 mm in width; blackish with a slight bluish tinge. Head impunctate, gently convex, gradually lowered from vertex to clypeus, with a deep sulcus near inner margin of eyes; eyes each with a distinct arcuate emargination on middle of inner margin; distance between eyes almost as wide as longitudinal length of eye; clypeus weakly concave in arched manner on anterior margin; labrum rather flat, without median carina. Pronotum twice as wide as long, rather densely covered with small punctures. Elytra each twice as long as wide, with about 20 sub-regular rows of punctures; punctures distinctly smaller than width of interspaces between them. Prosternum 1.2 times as wide as long, with the narrowest width at middle 0.4 times as wide as the basal width. Legs with simple claws.

Material examined. 1 ex., Manjitar, Darjeeling, India, 7.V.1981, M. ITO leg. (*Oomorphoides* sp. in TAKIZAWA, 1985); 1 ex., Karnal, Haryana, India, 28.IX.1971, I. HATTORI leg. (*Oomorphoides* sp. 1 in TAKIZAWA, 1983).

Remarks. There are marked differences in the punctuation of elytra between two examined specimens. The specimen from Assam agreed well with JACOBY's original description, and has the diameter of punctures on the elytra distinctly smaller than their interspaces. While the Haryana specimen has punctures distinctly larger than their interspaces on the latero-anterior portion of elytra. This difference may suggest that the latter is a different species. Since I have examined only two specimens, however, I here tentatively treat them as conspecific.

Host plants. Unknown.

Distribution. India (Assam; Haryana?).

Asisia caerulea (JACOBY, 1899)

Oomorphus caeruleus JACOBY, 1899: 266 (Sumatra).
Lamprosoma binominatum CLAVAREAU, 1913: 224 (new name for *Oomorphus caeruleus* JACOBY, 1899).
Guggenheimia caerulea: MONROS, 1956: 54.

Diagnosis. Body strongly narrowed posteriorly, 4.0 mm in length, black except dark blue dorsum; clypeus separated from the face by an obsolete semicircular depression; elytra with punctures arranged in rather closely approached, semiregular rows; claws simple (based on JACOBY's original description).

