

Studies on the Subfamily Steninae (Coleoptera,
Oxyporidae) from Japan

XIV. Subgenus *Hypostenus* of the Genus *Stenus* LATREILLE, Part 6¹⁾

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Abstract The *Stenus keman*, *micuba* and *jambar* groups of the subgenus *Hypostenus* are dealt with. Five new species, *S. keman*, *S. toshiharui*, *S. otohime*, *S. kaguyahime* and *S. jambar* are described and their male genitalia are figured.

9. Group of *S. keman*

This group is composed of two new species, *Stenus keman* and *S. toshiharui*, and is distributed in Honshu (Chûbu District) and Kyushu.

The diagnosis of the *keman* group is as follows: 1) head entirely black, 2) 6th sternum evenly convex, and 7th sternum convex or with a small flat area at postero-median part in male; 3) median lobe of male genitalia broad even in apical half, its apical margin rounded with or without a minute median projection; parameres extending far beyond apex of median lobe and slender.

Stenus keman sp. nov.

(Fig. 1 B)

Male and female. Body length: 3.6–4.1 mm.

Head and abdomen black; pronotum and elytra dark red to dark reddish brown; labrum, antennae, maxillary palpi and legs red to dark reddish brown.

Head broader than elytra (1.12: 1), 1.65 times as broad as long, frontoclypeal area with regular and moderate punctures and fine pubescence, interocular area with a pair of depressions, the depressions longitudinal and shallow, median part between the depressions weakly convex; punctures almost regular, round and dense, interstices between punctures distinctly sculptured. Antennae reaching posterior 4/5 of pronotum, 8th segment a little broader than 7th, distinctly narrower than 9th, 9th to 11th forming a loose club, with relative lengths of segments from base to apex as 10: 10: 20: 12: 11: 8: 8: 5: 7: 8: 9.

1) Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 3, No. 287).

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Pronotum shorter than elytra (0.94: 1), a little longer than broad (1.05: 1), broadest at anterior 1/3, and moderately constricted at base, side margins more weakly rounded than those in the *amida* group; disk slightly uneven, with a median longitudinal depression, the depression 0.75 times to almost as long as pronotum; punctures very dense, rough and round, interstices between punctures distinctly sculptured.

Elytra broader than long (1.07: 1), strongly constricted at base, side margins much rounded, hind margins together forming a moderately deep and V-shaped emargination; disk slightly uneven, with punctures very dense and large. Hind wings reduced, 0.43 times as long as elytra.

Legs moderate in length, hind tarsi 0.66 times as long as hind tibiae.

Abdomen with punctures round, regular and moderate in size, interstices between punctures finely sculptured on 3rd tergum, punctures becoming gradually smaller and sparser posteriorly from 3rd to 8th terga.

Male. Seventh sternum with a small flat area at posteromedian part; 8th sternum with a moderate V-shaped emargination at posterior margin; 9th sternum with a moderately deep and U-shaped emargination at posterior margin, apicolateral projections acutely pointed. Genitalia (Fig. 1 B) with median lobe broad, gently rounded at apical margin; parameres extending far beyond apex of median lobe, each slender, pointed at apex, with sparse hairs on internal surface behind the middle.

Female. Eighth sternum almost entire in posterior margin.

Holotype, male (Type No. 2690, Kyushu Univ.), Nishihotakaguchi, Gifu Pref., 11-VI-1980, S. NAOMI leg. Paratypes, 9 exs., same data as for holotype; 3 exs., Shinhotaka-Onsen, Gifu Pref., 10~12-VI-1980, S. NAOMI leg.

Distribution. Japan (Honshu: Chûbu District).

Remarks. This new species is allied to *S. toshiharui* sp. nov., but the interstices between punctures on the interocular area are distinctly sculptured and the median lobe of the male genitalia is gently rounded at the apical margin.

Stenus toshiharui sp. nov.

(Fig. 1 C)

Male and female. Body length: 2.9–3.3 mm.

Head black; pronotum, elytra and abdomen reddish brown to dark brown, 7th to 9th abdominal segments dark brown to black; labrum, antennae, maxillary palpi and legs reddish brown to brown.

