

Myrmecophilous Species of *Drusilla* (Coleoptera, Staphylinidae,
Aleocharinae) Associated with *Lasius* (*Dendrolasius*) spp.
(Hymenoptera, Formicidae, Formicinae) from China

Part 2

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Abstract *Drusilla imurai* sp. nov. and *D. dendrolasii* sp. nov. of the aleocharine staphylinid tribe Lomechusini are described. These were collected from Hubei and Hunan Provinces in Central China, respectively.

The present paper is the second part of the series dealing with the myrmecophilous species of the genus *Drusilla* LEACH from China. In this part, we are going to describe two new species of the genus on the basis of materials taken in Hubei and Hunan Provinces on the collecting trip made by Dr. Yûki IMURA and the second author in 2000. For the abbreviations used in this paper, refer to MARUYAMA and KISHIMOTO (2002).

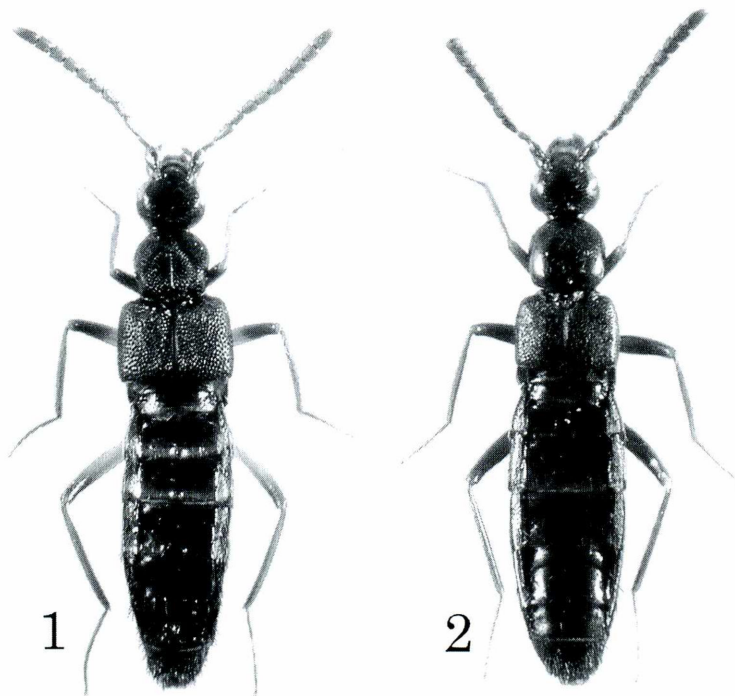
Drusilla imurai MARUYAMA et KISHIMOTO, sp. nov.

(Figs. 1, 3–10)

Type series. Holotype: ♂, Gaodongzi (700 m alt.), Dashaba, Huangjindong, Xianfeng, Hubei Prov., 9~14-VI-2000, TK leg. (*LDC*), at present in the collection of NSMT. Paratypes: 3 ♂♂, 1 ♀, same data as holotype (TUA & CMM).

Etymology. Dedicated to Dr. Yûki IMURA (Yokohama), an excellent taxonomist of the subfamily Carabinae (Coleoptera, Carabidae) and the partner of TK's collecting trip (2000) to China.