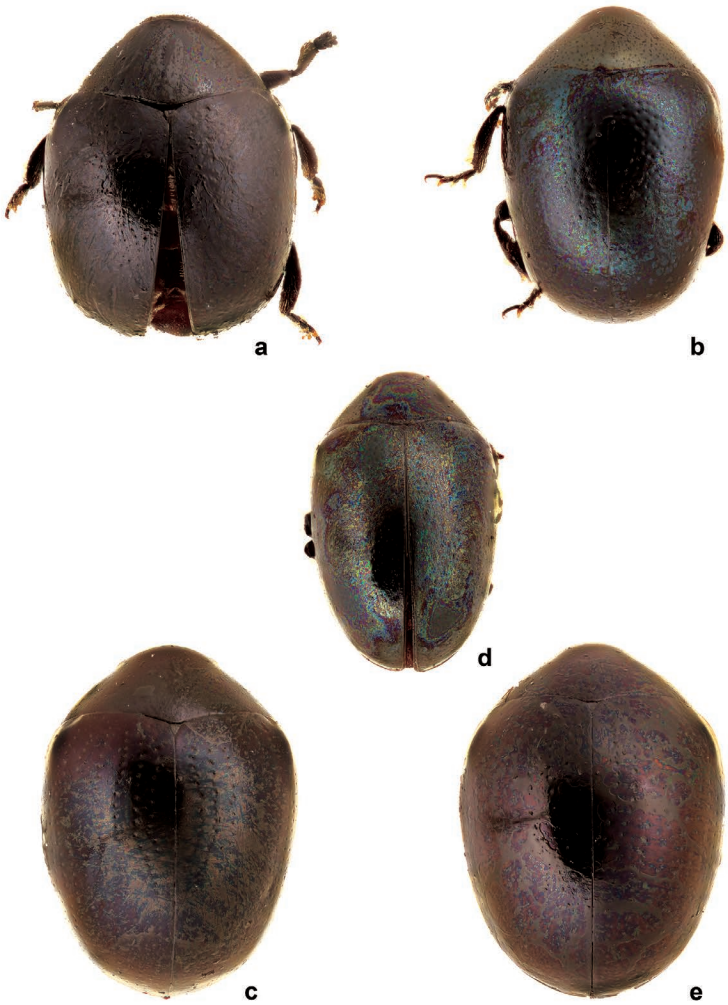

Fig. 1. Habitus of *Asisia* species. —— a, *Asisia assamensis* (JACOBY), from Manjitar, Assam; b, *A. chujoi* (TAKIZAWA), n. comb., from Melanche, C. Nepal; c, *A. kurosai* n. sp. (holotype); d, *A. sakaii* (TAKIZAWA), n. comb., from Lamdhra, C. Nepal; e, *A. sumatrana* (MONROS), from Bandar Baru, northern Sumatra.

Remarks. JACOBY's original description is somewhat vague to decide its generic placement exactly (MONROS, 1956). Since I have seen no specimen of this species, I here followed MONROS's treatise. This species is distinguished by its distinctly larger body size among known congeners.

Host plants. Unknown.

Distribution. Indonesia (Sumatra).

Asisia chujoi (TAKIZAWA, 1987), n. comb.

(Fig. 1 b)

Oomorphoides chujoi TAKIZAWA, 1987: 48 (northeastern India, western Sikkim; NSMT).

Diagnosis. Body slender and small, 2.1–2.4 mm in length, 1.5–1.6 mm in width; black with a

cupreous luster; elytra dark metallic blue. Head finely punctate, with a longitudinal sulcus near inner margin of eyes shallower; eyes each with a distinct arcuate emargination on middle of inner margin; vertex with a short and obscure median longitudinal line; frons separated from clypeus by shallow arcuate impression; labrum flat without median carina. Pronotum transverse, 2.2 times as wide as long, straightly narrowed anteriorly on lateral margins; disc densely covered with small punctures, with interspaces finely and sparsely punctate. Elytra each 2.4 times as long as wide, covered with distinct punctures in some 15 irregular longitudinal rows which are slightly smaller than interspaces between them. Prosternum as long as wide, with the narrowest width at middle 0.3 times as wide as the basal width.

Material examined. 1 ex. (paratype), Lal Tibba, Mussoorie, India, 2,100–2,200 m, 14.XI.1978, Jap.-Ind. Co. Tr.; 1 ex., Melanche, 2,100m, nr. Ghandrung, Central Nepal, 17.X.1981, M. SAKAI leg.; 4 exs., Godavari, Kathmandu V., Nepal, 17.X.1987, H. TAKIZAWA leg.

Remarks. This species was originally described as a member of the genus *Oomorphoides*, which is characterized by its appendiculate claws. Since this species has the simple claws, it should be transferred to *Asisia*. The female specimens are seemingly wider than the males. Besides, the punctuation on the dorsum is variable from weak to distinct ones. The length/width ratio of pronotum and elytra were erroneously given in the original description as 1 4/5 and 2 1/5, respectively.

Host plants. Unknown.

Distribution. Nepal and northeastern India.

Asisia kurosai n. sp.

(Figs. 1 c & 2 b)