Head broader than elytra (1.16: 1), 1.69 times as broad as long, frontoclypeal area with sparse punctures and pubescence, interocular area with a pair of depressions, the depressions longitudinal, broad and shallow, median part between the depressions gently convex; punctures moderate in size, round, almost regular, and a little smaller on the middle than near inner margins of eyes, interstices between punctures indistinctly sculptured. Antennae reaching posterior 3/4 of pronotum, 1st and 2nd segments robust, distinctly broader than 3rd, 8th to 9th each elongate oval, with relative

lengths of segments from base to apex as 10: 10: 16: 9: 8: 6: 5: 4: 6: 7: 8.

Pronotum about as long as elytra, as long as broad, broadest at anterior $2/5$, and constricted at base, side margins much rounded in anterior $3/4$; disk slightly uneven, with a median longitudinal depression, the depression deeper and/or broader than that in *S. keman* sp. nov., 0.75 times to almost as long as pronotum; punctures very dense, round and almost regular, interstices between punctures indistinctly sculptured.

Elytra broader than long (1.16: 1), moderately constricted at base, side margins rounded, hind margins together forming a shallow V-shaped emargination; disk slightly uneven, with punctures similar to those on pronotum. Hind wings completely atrophied.

Legs moderate in length, hind tarsi 0.68 times as long as hind tibiae.

Abdomen slender, with punctures round and a little larger at base than near posterior margin on 3rd tergum, punctures becoming gradually smaller posteriorly from 3rd to 8th terga.

Male. Eighth sternum with a shallow and wide emargination at posterior margin; 9th sternum with an arcuate emargination at posterior margin, apicolateral projections acutely pointed. Genitalia (Fig. 1 C) with median lobe elongate oval, gently rounded with a minute median projection at apical margin; parameres extending far beyond apex of median lobe, slender, with sparse hairs on apico-internal parts.

Female. Eighth sternum entire at posterior margin.

Holotype, male (Type No. 2691, Kyushu Univ.), Mt. Tsubaki, Saga Pref., 2-X-1977, H. OHISHI leg. Paratypes, 5 exs., Amagi Pass, Izu Peninsula, Shizuoka Pref., 23-VII-1982, S. NAOMI leg.; 30 exs., same data as for holotype; 3 exs., Ikenohara Marsh, Saga Pref., 9-IX-1976, H. OHISHI leg.; 1 ex., Mt. Mifune, Saga Pref., 15-III-1980, S. NOMURA leg.; 1 ex., same locality, 11-III-1981, S. NOMURA leg.; 1 ex., same locality, 27-V-1984, S. NOMURA leg.

Distribution. Japan (Honshu: Chûbu District; Kyushu).

Remarks. This new species is allied to *S. keman* sp. nov., but the interstices between the punctures on the interocular area are indistinctly sculptured and the median lobe of the male genitalia is gently rounded with a minute median projection at the apical margin.

This species is named in honor of Prof. T. YOSHIDA of Okayama University.

10. Group of *S. micuba*

This group is composed of 3 species, *Stenus micuba* HROMÁDKA, *S. otohime* sp. nov. and *S. kaguyahime* sp. nov. and is distributed in Honshu (Chûgoku District) and Kyushu in Japan and also in China (Chinkiang).

The diagnosis of the *micuba* group is as follows: 1) head entirely black; 2) 6th and 7th sterna each evenly convex transversely; and 3) median lobe of male genitalia narrowed apically in various degrees, obtusely or acutely pointed at apex; parameres extending far beyond apex of median lobe, slender, with short hairs on apico-internal

parts.

Stenus micuba HROMÁDKA

(Fig. 1 F)

Stenus micuba HROMÁDKA, 1982, *Fragm. coleopt.*, (33/34): 134.