Description. Body length: 5.9–6.2 mm (from front margin of head to apex of

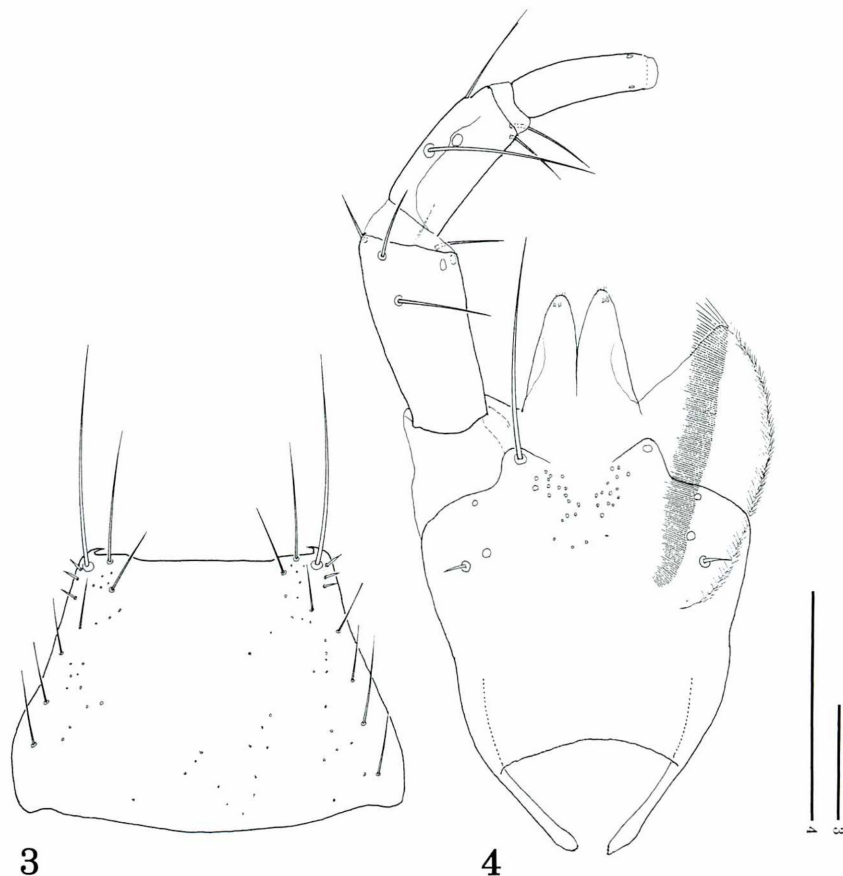


Figs. 1, 2. *Drusilla* species of China. — 1. *Drusilla imurai* MARUYAMA et KISHIMOTO, sp. nov. — 2. *D. dendrolasii* MARUYAMA et KISHIMOTO, sp. nov.

8th abdominal tergite); 2.4–2.5 mm (from front margin of head to apices of elytra).

Body (Fig. 1) very elongate and slender. Blackish brown in ground color; antennae reddish brown; apical margins of 2nd to 5th abdominal segments pale brown; mid and hind legs with base of femora, tibiae and tarsi yellowish brown.

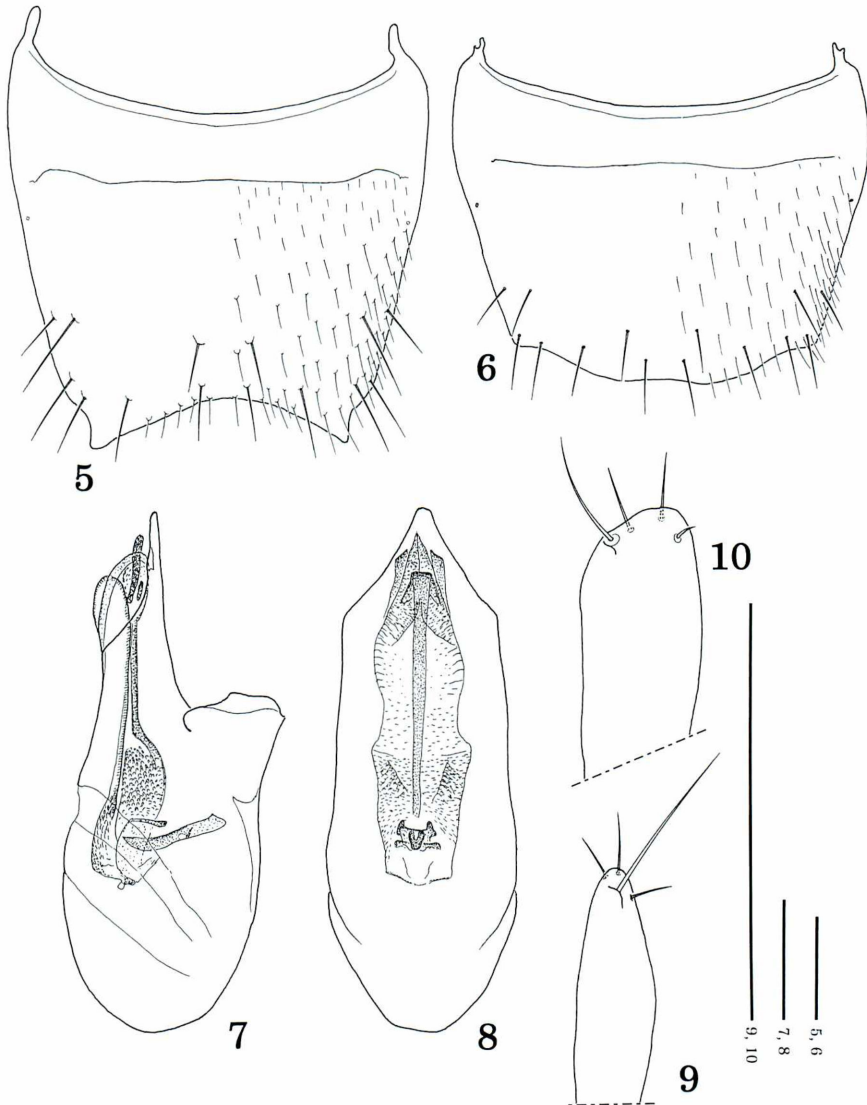
Head circular (width/length=0.94), moderately convex, broadest behind the anterior margin, slightly depressed above; surface very slightly reticulated and sparsely covered with setae; eye moderate in size, with very fine pubescence among facets; longitudinal diameter of eye slightly shorter than the length of postocular part; clypeus depressed laterally. Antenna 11-segmented, 1st segment stout and apically dilated, nearly 2.5 times as long as broad; 2nd shorter than the 1st; 3rd much longer than the 2nd but somewhat shorter than the 1st; 4th to 10th each slightly longer than wide; 11th conical, 1.5 times as long as broad; relative lengths of segments from basal to apical:— 31 : 13 : 22 : 12 : 13 : 13 : 13 : 12 : 13 : 13 : 26. Labrum transverse, truncate anteriorly but slightly emarginate anteromedially. Mandible slightly curved, pointed apically, and edentate. Maxilla moderately elongate; galea nearly parallel-sided, slightly curved near apex, with fine apical pubescence; lacinia much broader than galea, with fine pubescence on inner margin; maxillary palpus with 1st segment very short, 2nd



