

Descriptions of Five New Species of the Subgenus  
*Hypostenus* of the Genus *Stenus* LATREILLE  
(Coleoptera, Staphylinidae) from Japan<sup>1,2)</sup>

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**Abstract** Five new species of the subgenus *Hypostenus* of the staphylinid genus *Stenus* are described as follows: *S. coiffaitiellus* from Mie Pref., *S. aoi* from Fukui Pref., *S. maiko* from Shiga Pref., *S. kagura* from Okayama Pref., *S. daigonis* from Kyoto-fu.

Key words: Coleoptera; Staphylinidae; Steninae; *Stenus*; *Hypostenus*; Japan.

In this paper, five new staphylinid species belonging to the subgenus *Hypostenus* are described all from Honshu based on PUTHZ and NAOMI collections, and their aedeagi except for *S. aoi* sp. nov. are illustrated for comparison.

*Stenus (Hypostenus) coiffaitiellus* NAOMI et PUTHZ, sp. nov.

(Fig. 1 A)

*Stenus rufescens*: HROMÁDKA, 1982, 131 (*falsus*).

*Male and female.* Body length: 2.7–3.5 mm (fore-parts: 1.5–1.6 mm).

Head black and very shining; pronotum brown to reddish brown, moderately shining; abdomen dark reddish brown; maxillary palpi and antennae reddish brown to yellowish brown; labrum reddish brown with yellowish brown anterior margin; legs reddish brown.

Body elongate and cylindrical.

Head shorter than (0.84: 1) and broader than (1.36: 1) pronotum, 1.61 times as broad as long, broadest at about posterior 1/3; labrum with sparse pubescence; clypeo-frontal area with sparse setae and fine punctures; interocular area with basiantennal

1) Studies on the subfamily Steninae from Japan, XXII (NAOMI).

2) Contribution to the knowledge of Steninae, 236 (PUTHZ).

tubercles distinct, forming short keels which are narrowed posteriorly, a pair of longitudinal depressions which are distinct, relatively deep, and convergent anteriorly, median part between the depressions elevated and almost triangular in form; punctuation moderately fine and moderately dense, distinct, round, irregular, diameter of punctures about as large as cross-section of 3rd antennal segment in its basal 5th, interstices sometimes narrower than, but often broader than, diameters of punctures, distinctly sculptured and very shining. Antennae when reflexed extending toward posterior 1/3 of pronotum, 8th segment a little smaller than 7th, 9th and 10th each elongate oval, with relative lengths of segments from base to apex as 10: 8: 15: 10: 8: 6: 6: 5: 6: 6: 9.

Pronotum about as long as and narrower than (0.87: 1) elytra, gently convex above, broadest at about the middle, constricted at base; surface almost even, with a median longitudinal furrow, which is very shallow and runs full length of pronotum except for anterior and posterior marginal areas; punctuation very dense, sparser at median part than at lateral parts, somewhat coarser than on head, almost regular and distinct, diameter of punctures about as large as widest cross-section of 3rd antennal segment, interstices smaller than half the diameter of punctures, very distinctly sculptured and shining.

Elytra broader than long (1.19: 1), moderately convex above, side margins much rounded, hind margins together forming a wide and arcuate emargination; surface almost even; punctuation slightly coarser than on pronotum, very dense and almost regular, interstices distinctly sculptured and moderately shining. Mesoscutellum minutely sculptured, with a few small punctures at posterior part.

Legs moderate in length; 4th tarsal segments distinctly and deeply bilobed.

Abdomen subparallel-sided or very weakly narrowed posteriorly; paratergites and tergosternal sutures absent; 3rd to 6th tergites each with a transverse depression; punctures on 3rd tergite dense, oval to round, distinct and somewhat different in size, the interstices distinctly sculptured and very shining, punctures becoming smaller and sparser posteriorly from 3rd to 8th tergites, punctures on 7th tergite elliptical, distinct and moderately dense, the interstices distinctly sculptured, about as broad as diameters of punctures.