Specimens examined. 1 ex., Nikyukyô, Hiroshima Pref., 7-VIII-1986, I. OKAMOTO leg.; 1 ex., same locality, 5-IV-1981, I. OKAMOTO leg.; 1 ex., Kobaru-chô, Hiroshima Pref., 18-IX-1986, I. OKAMOTO leg.; 2 exs., Haigamine, Hiroshima Pref., 12-IV-1986, I. OKAMOTO leg.; 1 ex., same locality, 24-V-1986, I. OKAMOTO leg.; 1 ex., same locality, 22-VI-1986, I. OKAMOTO leg.; 1 ex., same locality, 11-IV-1987, I. OKAMOTO leg.; 1 ex., Houei-chô, Hiroshima Pref., 8-VI-1986, I. OKAMOTO leg.; 3 exs., same locality, 4-VII-1986, I. OKAMOTO leg.; 2 exs., Mt. Tara, Nagasaki Pref., 28-II-1978, S. IMASAKA leg.; 1 ex., same locality, 31-V-1978, S. IMASAKA leg.; 1 ex., same locality, 4-VI-1980, S. IMASAKA leg.; 2 exs., same locality, 13-IV-1982, S. IMASAKA leg.; 3 exs., Nomozaki, Nagasaki Pref., 18-XII-1977, S. IMASAKA leg.; 2 exs., same locality, 6-III-1978, S. IMASAKA leg.; 1 ex., Ohmura, Nagasaki Pref., 26-XII-1981, S. IMASAKA leg.; 1 ex., Iwaseto Valley, Nagasaki Pref., 22-II-1978, S. IMASAKA leg.; 1 ex., Mt. Unzen, Nagasaki Pref., 3-VII-1977, H. OHISHI leg.; 1 ex., same locality, 3-IV-1979, S. IMASAKA leg.; 2 exs., same locality, 27-IX-1977, S. IMASAKA leg.; 1 ex., same locality, 17-VIII-1983, S. IMASAKA leg.; 3 exs., Todoroki Valley, Nagasaki Pref., 11-II-1985, S. NOMURA leg.; 8 exs., Nakadôri Is., Gotô Isls., Nagasaki Pref., 16-VIII-1977, H. OHISHI leg.; 1 ex., Tsushima Is., Nagasaki Pref., 27-V-1970, H. MAKIHARA leg.; 3 exs., Kakiyara, Saga Pref., 10-XI-1976, H. OHISHI leg.

Distribution. Japan (Honshu: Chûgoku District, Kyushu, Gotô Isls., Tsushima Is.); China.

Stenus otohime sp. nov.

(Fig. 1 E)

Male and female. Body length: 3.3–3.4 mm.

Body entirely black and moderately shiny; labrum dark reddish brown to black, with anterior margin reddish yellow; antennae, maxillary palpi and legs pale yellow to yellowish red.

Head broader than elytra (1.15: 1), 1.77 times as broad as long, frontoclypeal area sparsely punctate, with interstices between punctures finely sculptured, interocular area with a pair of depressions, the depressions longitudinal, shallow and broad, median part between the depressions elongate oval and weakly convex; punctures moderate in size, round, and a little smaller on the middle than near inner margins of eyes, interstices between punctures indistinctly sculptured. Eyes more convex