M a l e. Body ovate, narrowed to apex, 2.4–2.6 mm in length, 1.6–1.8 mm in width; shining black; antennae with two basal segments partially brownish. Vertex gently convex, with fine and sparse punctures, with a shallow impression medially, with a deep sulcus near inner margin of eyes; frons delimited above with a weak triangular impression, weakly raised transversely between antennal sockets, thence declivitous anteriorly; clypeus weakly emarginate on anterior margin; labrum transverse, weakly convex without median carina, weakly rounded on anterior margin; eyes with a deep and round emargination at middle on inner margin, with the distance between eyes distinctly wider than its longitudinal length; antennae stout and shining with sparse long hairs; 1st and 2nd segments robust, 1st distinctly longer than 3rd; 3rd to 5th rather slender, in equal length; 6th shorter than 5th; 7th roundly expanded, distinctly wider than 6th or 8th; 8th wider than 6th; 9th roundly expanded, as long as wide; 10th slightly narrower than 9th; 11th long ovate, almost twice as long as 10th, weakly narrowed to apex. Pronotum transverse, 2.3 times as wide as long, narrowed from base to anterior angles, gently emarginate on anterior margin, weakly bi-sinuate on basal margin; disc shining, rather densely covered with small, shallow punctures; interspaces with fine punctures. Elytra widest at basal 1/3, thence straightly narrowed to base, each 2.2 times as long as wide; disc with eleven regular rows of weak, but distinct punctures; interstices with an obscure row of fine punctures. Prosternum 1.2 times as long as wide, strongly constricted medially, with the narrowest width at middle 0.4 times as wide as the basal width. First abdominal sternite with a median lobe densely punctate; fifth sternite distinctly declivitous medially along apex, densely covered with seta-bearing punctures. Legs with simple claws. Aedeagus gradually widened to apex, abruptly widened at subapical portion, and roundly narrowed to sub-triangular apex, with a row of distinct long hairs along lateral margin, strongly curved down ventrally at expanded portion, with distinct sparse hairs ventrally; median orifice covered with large sclerotized plate, narrowly opened in a crescent form; the plate with shallow longitudi-

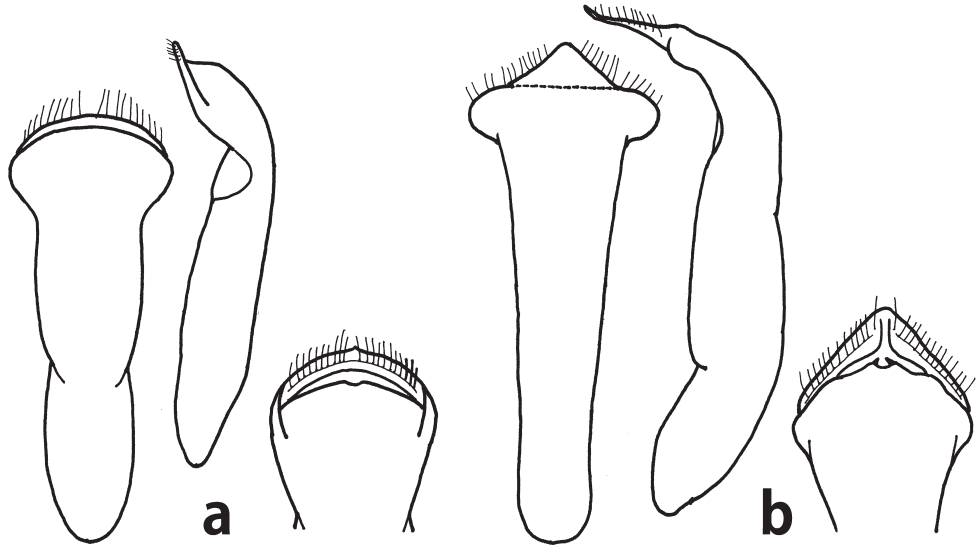

Fig. 2. Aedeagus (left: dorsal view; middle: lateral view; right: apical portion). —— a, *Asisia sumatrana* (Monros), from Urung Tama, northern Sumatra; b, *A. kurosai* n. sp., from Gn. Mentegi, Cameron Highlands, Pahang.

nal impression medially at apex.

Material examined. Holotype, male, Gn Brembun, Tanah Rata, Cameron Highlands, Pahang, Malaysia, 17.III.2019, H. Takizawa leg. (IBTP). Paratypes: 2 exs., Gn. Mentegi, Tanah Rata, Cameron Highlands, Pahang, Malaysia, 14.III.2019, H. Takizawa leg.; 5 exs., same data as the holotype; 4 exs., ditto, 27.VIII.2016, H. Takizawa leg.; 1 ex., ditto, 29.VIII.2016, H. Takizawa leg.; 1 ex., ditto, 13.III.1988, K. Matsumoto leg.; 1 ex., Robinson Waterfall, Tanah Rata, Cameron Highlands, 12.III.2018, H. Takizawa leg.; 5 exs., Tanah Rata, Cameron Highlands, 8.XII.2013, H. Takizawa leg.; 1 ex., Gn. Jasar, Tanah Rata, Cameron Highlands, 9.XII.2013, H. Takizawa leg.; 1 ex., ditto, 4–9. III.2015, A. Abe leg.; 1 ex., ditto, 13.III.2018, H. Takizawa leg.; 2 exs., ditto, 26.VIII.2016, H. Takizawa leg.; 1 ex., Lojing, tr. 1, Gua Musang, Kelantan, Malaysia, 10.VI.2008, H. Takizawa leg.; 1 ex., Sungai Sengam nr. Ringlet, Perak, Pen. Malaysia, 12–13.IV.1998, H. Yoshitake leg.

