

**TWO NEW SPECIES OF THE GENUS *DEMIMAEA* PASCOE, 1870
(COLEOPTERA: CURCULIONIDAE) FROM THE ORIENTAL REGION**

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Summary. Two new species, *Demimaea leleji* **sp. n.** from Nepal and *D. kaliaantanensis* **sp. n.** from Indonesia (South Kalimantan Province), are described and illustrated. *Demimaea leleji* **sp. n.** is similar to *D. minuta* Voss, 1937 but is distinguished by a black body, a uniformly convex pronotum, and elytra without bands of scales and with deeply punctate striae. *Demimaea kaliaantanensis* **sp. n.** is closely related to *D. fascicularis* Roelofs, 1874 but is distinguished by elytra without tufts of setae, deeply punctate striae, a densely and coarsely punctate pronotum, and a very faint spot of scales in the apical quarter. This species is the first record of *Demimaea tschungseni* Voss, 1958 from Vietnam. The status of the tribe Demimaeini Voss, 1937, **stat. resurr.** has been restored. A key to the tribes similar to the tribe Demimaeini is given.

Key words: Curculionoidea, Curculioninae, Demimaeini, new species, new record, Nepal, Indonesia, Vietnam.

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Резюме. В статье описаны два новых вида: *Demimaea leleji* **sp. n.** из Непала и *D. kaliaantanensis* **sp. n.** из Индонезии (провинция Южный Калимантан). *Demimaea leleji* **sp. n.** похож на *D. minuta* Voss, 1937, но отличается чёрным телом, равномерно выпуклым переднеспинкой и надкрыльями без полос из чешуек и с глубокими точечными бороздками. *Demimaea kaliaantanensis* **sp. n.** схож с *D. fascicularis* Roelofs, 1874, но отличается надкрыльями без пучков волосков, глубокими точечными бороздками, густо и грубо точечной переднеспинкой и очень слабым пятном из чешуек в апикальной четверти. *Demimaea tschungseni* Voss, 1958 впервые зарегистрирован в фауне Вьетнама. Восстановлен статус трибы Demimaeini Voss, 1937, **stat. resurr.** Составлена определительная таблица для триб сходных с трибой Demimaeini.

INTRODUCTION

The genus *Demimaea* Pascoe, 1870 includes 29 modern species and belongs to the subfamily Curculioninae (Alonso-Zarazaga & Lyal, 1999). The oldest forms have been described from late Eocene Rovno amber (Legalov *et al.*, 2023). The genus is distributed in

East Asia (*Demimaea basalis* (Kôno, 1939), *D. circulus* (Roelofs, 1875), *D. fascicularis* (Roelofs, 1874), *D. minuta* Voss, 1937, *D. mori* Kôno, 1939, *D. okuboana* Voss, 1943, *D. okuboi* Kôno, 1939, *D. tricolor* (Roelofs, 1875), *D. tschungseni* Voss, 1958, and *D. vau* Voss, 1953 – all recorded from Japan, China, and Korea), Southeast Asia (*D. leleji* sp. nov. from Nepal, *D. eugenii* Korotyaev, 2015 and *D. tschungseni* from Vietnam, *D. bakeri* Marshall, 1926 from Singapore, *D. luctuosa* Pascoe, 1870 from Myanmar, *D. castanea* Voss, 1937 from Malaysia (Sabah), *D. gibbicollis* Voss, 1937, *D. drescheri* Voss, 1940, and *D. trigonalis* Voss, 1940 from Indonesia (Java), *D. sumatrana* Voss, 1937 from Indonesia (Sumatra), *D. strumosa* Heller, 1900 from Indonesia (Sulawesi), *D. kaliantanensis* sp. n. from Indonesia (Kalimantan), *D. circumcincta* Voss, 1937, *D. dorsalis* Voss, 1937, *D. inculta* Voss, 1937, *D. vicina* Voss, 1937, and *D. philippinensis* Voss, 1937 from the Philippines, *D. simillima* Heller, 1929 from the Moluccas (Buru), *D. fasciata* Voss, 1937 from New Guinea, and *D. dewittei* Voss, 1962 from the Democratic Republic of the Congo) (Pascoe, 1870; Roelofs, 1874, 1875; Heller, 1900, 1929; Marshall, 1926; Kôno, 1939; Voss, 1937a, 1937b, 1940, 1943, 1953, 1958, 1962; Morimoto, 1994; Korotyaev, 2015; Alonso-Zarazaga *et al.*, 2023; present data). *Demimaea luctuosa* has been recorded from North India (Gardner, 1934). The website (<https://www.inaturalist.org/taxa/848435-Demimaea#map-tab>) contains photographs of the *Demimaea* species from Central and East India, Thailand, and mainland Malaysia.