*Male.* Eighth sternite with a small and shallow emargination in about posterior 1/25; 9th sternite with a pair of posterolateral projections, the projections moderately long and acutely pointed, posterior margin between the projections almost straight, four long setae at each base of the projection. Aedeagus (Fig. 1 A) with median lobe bulbous at base, moderately constricted at the middle, broadest at the apico-lateral corners which are gently rounded, then strongly narrowed toward a moderately pointed apex, apico-marginal sclerotized area relatively developed, but the apico-median part is weakly pigmented, internal armatures as in Fig. 1 A; parameres slender, extending far beyond the apico-median part of median lobe, very acutely pointed at apices, and sparsely set with long setae at apico-internal parts.

*Female.* Eighth sternite rounded at posterior margin, median area nearly in-

distinctly projected; spermatheca 2/3 as long as valvifer, consisting of a narrow tube which is strongly coiled in a longitudinal direction.

Holotype, male (PUTHZ collection), Shimajiriya, Ise, Mie Pref., 27-VII-1957, H. COIFFAIT coll. Paratypes, 2 males and 1 female, same data as holotype.

*Distribution.* Japan (Honshu).

*Remarks.* This new species was first reported by HROMÁDKA (1982) as *Stenus rufescens* SHARP, 1874, based on the same specimens cited above.

*Stenus coiffaitiellus* sp. nov. is allied to *S. toshiharui* NAOMI, 1990, but the median lobe of aedeagus is moderately constricted at the middle, and the apico-median sclerotized area is more developed, and the apico-median part is more strongly pointed. This new species is very similar in appearance of the aedeagus to *S. aoi* sp. nov., but the apico-median part of the median lobe is much more produced posteriorly and pointed; the former is also separable from the latter by the larger body, and the paler color of pronotum. The new species also resembles closely *S. (Parastenus) uneme* NAOMI, 1989 a, from which it is distinguished by the totally absent lateral margination of abdomen, different outline of the median lobe and totally different arrangement of the setae of the parameres.

*Etymology.* This species is named in honor of the late Dr. H. COIFFAIT, who is the collector of this new species, and whose treatises on the Staphylinidae are important basis for the systematics of the family.

***Stenus (Hypostenus) aoi* NAOMI et PUTHZ, sp. nov.**

*Stenus rufescens*: NAOMI, 1989 a, 1 (*falsus*).

*Male.* Body length: 2.3–2.6 mm (fore-parts: 1.4–1.5 mm).

Head black and shining, with dark reddish brown clypeo-frontal area; pronotum and abdomen dark reddish brown to brown, shining; elytra reddish brown to yellowish brown, moderately shining; maxillary palpi and antennae pale yellow; labrum reddish brown; legs reddish brown to yellowish brown.

Body small and very cylindrical.

Head shorter than (0.82: 1) and broader than (1.35: 1) pronotum, 1.70 times as broad as long, broadest at about posterior 1/3; labrum very sparsely pubescent; clypeo-frontal area with sparse setae and punctures; interocular area with small basi-antennal tubercles, a pair of longitudinal depressions which are relatively shallow and broad, median part between the depressions broadly elevated; punctures round, distinct, regular, dense and somewhat umbilicate, diameter of punctures about as large as cross-section of 4th antennal segment, interstices often slightly larger than half the diameter of punctures, distinctly sculptured and very shining, neck area with very sparse and fine punctures. Antennae slender, reaching posterior 1/3 of pronotum, 3rd to 8th segments thin, 9th to 11th forming a loose club, with relative lengths of segments from base to apex as 10: 8: 16: 10: 9: 6: 5: 4: 5: 6: 10.

Pronotum shorter than (0.94: 1) and narrower than (0.81: 1) elytra, well convex

above, broadest a little before the middle, constricted at base; surface almost even, with an elongate longitudinal depression near center; punctures very dense, round to elliptical, and slightly rough, somewhat coarser than on head, interstices very indistinctly sculptured and shining. Mesoscutellum with a few small punctures.

Elytra broader than long (1.19: 1), well convex above, side margins much rounded, hind margins together forming a very shallow emargination; surface even, with sutural area slightly elevated; punctures very dense, slightly larger than those on pronotum, round to elliptical, diameter of punctures nearly as large as apical cross-section of 2nd antennal segment, interstices very indistinctly sculptured and shining.

Legs moderate in length; femora more or less thick.