Figs. 3, 4. *Drusilla imurai* MARUYAMA et KISHIMOTO, sp. nov. — 3, Mentum, ventral view; 4, labium, ventral view (labial palpus is omitted and hypopharynx is indicated at the right side). Scale: 0.1 mm.

slightly curved, thickened toward apex, 3rd slightly longer than the 2nd, and 4th subulate, 1/3 as long as the 2nd. Mentum (Fig. 3) trapezoidal; anterior margin almost truncate but its lateral corners slightly prominent; surface sparsely covered with pseudo-pores except for anteromedial part. Prementum (Fig. 4) with 35–38 medial pseudo-pores, 2 real pores and 1 setal pore. Ligula (Fig. 4) bilobed and slender. Labial palpus (Fig. 4) with 1st segment long; 2nd shorter and narrower than the 1st; 3rd as long as the 2nd but much narrower.

Pronotum moderately convex with rounded anterior and posterior margins, as long as broad (width/length=1.0), almost as broad as head, widest behind anterior margin; side margin weakly sinuate; posterolateral corner angled; disc with median sulcus, and with a deep, large, and round depression (male) or a shallow depression (female) before median posterior margin; surface moderately granulate-punctured,



Figs. 5–10. *Drusilla imurai* MARUYAMA et KISHIMOTO, sp. nov. — 5, Male 8th tergite, dorsal view; 6, female 8th tergite, dorsal view; 7, median lobe of male genitalia, lateral view; 8, ditto, dorsal view; 9, apical lobe of paramerite, lateral view; 10, ditto, ventral view. Scale: 0.2 mm.

covered with short and rather stiff setae, and with 4 or 5 suberect bristles along lateral margins. Scutellum triangular; surface densely punctured and sparsely covered with minute setae. Metasternal process apically rounded. Elytra slightly widened posteriad, broader than long (width/length=1.39) and much broader than pronotum; posterior

margin of each elytron nearly truncate but slightly convex, thus forming a small recess at the adjoining point of elytra, posterior corner rounded; dorsal surface slightly convex, moderately and rugosely punctured, and covered with long setae; puncturation sparser laterally; lateral margin with 1 or 2 short blackish bristles. Hind wing entire.

