



HOKKAIDO UNIVERSITY

Title	Some New Distributional Records of the Genus <i>Laius</i> (Coleoptera, Melyridae)
Author(s)	Yoshitomi, Hiroyuki; Ahn, Kee-Jeong; Ogawa, Naoki
Citation	Elytra, New series, 5(1), 115-119
Issue Date	2015-05-25
Doc URL	https://hdl.handle.net/2115/78202
Type	journal article
File Information	Yoshitomi&al_2015_Elytra_Laius.pdf



Some New Distributional Records of the Genus *Laius* (Coleoptera, Melyridae)

Hiroyuki YOSHITOMI¹⁾, Kee-Jeong AHN²⁾ and Naoki OGAWA³⁾

¹⁾ Ehime University Museum, Bunkyo 3, Matsuyama, 790–8577 Japan

E-mail: hymushi@agr.ehime-u.ac.jp

²⁾ Department of Biology, Chungnam National University, Daejeon, 305–764 Korea

³⁾ Systematic Entomology, Graduate School of Agriculture, Hokkaido University, Sapporo, 060–8589 Japan

Abstract New distributional records of three *Laius* species are listed based on the additional specimen data: *Laius sabangensis* WITTMER, 1985 from Camotes Is., the Philippines, *Laius asahinai* NAKANE, 1955 from Korea, and *Laius rufipes* MONTROUZIER, 1860 from New Caledonia. *Laius rufipes* is redescribed based on the additional specimens.

The melyrid genus *Laius* GUÉRIN-MÉNEVILLE, 1830 inhabits rocky seashore, and one to three species are distributed in the same place (YOSHITOMI, 2014).

In the present paper, we provide new distributional records of three species of the genus *Laius*. Of these, *Laius rufipes* MONTROUZIER, 1860 is redescribed based on the additional specimens from New Caledonia.

Terminology and methods are followed YOSHITOMI (2014).

The specimens used in this paper are deposited in the following institutes: CNUIC: Chungnam National University Insect Collection, Daejeon, Korea; EUMJ: Ehime University Museum, Matsuyama, Japan.

Laius sabangensis WITTMER, 1985

Laius sabangensis WITTMER, 1985: 386; YOSHITOMI, 2014: 16 [description of male genitalia].

Specimens examined. 1 ♂, 2 ♀♀ (CNUIC), “Philippines: Camotes isl., San Francisco, Puerto-bellu, Southern Poblacion, 14.XII.2004, M. J. JEON leg., ex under stone”.

Distribution. Philippines (Palawan, Camotes [new record]).

Laius asahinai NAKANE, 1955

Laius asahinai NAKANE, 1955: 375; YOSHITOMI & LEE, 2010: 539 [redescription]; YOSHITOMI, 2014: 20 [description of male genitalia].

Specimens examined. 1 ♂, 1 ♀ (CNUIC, in ethanol), “KOREA: Jeonnam Prov., Wando-gun, Sinji-myeon Gain-ri, N34°19'17.7" E126°51'51.1", 10 m, 16.V.2008, JG LEE leg., ex under seaweeds”; 1 ♂ (CNUIC), “KOREA: Chungnam Prov., Bangpo beach, 6.VI.1998, K.-J. AHN leg., on rocks splash zone”; 4 ♂♂, 1 ♀ (CNUIC), “KOREA: Jeju Prov., Namjeju-gun, Seong san-eup, Ilchul-bong, 11.VI.2005, S. I. LEE, S. J. PARK, K. J. AHN, M. J. JEON, D. H. LEE leg., ex stones”; 1 ♀ (CNUIC), “Jeonnam Prov., Jindo, Imhoe-myeon, Geumgab beach, 21.VIII.2001, K. J. AHN, J.-H. AHN, S.-J. PARK, C.-W. SHIN, M. J. JEON leg., ex under stone”.

Distribution. Japan (Honshu, Izu Isls. [Oshima, Miyake-jima, Hachijo-jima], Shikoku, Kyushu, Shimo-koshiki-jima, Yakushima, Tanegashima), Korea (new record).