This paper describes two new species of *Demimaea*, found in the Oriental Region. It is the first record of the genus from Nepal and third species known from Kalimantan.

MATERIAL AND METHODS

The type specimens are kept in the ISEA (Institute of Systematics and Ecology of Animals, Novosibirsk, Russia). Descriptions and body measurements were made using a Zeiss Stemi 2000-C dissecting stereomicroscope. The photographs were taken by S.V. Reshetnikov. The terminology of weevil body structure is based on Lawrence *et al.* (2010).

TAXONOMY

Subfamily Curculioninae Latreille, 1802

Tribe Demimaeini Voss, 1937, stat. resurr.

REMARKS. The Demimaeini was described as an independent tribe (Voss, 1937). However, Oberprieler (1993) moved it to the rank of a subtribe within the tribe Tychiini. Nevertheless, the Demimaeini is clearly distinguished from the tribe Tychiini by the following features: the posterior margins of ventrites 2–4 are almost straight; the prosternum has a rostral channel and postocular lobes; the body has plumose scales; the rostrum is thick, as a rule shorter than the pronotum; the apical third of the antennal scrobes is visible from above; the base of the elytra is much wider than the base of the pronotum.

Key to tribes similar to the tribe Demimaeini

1. Posterior margins of ventrite 2 or ventrites 2 and 3 or ventrites 2–4 strongly curved
posteriorly at side 2
- Posterior margins of ventrites 2–4 straight or weakly curved 3
2. All femora strongly enlarged with large tooth. Posterior margins of ventrites 2–4 strongly
curved posteriorly at side **Ceratopodini**

- Femora not enlarged, without teeth or with small tooth. Posterior margins of ventrites 2–3 or ventrite 2 strongly curved posteriorly at side **Tychiini**
- 3. Eyes nearly contiguous dorsally. Rostrum long. Femora thickened with large tooth **Ancylocnemidini**
- Eyes more or less widely separated 4
- 4. Prosternum with postocular lobes. Rostrum thick, shorter than pronotum. Apical third of antennal scrobes visible from above. Base of elytra much wider than base of pronotum **Demimacini**
- Prosternum without postocular lobes. If they present, rostrum long and narrow, and apical third of antennal scrobes not visible from above 5
- 5. Eyes clearly protrude from contour of head 6
- Eyes not protrude from contour of head 7
- 6. Elytra with distinct striae. Antennae usually inserted to apical third of rostrum or behind its middle. Ventrites almost homonomous. Femora usually with teeth. Eyes usually strongly convex **Anthonomini** (part)
- Elytra without striae. Antennae inserted anterior to middle of flattened rostrum. Ventrites 1–2 elongated. Ventrites 3–4 short. Femora without teeth. Eyes weakly convex **Itini**
- 7. Eyes nearly contiguous at ventral surface of head **Acentrusini**
- Eyes widely separated ventrally 8
- 8. Eyes shifted toward lower edge of head **Styphlini**
- Eyes lateral 9
- 9. Ventrites nearly homonomous **Anthonomini** (part)
- Ventrites 1–2 elongated. Ventrites 3–4 short **Ellescini**

Genus *Demimaea* Pascoe, 1870

***Demimaea kaliantanensis* Legalov, sp. n.**

<https://zoobank.org/NomenclaturalActs/3EC961B7-4290-4A4A-A2A8-193B8788F0A7>

Figs 1, 3

TYPE MATERIAL. Holotype – ♀ (ISEA), **Indonesia**: South Kalimantan, Kandangan District, 17 km NE Lonsado, h=900 m, 23.IX–30.X 1997, leg. St. Jakl.

DESCRIPTION. FEMALE. Body black, covered with narrow pale scales and brownish semierect setae. Antennae, unci and tarsi red-brown. Plumose scales located on base of pronotum, scutellar shield, sutural interstria, bottom, and inner edge of femora, form very faint spot of scales apical quarter of elytra. Length of body: 3.3 mm. Length of rostrum: 0.9 mm. Rostrum moderately long and stout, slightly shorter than pronotum, 3.1 times as long as wide at apex and wide at base, about 2.6 times as long as wide at midlength, weakly curved, densely punctuate dorsally, with weak median longitudinal carina. Antennal scrobe lateral, directed towards ventral margin of eye, visible from above in anterior part. Forehead quite narrow, about 0.5 times as wide as rostrum base, flattened dorsally, finely punctate. Eyes large, transverse, not protruding from outline of head, finely faceted. Antennae geniculate, inserted at apical one-third of rostrum. Scape elongate, not extending towards eye, about 3.8 times as long as wide at apex. Antennomeres 2 and 3 long-conical. Antennomere 2 2.0 times as long as wide at apex, 0.5 times as long as and slightly narrower than antennomere 1. Antennomere 3 2.0 times as long as wide at apex, about 0.7 times as long as and about 0.7 times as narrow as antennomere 2. Antennomeres 4–7, subconical, subequal in length. Antennomere 4 about 0.9 times as long as wide at apex, 0.5 times as long as and slightly wider than antennomere 3.