Legs moderately long; relative lengths of tarsomeres from basal to apical: foretarsus:— 7:9:8:18; midtarsus:— 16:13:10:9:16; hindtarsus:— 27:14:12:10:18.

Abdomen elongate and somewhat expanded laterally; 3rd to 4th segments moderately expanded and 5th to 8th narrowing posteriad; surfaces of 3rd to 8th tergites shining, sparsely pubescent; number of black bristles on 3rd to 7th tergites: 4–3–3–4–2 (sometimes variable).

Male. Third and 4th tergites with a setiferous granulum posteromedially; 5th and 6th tergites with a pair of small setiferous granula posteromedially; 7th tergite with 2 pairs of small setiferous granula posteromedially, and a large setiferous granulum medially; 8th tergite (Fig. 5) broadly emarginate posteriorly, with 7 black bristles; 8th sternite entire, with 15–20 black bristles, with a row of sensory setae apically; 9th and 10th tergites with 4 short bristles, respectively; 9th sternite with 1 small bristle. Median lobe of male genitalia (Figs. 7, 8) somewhat slender, pointed apically in lateral view. Paramere shorter than median lobe; apical lobe of paramerite as in Figs. 9, 10.

Female. Third to 7th tergites simplified; 8th tergite (Fig. 6) slightly emarginate posteromedially, and with 7 blackish bristles; 8th sternite shaped as in male; 9th and 10th tergites with 4 short bristles, respectively. Spermatheca missing in the type series.

Diagnosis. *Drusilla imurai* is extremely similar to *D. watanabei* MARUYAMA et KISHIMOTO (2002, p. 228) of the *canaliculata* group in the coloration and puncturation of the body, but distinguished from the latter by the entire wing, broader elytra, and shapes of male 8th tergite and aedeagus.

Notes. The type series was taken from trails of dendrolasiine ant in a small secondary forest mixed with evergreen and deciduous trees in Xianfeng Xian, southwestern Hubei. They were observed with other myrmecophilous staphylinids including *Drusilla yunnanensis* PACE.

Host ant. *Lasius (Dendrolasius) capitatus*. (Determined by MM.)

Distribution. China (Hubei Province).

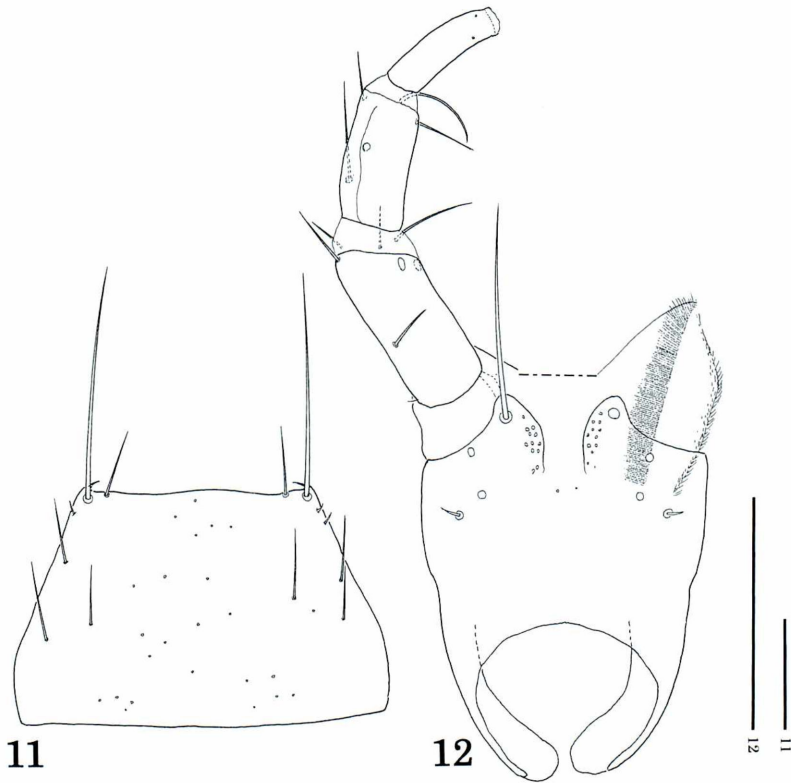
***Drusilla dendrolasii* MARUYAMA et KISHIMOTO, sp. nov.**

(Figs. 2, 11–15)

Type series. Holotype: ♀, Dohong-cun (1,030 m alt.), Da'an Xiang, Longshan, Hunan Prov., 13–VI–2000, TK leg. (LDS), at present in the collection of NSMT. Paratype: 1 ♀, same locality as holotype, 11–VI–2000, TK leg. (LDS) (CMM).