Remarks. This new species is closely similar to *A. sumatrana* (Monros) from Sumatra in the body shape and coloration, but is clearly distinguished from the latter mainly by the flat labrum without the median longitudinal carina, the eyes with a distinct round emargination at the middle, and by the aedeagus broadly triangular at the apex.

This new species was found feeding on two different tree species of Araliaceae mainly at 1,000–1,300 m in altitude in Cameron Highlands (Fig. 3). Since they were collected in March, April, June, August, and December so far, the adult beetles are seemingly active in the field all year round.

This new species is dedicated to the late Dr. Kazuyoshi Kurosa, an excellent taxonomist on insect parasitizing acari. He also studied the larvae of Chrysomelidae at the beginning of his research career, and kept keen interest on leaf beetles for his life.

Host plants. An arboreal tree of Araliaceae at Lojing; A young tree of Araliaceae in Cameron Highlands (Fig. 3 b).

Distribution. West Malayisia (Pahang, Perak, and Kelantan).

Asisia nigrita (JACOBY, 1896)

Oomorphus nigritum JACOBY, 1896: 387 (Sumatra).
Guggenheimia nigrita: MONROS, 1960: 7.

Diagnosis. Body 2.1 mm in length; black, elytra with slight bluish tint; head impunctate, with a deep short sulcus near inner margin of eyes; eyes with narrow emargination at middle of inner margin; pronotum transverse, widened at the middle, much narrowed to apex, with a narrow transverse groove along anterior margin; disc extremely finely punctured; elytra more strongly punctured in closely approached 15 or 16 longitudinal rows (based on JACOBY's original description).

Remarks. No material is available for study. After JACOBY's original description, its pronotum is widened at the middle, and has a narrow transverse groove near the anterior margin. These seem characteristics of this species.

Host plants. Unknown.

Distribution. Sumatra.

Asisia sakaii (TAKIZAWA, 1989), n. comb.

(Fig. 1 d)

Oomorphoides sakaii TAKIZAWA, 1989: 329 (northeastern India; NSMT).

Diagnosis. Body small oval and slender, 2.0–2.4 mm in length, 1.3–1.5 mm in width; black with cupreous luster; elytra with strong cupreous or sometimes dark bluish luster. Head strongly convex and shining, with a deep fovea interiorly to eyes; vertex distinctly separated from frons, with longitudinal median impression; eyes each with small and roundish emargination at middle of inner margin. Pronotum densely covered with shallow punctures. Elytra each 2.6 times as long as wide, densely covered with distinct punctures, which have a tendency to arrange in about 20 longitudinal rows; interspaces finely reticulate. Prosternum longer than wide, with the narrowest width at middle 0.4 times as wide as the basal width. Legs with simple claws.

Material examined. 1 ex. (paratype), Lamudiura, 2,800 m, Singallia Dara, Darjeering Dist., India, 7.X.1983, M. TOMOKUNI leg.

Remarks. On account of simple tarsal claws, this species should be referred to the present genus. Its small oval and slender body distinguishes this from most congeners. This is very close to *A. chujoi*, but is more slender than the latter with the body 1.6 times as long as wide.

Host plants. Unknown.

Distribution. Northeastern India.

Asisia sumatrana (MONROS, 1956)

(Figs. 1 e & 2 a)

Guggenheimia sumatrana MONROS, 1956: 53 (Sumatra).