Figs. 1–4. *Demimaea* spp., habitus, holotypes, females: 1 – *D. kaliantanensis* sp. n., dorsal view; 2 – *D. leleji* sp. n., habitus, dorsal view; 3 – *D. kaliantanensis* sp. n., lateral view; 4 – *D. leleji* sp. n., lateral view.

Antennomere 5 0.8 times as long as wide at apex, slightly wider than antennomere 4. Antennomere 6 about 0.7 times as long as wide at apex, 1.2 times as wide as antennomere 5. Antennomere 7 0.6 times as long as wide at apex, slightly wider than antennomere 6. Antennomere 8 about 0.5 times as long as wide at apex, about 1.2 times as wide as antennomere 7. Antennomere 9 0.8 times as long as wide at apex, 2.0 times as long as and about 1.3 times as wide as antennomere 8. Antennomere 10 0.6 times as long as wide at apex, slightly shorter and of same width to antennomere 9. Antennomere 11 subequal in length and width at base, about 1.3 times as long as and slightly narrower than antennomere 10. Pronotum bell-shaped, about 1.2 times as long as wide at apex, about 0.9 times as long as wide in middle, equal to wide at base. Pronotal disc hump-shaped convex dorsally, densely and coarsely punctate by large points. Greatest width before middle. Lateral margins weakly rounded. Scutellar shield broadly subtrapezoidal, weakly convex dorsally. Elytra subovoid, dorsally convex, about 1.3 times as long as wide at base and in middle, about 1.9 times as long as wide at apical fourth, 2.1 times as long as pronotum, with band of plumose scales, without tufts of setae. Greatest width in humeri. Elytral base distinctly wider than base of pronotum. Humeri convex. Striae regular, narrow, quite deep, with sparse punctation. Interstriae flat, 3.7–4.0 times as wide as striae, finely punctate, each with 2–3 rows of semierect setae. Prosternum punctate, with rostral channel. Front margin of prosternum with weak postocular lobes. Procoxal cavities contiguous and rounded. Precoxal portion of prosternum short. Postcoxal portion about 0.3 times as long as procoxal cavity length and slightly longer than precoxal portion. Metaventricle convex, punctate, about 1.4 times as long as metacoxal cavity length. Metanepisterna 5.0 times as long as wide in middle. Abdomen weakly convex, densely punctate. Ventrites 1 and 2 fused. Ventrite 1 slightly shorter than length of metacoxal cavity. Posterior margins of ventrites 2–4 slightly curved. Ventrite 2 0.8 times as long as ventrite 1. Ventrite 3 about 0.7 times as long as ventrite 2. Ventrite 4 of same length to ventrite 3. Ventrite 5 2.5 times as long as ventrite 4, of same length to ventrites 2 and 3 combined. Pygidium covered by elytra. Legs long. Procoxae subconical. Mesocoxae spherical. Metacoxae transverse. Femora clavate, with almost median, large, ventral tooth. Tibiae slightly curved, uncinata. Tarsi long. Two basal tarsomeres conical. Tarsomere 2 distinctly shorter than tarsomere 1. Tarsomere 3 strongly bilobed. Tarsomere 5 elongated. Tarsal claws free at base, toothed.

MALE unknown.

COMPARISON. The new species is closely related to *Demimaea fascicularis* Roelofs, 1874 but is distinguished by elytra without tufts of setae, deeply punctate striae, a densely and coarsely punctate pronotum, and a very faint spot of scales in the apical quarter.

DISTRIBUTION. Indonesia (South Kalimantan Province).

ETYMOLOGY. From Kalimantan Isl.

***Demimaea leleji* Legalov, sp. n.**

<https://zoobank.org/NomenclaturalActs/D8B327A5-F3EE-4BD5-878B-6108D3A8C351>

Figs 2, 4

TYPE MATERIAL. Holotype – ♀ (ISEA), **Nepal**: Solukhumbu – Ramechhap Distr., Kinja-Bhandar, 27°35.0'N, 86°24.5 'E – 27°34.2'N, 86°21.6'E, h=1500–1800 m, 4.VI 2018, leg. R. Yu. Dudko.