Abdomen without paratergites and tergosternal sutures; transverse depression on each tergite relatively shallow; punctures on 3rd tergite round, moderate in size, distinct, regular and dense, each with a short seta, the interstices indistinctly sculptured and shining; 8th sternite with a broad and shallow emargination in about posterior 1/37; 9th sternite with a pair of postero-lateral projections, the projections acutely pointed and moderate in length, posterior margin between the projections straight and very minutely serrate, some long setae at each base of the projection. Aedeagus as in fig. 1 A (NAOMI, 1989 a, p. 5).

*Female.* Unknown.

Holotype, male (Type No., CBM-ZI 52413), Masudani, Imajô, Fukui Pref., 28-XI-1982, H. SASAJI coll.

*Distribution.* Japan (Honshu).

*Remarks.* *Stenus aoi* sp. nov. was first recorded as *S. rufescens* SHARP, 1874, in NAOMI (1989 a), but this is clearly separable from the latter by the broader apical part of aedeagus.

This new species is allied to *S. coiffaitiellus* sp. nov., but the body is smaller and more convex, and the pronotum is dark reddish brown to brown. General shapes of their aedeagi are very similar to each other, but *S. aoi* is separable from *S. coiffaitiellus* by the following points: the median lobe is almost truncate, with a very minutely pointed projection at the middle, and the apical sclerotized area is less developed.

*Etymology.* The specific name is derived from the Japanese noun *aoi*, which is a name of ancient Japanese crest.

***Stenus (Hypostenus) maiko* NAOMI et PUTHZ, sp. nov.**

(Fig. 1 B)

*Male.* Body length: 2.0–2.5 mm (fore-parts: 1.3 mm).

Head and abdomen dark yellowish brown through brown to yellowish brown; pronotum and elytra yellowish brown; maxillary palpi, labrum, antennae and legs yellowish brown to pale yellow in the somewhat immature type specimen.

Body small, cylindrical, and somewhat robust.

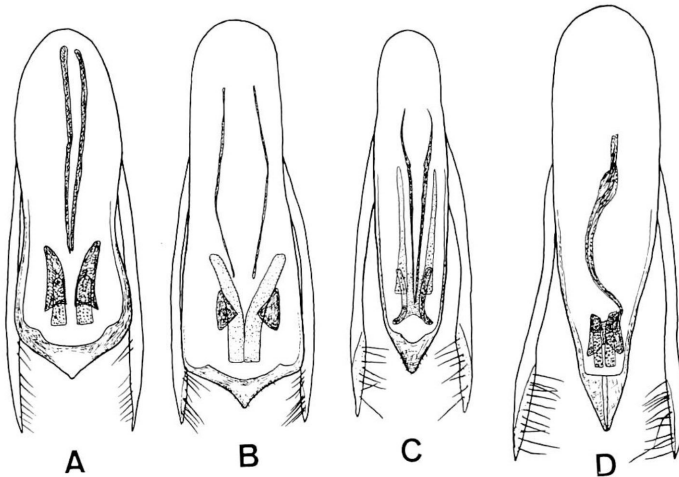


Fig. 1. A, *Stenus coffaitiellus* sp. nov.; B, *S. maiko* sp. nov.; C, *S. kagura* sp. nov.; D, *S. daigonis* sp. nov. A–D, Aedeagi in ventral view.

Head shorter than (0.87: 1) and broader than (1.32: 1) pronotum, 1.67 times as broad as long, broadest at about posterior 1/3; labrum with sparse hairs; clypeo-frontal area with sparse punctures and pubescence; interocular area with basiantennal tubercles distinct and a short distinct sulcus at the internal side of each tubercle, a pair of longitudinal depressions which are deep and broad, median part between the depressions weakly elevated, with median longitudinal impunctate area; punctation moderately coarse, distinct, moderately dense, regular and somewhat umbilicate, diameter of punctures about as large as median diameter of 3rd antennal segment, interstices with faint ground sculpture, shining, neck with sparse punctures. Antennae reaching a little before posterior margin of pronotum, 2nd segment broad and constricted at base, 8th smallest, fusiform, 9th and 10th each elongate oval, with relative lengths of segments from base to apex as 10: 7: 15: 9: 8: 7: 6: 4: 5: 6: 8.

Pronotum short and robust, shorter than (0.94: 1) and narrower than (0.92: 1) elytra, well convex above, broadest a little before the middle, constricted at base; surface weakly uneven, with a vague and shallow longitudinal furrow at the middle; punctation very dense, rough and slightly coarser than on head, interstices indistinctly sculptured and shining. Mesoscutellum invisible in the specimen examined.