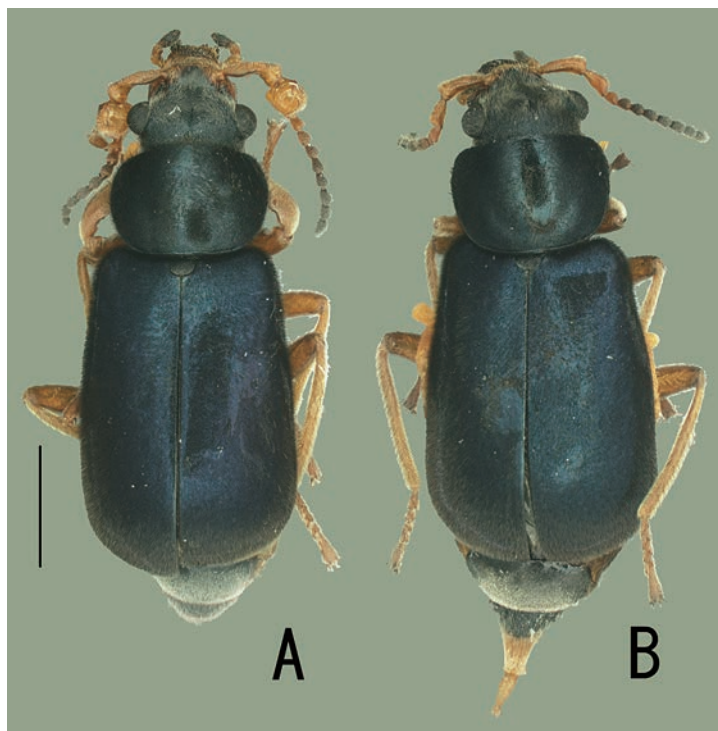


Fig. 1. *Laius rufipes* from New Caledonia. — A, Male; B, female. Scale bar = 1.0 mm.

***Laius rufipes* MONTROUZIER, 1860**

(Figs. 1–3)

Laius rufipes MONTROUZIER, 1860: 259.

Specimens examined. 6 ♂♂, 4 ♀♀ and 1 larva (EUMJ), “Teremba, South Region, New Caledonia, 21°44′06.6″S, 165°42′49.9″E 16.II.2014”

M a l e (Fig. 1A). Body oblong, glossy, densely covered with short black setae. Coloration of head, pronotum and elytra black with strong bluish luster; labrum, clypeus, maxillae, labium, antennomeres I–IV and legs yellowish orange; antennomeres V–XI, maxillary and labial palpomeres III, mandibles and ventral part of thorax and abdomen black.

Head slightly narrower than pronotum, densely punctate; vertex with shallow median sulcus; eyes large, strongly prominent; HL/HW 0.73–0.86 (0.79). Antennae (Fig. 2A) stout; antennomere III (Fig. 3) semicircular, deeply concave in dorso-mesal portion, L/W = 0.92; approximate ratio of each antennomeres ($n = 1$) as 8.7 : 1.0 : 5.5 : 1.8 : 2.3 : 2.2 : 2.2 : 2.2 : 2.2 : 3.3. Pronotum quadrate, widest near anterior margin, rounded and obscure in antero- and postero-lateral angles, punctate as in head; PW/PL 1.31–1.45 (1.40). Scutellum semicircular, covered with very fine punctures. Elytra oblong, subparallel-sided near base to apical 1/4; EL/EW 1.40–1.59 (1.46); EL/PL 2.60–2.86 (2.76); EW/PW 1.30–1.38 (1.34); TL/EW 2.37–2.65 (2.47). Legs relatively long and slender. Caudal margin of tergite VIII shallowly concave.

Aedeagus (Fig. 2C) about 1.04 mm, shallowly concave at aedeagal apex. Gonoporal piece (Fig. 2D) long and straight, 0.79 mm in GL; GL/AL 1.53. Ligula (Fig. 2E) short, strongly curved; LL 0.21