Diagnosis. Body short oval, shining black, 2.4–2.8 mm in length, 1.6–2.2 mm in width. Head shining, covered with fine punctures, gently convex with a distinct transverse impression between eyes, with a deep longitudinal sulcus near inner margin of eyes; frons distinctly raised below frontal impression; labrum transversely trapezoid, with a median longitudinal carina, which is produced over anterior margin of labrum; eyes widely separated by 1.2 times its longitudinal length, each with a deep triangular emargination at middle of inner margin. Pronotum 1.8 times as wide as long, evenly covered with small, shallow punctures; interspaces smooth. Elytra each 2.3 times as long as wide; disc

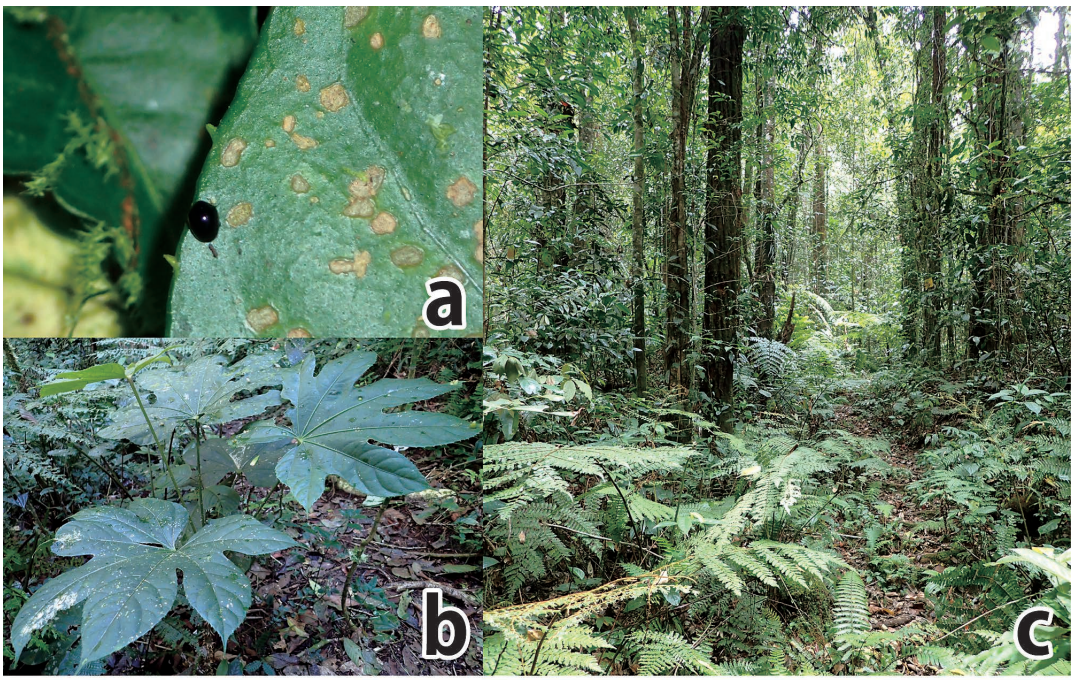

Fig. 3. Habitat of *Asisia kurosai* n. sp. —— a, Adult feeding on the host plant; b, Araliaceae host plants of *A. kurosai*, n. sp.; c, habitat of *A. kurosai* n. sp. near Tanah Rata, Cameron Highlands.

with ten sub-regular rows of weak and shallow punctures; interstices smooth, with a row of fine punctures. Prosternum 1.2 times as wide as long, strongly constricted medially, with the narrowest width at middle 0.5 times as wide as basal width; 1st abdominal sternite with a median lobe very sparsely punctate, leaving apical area impunctate; 4th and 5th with stridulatory files on lateral margins. Legs with simple claws. Aedeagus subparallel-sided on basal half, thence gradually widened to sub-apical portion, and roundly narrowed to apex, strongly curved down ventrally on apical 2/9 in lateral view; median orifice largely covered with sclerotized plate, narrowly opened in a crescent form; apical enlarged area distinctly concave on ventral side.

Material examined. 2 exs., Bandar Baru, Sibolangit, N. Sumatra, 13.II.1994, H. Takizawa leg.; 1 ex., ditto, 23.IV.1998, H. Takizawa leg.; 3 exs., ditto, 26, 27 & 31.X.1999, H. Takizawa leg.; 2 exs., Urung Tama, Sibolangit, N. Sumatra, 13 & 18.IX.1998, H. Takizawa leg.; 6 exs., ditto, 27 & 30. X.1999, H. Takizawa leg.