Elytra broader than long (1.12: 1), convex above, constricted at base, side margins much rounded, hind margins together forming a shallow V-shaped emargination; surface weakly uneven, with surtural area distinctly elevated; punctation moderately coarse and very dense, diameter of punctures well as large as widest cross-section of 3rd antennal segment, interstices very indistinctly sculptured and shining.

Legs with tibiae long; 4th tarsal segments deeply but narrowly bilobed.

Abdomen robust; 3rd to 6th segments each weakly constricted at base, with a

shallow transverse depression on the base of tergite, without paratergites and tergo-sternal sutures; 7th segment subparallel-sided, with distinct tergo-sternal suture; punctures on 3rd tergite round to elliptical, dense, distinct, the interstices indistinctly sculptured and shining, punctures becoming smaller posteriorly from 3rd to 7th tergites, but punctures on 3rd tergite are as dense as those on 7th tergite; 7th sternite with a shallow depression at postero-median part, and a very shallow and arcuate emargination at posterior margin; 8th sternite with a broad and shallow emargination in about posterior 1/15. Aedeagus (Fig. 1 B) with median lobe narrow at base, gradually broadened apically, broadest at apico-lateral corners, then abruptly narrowed to apico-median projection which is acutely pointed, apico-marginal sclerotized area moderately developed, with a pair of short and pointed internal projections, internal armatures as in Fig. 1 B; parameres slender and weakly curved internally, extending a little beyond the apex of apico-median projection, each with numerous long setae at apico-internal part.

*Female.* Unknown.

Holotype, male (PUTHZ collection), Mt. Ibuki, Shiga Pref, 1–XI–1973, K. SAWADA coll.

*Distribution.* Japan (Honshu).

*Remarks.* *Stenus maiko* sp. nov. is allied to *S. amma* NAOMI et NOMURA, 1990, but the median lobe of aedeagus is narrower at the base and broadest at the apico-lateral corners. This new species is similar in the general appearance of aedeagus to *S. okamotoi* NAOMI, 1989 a, and *S. himiko* NAOMI, 1989 a, but is separable from *S. okamotoi* by the smaller body, the broader median lobe of aedeagus, and the slenderer parameres, and from *S. himiko* by the coarser abdominal punctation, the shallower microsculpture on the fore parts, the apico-marginal sclerotized area of the median lobe more developed, the apical tip more acute, and the parameres distinctly extending beyond the median lobe.

*Etymology.* The specific name is derived from the Japanese noun maiko, which means a dancer of Kabuki, a classic Japanese play.

***Stenus (Hypostenus) kagura* NAOMI et PUTHZ, sp. nov.**

(Fig. 1 C)

*Male and female.* Body length: 2.9–3.7 mm (fore-parts: 1.6–1.7 mm).

Head black and moderately shining, with dark red clypeo-frontal area; pronotum and elytra brown to reddish brown, shining; abdomen dark reddish brown to dark red, shining; maxillary palpi, antennae and legs pale brownish yellow to reddish yellow.

Body cylindrical and slender.

Head shorter than (0.82: 1) and broader than (1.36: 1) pronotum, 1.67 times as broad as long, broadest at about posterior 1/3; labrum with sparse pubescence; clypeo-frontal area with sparse pubescence and punctures; interocular area with basi-

antennal tubercles distinct, and distinct short sulcus at the internal side of each tubercle, a pair of longitudinal depressions which are distinct and convergent anteriorly, median part between the depressions elongate triangular in shape and moderately elevated; punctation moderately fine and moderately dense, distinct, regular and somewhat umbilicate, diameter of punctures about as large as basal cross-section of 3rd antennal segment, interstices often as wide as or nearly as wide as diameter of punctures, distinctly sculptured and shining. Antennae reaching posterior 1/4 of pronotum, 3rd to 7th segments thin, 8th much longer than broad, 9th and 10th each almost elongate oval, with relative lengths of segments from base to apex as 10: 7: 14: 9: 8: 7: 6: 5: 6: 6: 8.