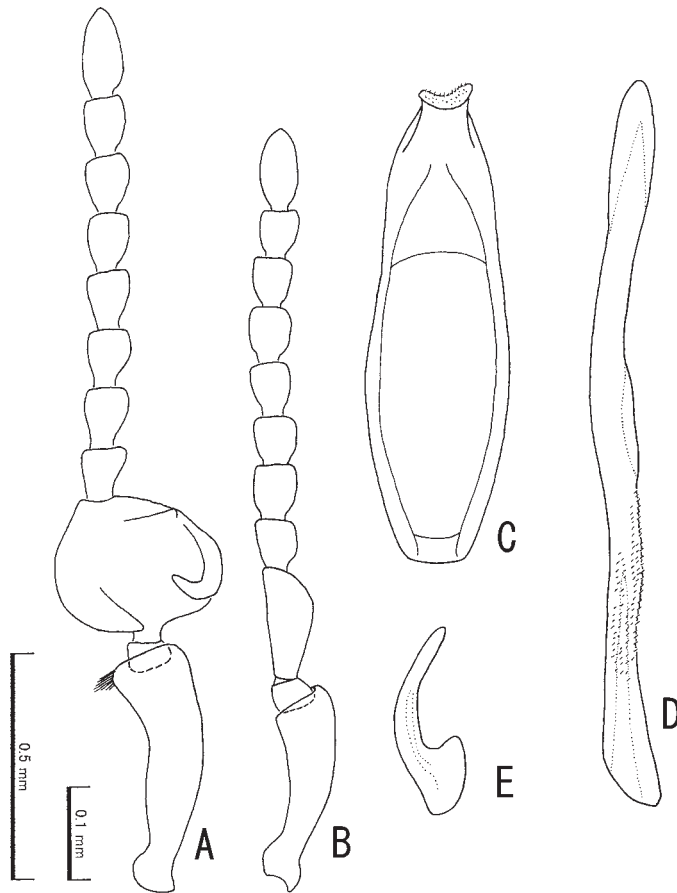


Fig. 2. Antennae (A–B) and male genitalia (C–E) of *Laius rufipes*. — A, C–E, Male; B, female. C, aedeagus; D, gonoporal piece; E, ligula. Scale: 0.5 mm for A–C, 0.1 mm for D, E.

mm; LW 0.07 mm; LL/LW 2.79; GL/LL 3.85.

Female (Fig. 1B). Similar to male in general appearance; HL/HW 0.75; PW/PL 1.42; EL/EW 1.35; EL/PL 2.84; EW/PW 1.48; TL/EW 2.25. Antennae (Fig. 2B) stout; antennomere III relatively long, L/W = 2.40; approximate ratio of each antennomere (n = 1) as 7.2 : 1.0 : 4.0 : 1.8 : 2.0 : 1.8 : 1.8 : 2.0 : 1.8 : 1.7 : 3.0.

Measurements. Male (n = 5): TL 4.33–4.73 (4.57) mm; HL 0.80–0.95 (0.88) mm; HW 1.08–1.20 (1.12) mm; PW 1.31–1.45 (1.38) mm; PL 0.93–1.00 (0.98) mm; EL 2.60–2.83 (2.71) mm; EW 1.70–2.00 (1.85) mm. Female (n = 1): TL 4.50 mm; HL 0.85 mm; HW 1.13 mm; PW 1.35 mm; PL 0.95 mm; EL 2.70 mm; EW 2.00 mm.

Distribution. Art Island, New Caledonia (new record).

Remarks. This is distinct species in having yellowish orange legs. Two Indonesian species, *Laius pankowi* WITTMER, 1999 and *Laius satoi* YOSHITOMI, 2008, have yellowish orange legs, but it can be easily distinguishable from them by the shapes of male antennomeres III and male genitalia. Judging from the characteristics of endophallic sclerites, this species belongs to species group 3 (sensu YOSHITOMI, 2014).