Etymology. Named after the subgeneric name of the host ant in referring to the similarity in coloration to the ant.

Description. Body length: 4.9–5.1 mm (from front margin of head to apex of 8th abdominal tergite); 2.0–2.1 mm (from front margin of head to apices of elytra).



Figs. 11, 12. *Drusilla dendrolasii* MARUYAMA et KISHIMOTO, sp. nov. — 11, Mentum, ventral view; 12, labium, ventral view (labial palpus is omitted and hypopharynx is indicated at the right side). Scale: 0.1 mm.

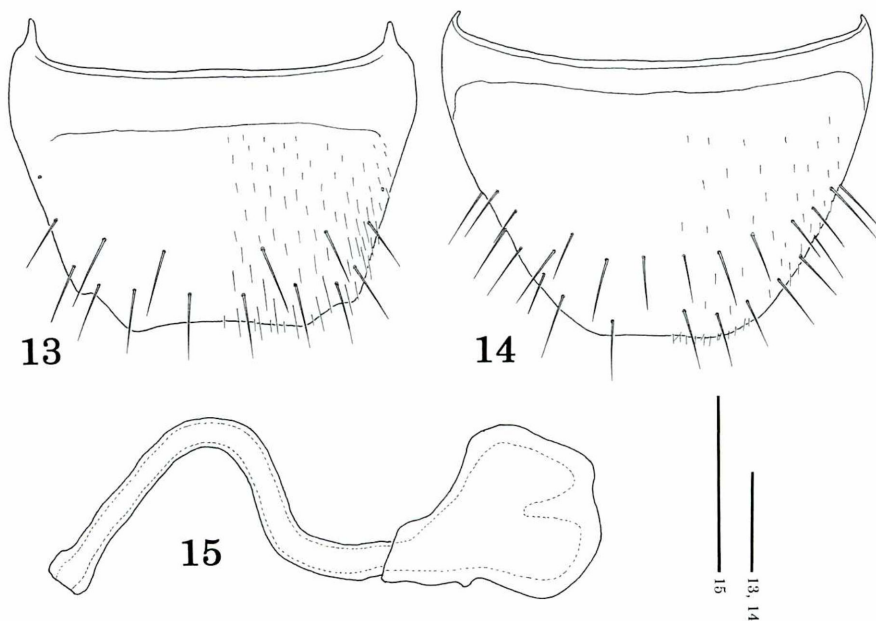
Body (Fig. 2) elongate and slender. Almost unicolorous; brown in ground color; mouthparts and legs slightly paler.

Head circular (width/length=0.95), moderately convex, broadest behind the middle; surface very slightly reticulated and sparsely covered with long setae; eye moderate in size, with very fine pubescence among facets; longitudinal diameter of eye as long as the length of postocular part; clypeus depressed laterally. Antenna 11-segmented, 1st segment stout and apically dilated, nearly 2.1 times as long as broad; 2nd shorter than the 1st; 3rd much longer than the 2nd but somewhat shorter than the 1st; 4th to 10th each slightly longer than wide; 11th conical, 1.6 times as long as broad; relative lengths of segments from basal to apical:— 26 : 11 : 17 : 10 : 10 : 10 : 10 : 11 : 11 : 11 : 16. Labrum transverse, truncate anteriorly but slightly emarginate anteromedially. Mandible slightly curved, pointed apically, and edentate. Maxilla moderately elongate; galea nearly parallel-sided, slightly curved near apex, with fine apical pubescence; lacinia much broader than galea, with fine pubescence on inner margin; maxillary pal-

pus with 1st segment very short, 2nd slightly curved, thickened toward apex, 3rd slightly longer than the 2nd, and 4th subulate, 1/3 as long as the 2nd. Mentum (Fig. 11) trapezoidal; anterior margin slightly emarginate with its lateral corners prominent; surface almost uniformly covered with pseudopores. Prementum (Fig. 12) with 25–30 medial pseudopores, 2 real pores and 1 setal pore. Ligula missing in the type series. Labial palpus (Fig. 12) with 1st segment long; 2nd shorter and narrower than the 1st; 3rd as long as the 2nd but much narrower.