Pronotum about as long as and narrower than (0.85: 1) elytra, convex above, broadest a little before the middle, constricted at base; surface very weakly uneven, with a distinct and moderately narrow longitudinal median furrow, some more impressions at lateral sides; punctation moderately coarse, very dense, but not confluent, diameter of punctures nearly as large as apical cross-section of 2nd antennal segment, interstices moderately shining because of distinct reticulation. Mesoscutellum with a few small punctures.

Elytra broader than long (1.18: 1), convex above, side margins much rounded, hind margins together forming an arcuate and shallow emargination; surface even; punctation slightly coarser than on pronotum, very dense, almost round, distinct, rough and regular, interstices indistinctly sculptured and shining.

Legs moderate in length; 4th tarsal segments deeply but narrowly bilobed.

Abdomen without paratergites and tergosternal sutures; 3rd to 6th segments each with a transverse depression; punctures on 3rd tergite composed of different sizes, dense, round and distinct, the interstices indistinctly sculptured and shining, punctures becoming smaller and sparser posteriorly from 3rd to 8th tergites, punctures on 8th tergite very sparse and fine.

*Male.* Abdomen gradually narrowed posteriorly; 8th sternite with a broad and very shallow emargination in about posterior 1/20; 9th sternite with a pair of pointed postero-lateral projections, some setae at each base of the projection, posterior margin between the projections very weakly arcuate and serrate. Aedeagus (Fig. 1 C) with median lobe slender, narrow and moderately narrowly rounded at apex, apical sclerotized area developed, with its internal margin arcuately emarginate, internal armatures as in Fig. 1 C; parameres somewhat robust, extending much beyond the apex of median lobe, each with 8 setae at apico-internal part.

*Female.* Abdomen subparallel-sided, 8th sternite rounded, distinctly but slightly projected in the postero-median part; spermatheca consisting of a complex of crowded tube, which is about 3/4 as long as the valvifer, the strongly sclerotized distal piece with its length being about 1/4 of the valvifer.

Holotype, male (PUTHZ collection), Mitsuishi, Okayama Pref., 21-V-1973, K. SAWADA coll. Paratypes, 1 male and 1 female, same data as holotype.

*Distribution.* Japan (Honshu).

*Remarks.* *Stenus kagura* sp. nov. is allied to *S. rufescens* SHARP, 1874, but the

head is black, and the aedeagus is narrower. This new species is also allied to *S. jukata* HRMÁDKA, 1982, but the body is larger, and the median lobe of aedeagus is broader in apical half.

*Etymology.* The specific name is derived from the Japanese noun *kagura* which means a court dance and music of Japan.

*Stenus (Hypostenus) daigonis* NAOMI et PUTHZ, sp. nov.

(Fig. 1 D)

*Male and (teneral) female.* Body length: 2.8–3.7 mm (fore-parts: 1.6–1.7 mm).

Body pale yellowish brown to yellow and moderately shining, but the abdomen is a little more reddish than the anterior part of body.

Body slender and cylindrical.

Head shorter than (0.77: 1) and broader than (1.29: 1) pronotum, 1.67 times as broad as long, broadest at about posterior 1/3; labrum with hairs of moderate length, clypeo-frontal area with sparse punctures and setae; interocular area with basiantennal tubercles distinct, a pair of longitudinal depressions which are relatively deep, distinct and broad, median area between the depressions elongate triangular in shape, moderately elevated; punctation moderately fine and moderately dense, somewhat umbilicate, diameter of punctures about as large as median cross-section of 3rd antennal segment, interstices mostly somewhat larger than half the diameter of punctures, sometimes becoming larger on elevated median part than on bottoms of depressions, moderately sculptured and shining. Antennae when reflexed extending to about posterior margin of pronotum, 3rd to 7th segments thin, 8th smallest, but much longer than broad, 9th to 10th each oval, 11th pointed, with relative lengths of segments from base to apex as 10: 8: 18: 10: 9: 7: 6: 5: 6: 7: 9.

Pronotum a little shorter than (0.95: 1) and narrower than (0.83: 1) elytra, gently convex above, broadest a little before the middle, constricted at base; surface almost even, with a distinct median longitudinal depression, which is about 2/3 times as long as pronotum, some more depressions at lateral sides; punctation moderately coarse, very dense, a little rough, diameter of punctures larger than widest cross-section of 3rd antennal segment but narrower than apical across-section of 2nd antennal segment, interstices deeply sculptured and moderately shining. Mesoscutellum almost invisible in the specimens examined.