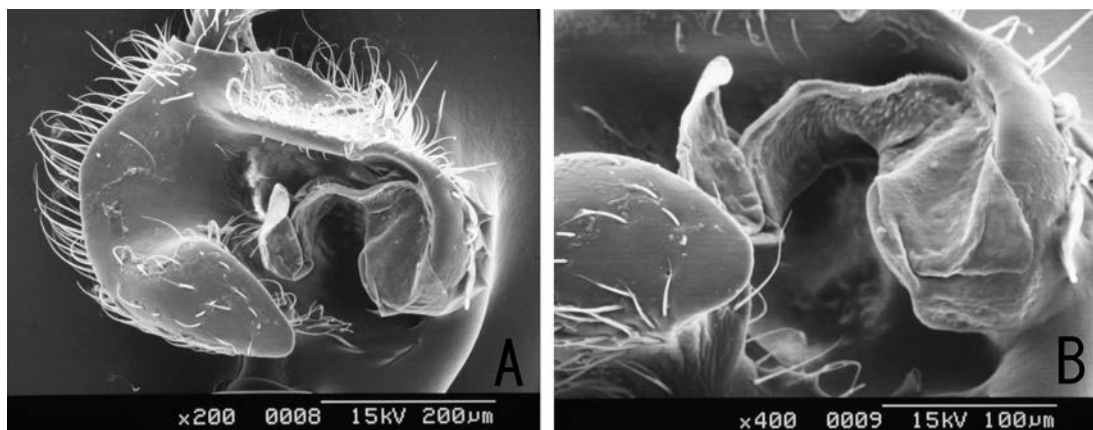


Fig. 3. SEM photograph of *Laius rufipes*. — A, Male antennomere III; B, its close up.

Discussion

Most species of the genus *Laius* show narrow distributions (YOSHITOMI, 2014). However, *Laius asahinai* is widely distributed in Honshu to Kyushu including territorial islands, and its distributional area spread to the Korean Peninsula in this paper. This species is frequently collected together with *Ochthebius vandykei* group (formerly *Neochthebius* ORCHYMONT, 1932; Coleoptera, Hydraenidae) in same site, but the hydraenid group is speciated to six species in the distributional area of *Laius asahinai* (JÄCH & DELGADO, 2014).

Acknowledgements

The research was supported by a grant from the National Institute of Biological Resources (NIBR), funded by the Ministry of Environment (MOE) of the Republic of Korea (NIBR No. 2014-02-001), and by the KAKENHI (24510333; head investigator: H. KOJIMA).

要 約

吉富博之・Kee-Jeong AHN・小川直記：イソジョウカイモドキ属（鞘翅目ジョウカイモドキ科）の分布記録追加。—— イソジョウカイモドキ属 *Laius* は海岸の岩礁地帯に生息し、1–3種が1箇所に見られる。YOSHITOMI (2014) は世界のイソジョウカイモドキを再検討したが、新たな分布記録が確認されたので以下の通り報告した。 *Laius sabangensis* WITTMER, 1985 をフィリピン Camotes Is. から、イソジョウカイモドキ *Laius asahinai* NAKANE, 1955 を韓国から、 *Laius rufipes* MONTROUZIER, 1860 をニューカレドニアからそれぞれ記録した。 *Laius rufipes* はこれまで再検討されていなかったので再記載を行い、雄交尾器の特徴から第3種群 (sensu YOSHITOMI, 2014) に属することが判明した。

References

- JÄCH, M. A., & J. A. DELGADO, 2014. Revision of the Palearctic species of the genus *Ochthebius* LEACH XXIX. The Asian species of the *O. vandykei* group (Coleoptera: Hydraenidae). *Koleopterologische Rundschau*, **84**: 81–100.

- MONTROUZIER, P., 1860. Essai sur la faune entomologique de la Nouvelle-Calédonie (Balade) et des îles des Pins, Art, Lifu, etc. *Annales de la Société Entomologique de France*, (3) **8**: 229–308.
- NAKANE, T., 1955. Marine insects of the Tokara Islands. V. Three new species of the genus *Laius* GUÉRIN from Kyushu and the Tokara Islands, with notes on a species from Marianna. *Publications of the Seto Marine Biological Laboratory*, **4** (2–3): 373–378.
- WITTMER, W., 1985. 38. Beitrag zur Kenntnis der indo-malaiischen Fauna. *Entomologische Arbeiten aus dem Museum G. Frey*, **33–34**: 381–390.
- YOSHITOMI, H., 2014. Endophallic structures of the genus *Laius* (Coleoptera, Malachiidae), with description of the species. *European Journal of Taxonomy*, (97): 1–29.
- YOSHITOMI, H., & C.-F. LEE, 2010. Revision of the Taiwanese and Japanese species of the genus *Laius* (Insecta: Coleoptera: Malachiidae). *Zoological Studies*, **49** (4): 534–543.

Manuscript received 27 February 2015;
revised and accepted 19 March 2015.