Pronotum moderately convex with rounded anterior and posterior margins, as long as broad (width/length=1.0), a little broader than head, widest behind anterior margin; side margin weakly sinuate; disc with median sulcus, and with a small round depression before median posterior margin; surface finely punctured, covered with long setae, and with 2 suberect bristles around anterolateral corners. Scutellum triangular; surface slightly punctured and sparsely covered with minute setae. Metasternal process apically rounded. Elytra parallel-sided, broader than long (width/length=1.4) and broader than pronotum; posterior margin of each elytron nearly truncate but slightly convex, thus forming a small recess at the adjoining point of elytra, posterior corner rounded; dorsal surface flattened, moderately punctured, and covered with long setae; puncturation sparser posteriorly; lateral margin with 3 short blackish bristle. Hind wing entire.

Legs moderately long; relative lengths of tarsomeres from basal to apical : foretar-



Figs. 13–15. *Drusilla dendrolasii* MARUYAMA et KISHIMOTO, sp. nov. — 13, Female 8th tergite, dorsal view; 14, female 8th sternite; 15, spermatheca. Scale: 0.2 mm

sus:— 5 : 6 : 6 : 14; midtarsus:— 11 : 9 : 8 : 7 : 12; hindtarsus:— 20 : 11 : 10 : 8 : 16.

Abdomen elongate; 3rd to 4th segments moderately expanded and 5th to 8th narrowing posteriad; surfaces of 3rd to 8th tergites shining, sparsely pubescent; number of black bristles on 3rd to 7th tergites: 3–4–4–4–2 (sometimes variable).

Male. Unknown.

Female. Third to 7th tergites simplified; 8th tergite (Fig. 13) slightly emarginate posteromedially, and with 7 blackish bristles; 8th sternite (Fig. 14) entire but anterior margin slightly truncate, with 12 or 13 black bristles, with a row of sensory setae apically; 9th and 10th tergites with 4 short bristles, respectively. Spermatheca (Fig. 15) with capsule very large.

Diagnosis. *Drusilla dendrolasii* is similar to the members of the *canaliculata* group in the expanded abdomen and small elytra, but easily distinguished from these by the entire hind wings and the smaller body. From the other member of *Drusilla* with entire hind wings, this species can be distinguished by the body almost uniformly brown and the spermatheca bearing very large capsule.

Notes. The type locality is a secondary deciduous forest situated at the backyard of a small village in Longshan Xian, northwest Hunan (alt. 1,030 m). The specimens were collected from the trails of *L. (D.) spathepus* with other staphylinids including two *Drusilla* species (*D. watanabei* MARUYAMA et KISHIMOTO, *D. yunnanensis* PACE), histerids, scydmaenids and myrmecophilous crickets.

Host ant. *Lasius (Dendrolasius) spathepus*. (Determined by MM.)

Distribution. China (Hunan Province).

要 約

丸山宗利・岸本年郎：クサアリ亜属と共生する中国産ニセセミゾハネカクシ属 *Drusilla* の好蟻性種（第2報）。—— 中国湖北省および湖南省でクサアリ亜属のコロニーより得られたニセセミゾハネカクシ属の2種を検討した結果、未記載種であることが判明したので命名して記載した。*D. imurai* は *D. watanabei* を含む *canaliculata* 群の種に似ているが、完全な後翅と幅広い翅鞘をもつことなどで区別される。一方、*D. dendrolasii* は後翅をもち、ほぼ単色であることや、特徴的な雌の貯精囊をもつことにより同属の他の種から区別される。また両種のホストについても報告した。

Reference

- MARUYAMA M., & T. KISHIMOTO, 2002. Myrmecophilous species of *Drusilla* (Coleoptera, Staphylinidae, Aleocharinae) associated with *Lasius (Dendrolasius)* spp. (Hymenoptera, Formicidae, Formicinae) from China. Part 1. *Spec. Bull. Jpn. Soc. Coleopterol.*, Tokyo, (5): 227–232.