Elytra broader than long (1.14: 1), moderately convex above, side margins weakly rounded (or weakly divergent posteriorly), hind margins together forming a shallow and V-shaped emargination; surface even; punctation slightly coarser than on pronotum, very dense, almost round and regular, interstices distinctly sculptured and shining.

Legs moderate in length; 4th tarsal segments distinctly and deeply bilobed.

Abdomen without paratergites and tergo-sternal sutures in 3rd to 6th segments; transverse depression shallow in each tergite; punctures on 3rd tergite elliptical, dis-



tinct, dense and regular, interstices sculptured and very shining, punctures becoming sparser and smaller posteriorly from 3rd to 8th tergites; punctures on 8th tergite fine and sparse, interstices broader than diameters of punctures.

*Male.* Abdomen subparallel-sided; 4th sternite very shallowly impressed in postero-median part; 5th sternite broadly and shallowly impressed in postero-median part; 6th sternite with a distinct, horseshoe-like impression in postero-median part, which is very finely and densely punctured and pubescent; 7th sternite with a deep and broad longitudinal impression at the middle, of which the posterior sides are more or less sharply elevated and slightly prominent posteriorly, posterior margin broadly emarginate, punctation on impression very fine and dense; 8th sternite with a moderately broad and rounded apical notch in about posterior 1/13; 9th sternite with a pair of pointed postero-lateral projections and a few long setae at each base of the projection, posterior margin between the projections arcuately emarginate and minutely serrate. Aedeagus (Fig. 1 D) slender, weakly bulbous at base, narrowed into a very narrowly rounded apex, without apico-lateral corners, apical sclerotized area triangular in shape, internal armatures as in Fig. 1 D; parameres extending much beyond apex of median lobe, somewhat thick at apices, with numerous long setae at apico-internal parts.

*Female.* Abdomen broader than in male; 8th sternite rounded at posterior margin, with an almost indistinct apico-marginal tip.

Holotype, male (PUTHZ collection), Daigo, Kyoto-fu, 21-V-1973, K. SAWADA coll. Paratype, 1 female, same data as holotype.

*Distribution.* Japan (Honshu).

*Remarks.* *Stenus daigonis* sp. nov. is allied to *S. jukata* HROMÁDKA, 1982, but the head is paler (yellow) in color, and the median lobe of aedeagus is broader, especially in the apical part. This new species is also allied to *S. akome* NAOMI, 1989 b, but the head is paler (yellow) in color, the median lobe of aedeagus is narrower in the apical half, its expulsion-hooks are simple distally, and the parameres are shorter and more slender at apices (not spoon-shaped).

The spermatheca is not described here, since dissection of the somewhat immature specimen did not lead to exact result.

*Etymology.* The specific name is derived from Daigo, the type locality of this new species.

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### 要 約

直海俊一郎・フォルケール プッツ: 日本産メダカハネカクシ属 *Hypostenus* 亜属の 5 新種の記

載。——本論文において、*Hypostenus* 亜属に属する以下のメダカハネカクシ 5 新種を、本州から新種として記載した。

*Stenus coiffaitiellus* NAOMI et PUTHZ は三重県から発見された種で、*S. toshiharui* に似ているが、雄交尾器の中央片は中央部でおだやかにくびれ、その先端部にある硬化部はより尖ることで区別がつく。*Stenus aoi* NAOMI et PUTHZ は福井県から発見された種で、*S. coiffaitiellus* に似ているが、体がより小さくより凸型で、前胸背板が黒みをおびた赤褐色であることで区別がつく。*Stenus maiko* NAOMI et PUTHZ は滋賀県から発見された種で、*S. amma* NAOMI et NOMURA に似ているが、雄交尾器の中央片は基部がより狭く、先端側部の角ばった部分でもっとも幅広くなる点で区別がつく。*Stenus kagura* NAOMI et PUTHZ は岡山県から発見された種で、*S. rufescens* SHARP に似ているが、頭部が黒色で、雄交尾器がより細いことで区別がつく。*Stenus daigonis* は京都の醍醐から発見された種で、*S. jukata* HROMÁDKA に似ているが、頭部が黄色く、雄交尾器の中央片がとくに先端部でより幅広い。

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