DESCRIPTION. FEMALE. Body black, covered with narrow pale scales and brownish semierect setae. Antennae, unci and tarsi red-brown. Plumose scales located on base of pronotum, scutellar shield, sutural interstria, bottom, and inner edge of femora. Length of body: 2.4 mm. Length of rostrum: 0.7 mm. Rostrum moderately short and stout, 0.6 times as long as pronotum, about 2.6 times as long as wide at apex and wide at base, 2.1 times as long

as wide at midlength, weakly curved, densely punctate dorsally, with median smooth longitudinal area. Antennal scrobe lateral, directed towards ventral margin of eye, visible from above in anterior part. Forehead narrow, about 0.3 times as wide as rostrum base, flattened dorsally, finely punctate. Eyes large, transverse, not protruding from outline of head, finely faceted. Antennae geniculate, inserted at apical one-third of rostrum. Scape elongate, not extending towards eye, 5.6 times as long as wide at apex. Antennomeres 2–8 subconical. Antennomere 2 2.0 times as long as wide at apex, about 0.4 times as long as and of same width to antennomere 1. Antennomere 3 about 1.7 times as long as wide at apex, 0.6 times as long as and 0.7 times as narrow as antennomere 2. Antennomere 4 about 0.5 times as long as wide at apex, 0.7 times as long as and of same width to antennomere 3. Antennomere 5 about 0.6 times as long as wide at apex, about 1.3 times as long as and slightly wider than antennomere 4. Antennomere 6 about 0.6 times as long as wide at apex, of same length and slightly wider than equal to antennomere 5. Antennomere 7 about 0.6 times as long as wide at apex, slightly longer and wider than antennomere 6. Antennomere 8 about 0.6 times as long as wide at apex, about 1.3 times as long as and about 1.3 times as wide as antennomere 7. Antennomere 9 about 0.7 times as long as wide at apex, about 1.5 times as long as and about 1.3 times as wide as antennomere 8. Antennomere 10 about 0.6 times as long as wide at apex, 0.8 times as long as and slightly narrower than antennomere 9. Antennomere 11 subequal in length and width at base, about 1.4 times as long as and about 0.8 times as narrow as antennomere 10. Pronotum bell-shaped, about 1.7 times as long as wide at apex, about 1.3 times as long as wide in middle, about 1.4 times as long as wide at base. Pronotal disc uniformly convex dorsally, sparsely punctate by large points. Greatest width in middle. Lateral margins weakly rounded. Scutellar shield broadly subtrapezoidal, weakly convex dorsally. Elytra subovoid, dorsally convex, about 1.3 times as long as wide at base and in middle, about 2.1 times as long as wide at apical fourth, 1.5 times as long as pronotum, without bands of plumose scales. Greatest width in humeri. Elytral base distinctly wider than base of pronotum. Humeri convex. Striae regular, narrow, quite deep, with sparse punctation. Interstriae flat, about 2.7 times as wide as striae, finely punctate, each with 1–2 rows of semierect setae. Prosternum punctate, with rostral channel. Front margin of prosternum with weak postocular lobes. Procoxal cavities contiguous and rounded. Precoxal portion of prosternum short. Postcoxal portion about 0.3 times as long as procoxal cavity length and slightly longer than precoxal portion. Metaventricle convex, punctate, subequal to metacoxal cavity length. Metanepisterna about 3.3 times as long as wide in middle. Abdomen weakly convex, densely punctate. Ventrites 1 and 2 fused. Ventricle 1 of same length to length of metacoxal cavity. Posterior margins of ventrites 2–4 slightly curved. Ventricle 2 0.8 times as long as ventrite 1. Ventricle 3 about 0.8 times as long as ventrite 2. Ventricle 4 of same length to ventrite 3. Ventricle 5 about 1.8 times as long as ventrite 4, slightly longer than ventrite 1. Pygidium covered by elytra. Legs long. Procoxae subconical. Mesocoxae spherical. Metacoxae transverse. Femora clavate, with almost median, small, ventral tooth. Tibiae slightly curved, uncinat. Tarsi long. Two basal tarsomeres conical. Tarsomere 2 distinctly shorter than tarsomere 1. Tarsomere 3 strongly bilobed. Tarsomere 5 elongated. Tarsal claws free at base, toothed.

MALE unknown.

COMPARISON. The new species is similar to *Demimaea minuta* Voss, 1937 but is distinguished by a black body, a uniformly convex pronotum, and elytra without bands of plumose scales and with deeply punctate striae.

DISTRIBUTION. East Nepal.

ETYMOLOGY. Patronymic. The species is named in honor of Arkady S. Lelej (Vladivostok, Russia), who contributed to the study of Asian insects.

***Demimaea tschungseni* Voss, 1958**

MATERIAL. ♀ (ISEA), **Vietnam:** Yên Bái Province, Yên Bái, V.2024, local collector.

REMARKS. This species was described from Fujian (Voss, 1958). It is the first record of this species from Vietnam.

DISTRIBUTION. China (Fujian), Vietnam (Yên Bái Province).

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