Remarks. Jacoby (1908) compared *Lamprosoma assamensis* with "*L. sumatrensis* Jac.", but he never published the latter species. Monros (1956) later described *L. sumatrana* based on the specimen identified as *L. sumatrensis* by Jacoby.

Beetles were usually found feeding on the leaves of young trees of Araliaceae species in the secondary forests.

Host plants. Araliaceae shrubs.

Distribution. Sumatra.

Asisia vietnamica (MEDVEDEV, 1968)

Guggenheimia vietnamica MEDVEDEV, 1968: 446 (Vietnam: Tam Dao; Moscow).

Diagnosis. Body oval, 3.1 mm in length, 2.1 mm in width; shining black. Head covered with small punctures, with ocular emargination shallow and arcuate, with ocular sulcus deep and pit-like; labrum with a high carina on middle projecting beyond apex. Pronotum covered with fine, moderately dense punctures; interspaces with fine reticulate microsculptures. Elytra covered with dense, larger punctures, not arranged in regular rows; interspaces finely reticulate (based on MEDVEDEV's original description).

Remarks. According to MEDVEDEV (1968), this species is distinguished from *Guggenheimia sumatrana* MONROS by the shallower ocular emargination, the absence of a longitudinal impression on the frons, the head and pronotum which are distinctly punctate with the microsculptures on the interspaces, and the confusedly punctate elytra.

Host plants. Unknown.

Distribution. Vietnam.

A Tentative Key to the Species of the Genus *Asisia* BEZDĚK, LÖBL et KONSTANTINOV, 2010

1. Body large, 4.0 mm in length; dorsum dark blue. ····· *A. caerulea* (JACOBY)
– Body smaller, less than 3.5 mm in length; dorsum blackish or elytra sometimes bluish. ····· 2
2. Elytra confusedly punctate. ····· *A. vietnamica* (MEDVEDEV)
– Elytra with punctures arranged in ten to 20 longitudinal rows. ····· 3
3. Elytra with ten regular rows of larger punctures, interstices with a row of fine punctures. ····· 4
– Elytra with dense punctures arranged in 15 to 20 longitudinal rows. ····· 5
4. Eyes with deep round emargination on middle of inner margin; labrum without distinct median carina; aedeagus broadly triangular at apex. ····· *A. kurosai* n. sp.
– Eyes with deep triangular emargination on middle of inner margin; labrum with a distinct median carina; aedeagus broadly rounded at apex. ····· *A. sumatrana* (MONROS)
5. Pronotum widened at middle, with a narrow transverse groove near anterior margin. ····· *A. nigrita* (JACOBY)
– Pronotum almost straightly narrowed from base to anterior angles, without such transverse groove. ····· 6
6. Prosternum rather robust, 1.2 times as wide as long; dorsum blackish with a slight bluish tinge; elytra much ovate, each twice as long as wide. ····· *A. assamensis* (JACOBY)
– Prosternum rather slender, at least as long as wide; elytra slender, each about 2.5 times as long as long. ····· 7
7. Body wider, 1.4–1.5 times as long as wide; elytra densely covered with distinct larger punctures which are larger than their interspaces behind humerus. ····· *A. chujoi* (TAKIZAWA), n. comb.
– Body much slender, 1.6 times as long as wide; elytra densely covered with smaller punctures which are distinctly narrower than their interspaces; interspace with large reticulate patterns, separating punctures. ····· *A. sakaii* (TAKIZAWA), n. comb.

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要　　約

滝沢春雄：西マレーシアからの 1 新種の記載をともなう *Asisia* 属の覚書（鞘翅目ハムシ科ツヤハムシ亜科）．———— マレー半島からツヤハムシ亜科の初記録となる *Asisia kurosai* n. sp. を命名，記載した．同時にネパールとインド北東部から記載された *Oomorphoides chujoi* Takizawa および *O. sakaii* Takizawa を本属に移し，*Asisia* 属の既知の 8 種の特徴を検討して，検索表を作成した．

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