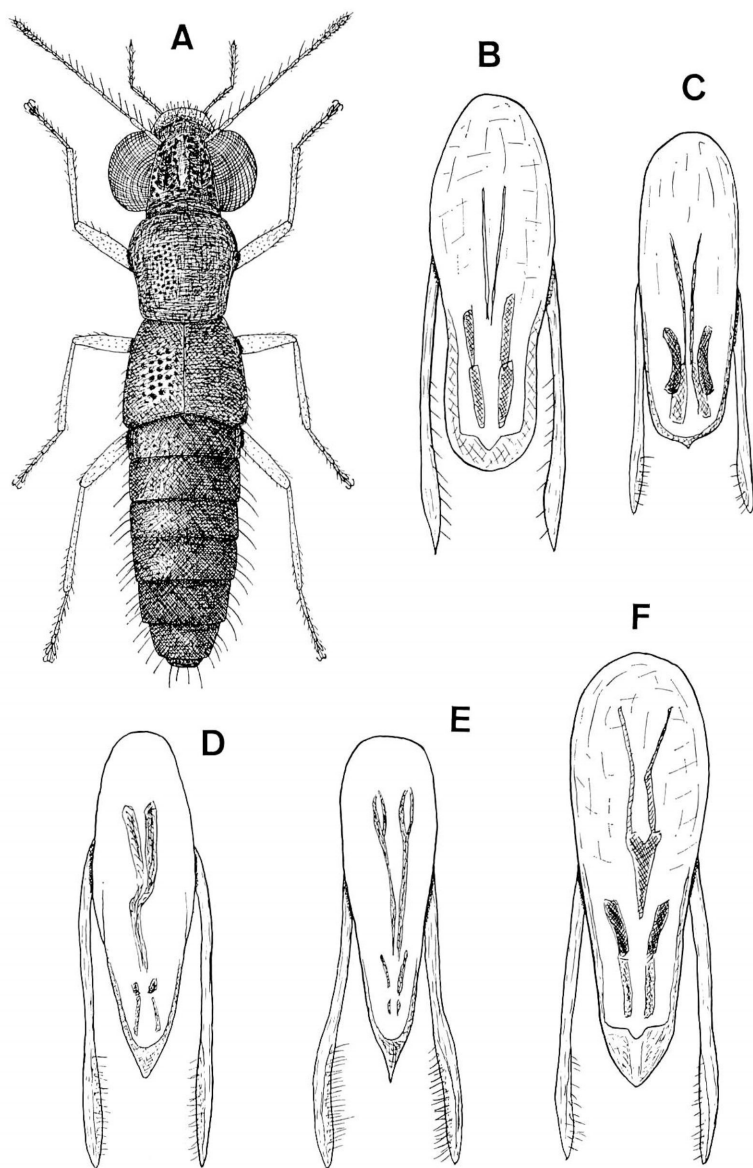


Fig. 1. — A, *Stenus jambar* sp. nov.; B, *S. keman* sp. nov.; C, *S. toshiharui* sp. nov.; D, *S. kaguyahime* sp. nov.; E, *S. otohime* sp. nov.; F, *S. micuba* HROMÁDKA. A, Habitus; B–F, male genitalia in dorsal view.

than those in *S. micuba* HROMÁDKA. Antennae reaching posterior 3/4 of pronotum, 3rd to 8th segments subequal in length to one another, 9th to 11th forming a loose club, with relative lengths of segments from base to apex as 10:9:18:10:10:7:7:

4: 6: 7: 9.

Pronotum about as long as elytra, as long as broad, broadest at anterior 1/5, well convex above, and distinctly constricted at base, side margins much rounded in anterior 3/4; disk almost smooth or slightly uneven, with a median longitudinal depression, the depression about 0.75 times as long as pronotum; punctures very dense, round and almost regular, interstices between punctures distinctly sculptured.

Elytra broader than long (1.21: 1), distinctly constricted at base, side margins gently rounded, hind margins together forming a wide and shallow emargination; disk slightly uneven, with punctures very dense, round and a little larger than those on pronotum. Hind wings reduced, 0.59 times as long as elytra.

Legs elongate, hind tarsi 0.73 times as long as hind tibiae.

Abdomen robust, with punctures round, rather rough, a little larger at base than near posterior margin, and interstices between punctures indistinctly sculptured on 3rd tergum, punctures becoming gradually smaller and sparser posteriorly from 3rd to 8th terga.

Male. Eighth sternum with a very shallow and wide emargination at posterior margin; 9th sternum with an arcuate emargination at posterior margin, apicolateral projections acutely pointed. Genitalia (Fig. 1 E) with median lobe elongate, gradually narrowed apically, and acutely pointed at apex; parameres extending far beyond apex of median lobe, slightly swollen in apical 2/5, with dense hairs on apico-internal parts.

Female. Eighth sternum entire at posterior margin.

Holotype, male (Type No. 2692, Kyushu Univ.), Mt. Seira, Imari City, Saga Pref., 28-V-1984, S. NOMURA leg. Paratypes, 3 exs., same data as for holotype; 1 ex., Imari City, Saga Pref., 29-VII-1976, H. OHISHI leg.

Distribution. Japan (Kyushu).

Remarks. This new species is closely allied to *S. kaguyahime* sp. nov., but the eyes are more convex and the punctures on the interocular area are sparser, and the median lobe of the male genitalia is more acutely pointed at the apex.

Stenus kaguyahime sp. nov.

(Fig. 1 D)

Male and female. Body length: 3.5–4.0 mm.

Body entirely black, moderately to weakly shiny; labrum dark red to black, with anterior margin reddish brown; antennae, maxillary palpi and legs reddish brown to dark brown.

Head broader than elytra (1.09: 1), 1.71 times as broad as long, frontoclypeal area sparsely punctate, with minute and distinct sculpture, interocular area with a pair of depressions, the depressions longitudinal, very shallow and convergent anteriorly, median part between the depressions weakly convex; punctures almost regular, round and a little smaller on the middle than near inner margins of eyes, interstices between

punctures indistinctly sculptured. Antennae reaching posterior 3/4 of pronotum, 8th segment the smallest, 9th to 10th each elongate oval, with relative lengths of segments from base to apex as 10: 10: 21: 10: 10: 8: 8: 5: 6: 8: 10.

Pronotum a little shorter than elytra (0.93: 1), about as long as broad, broadest near the middle, moderately constricted at base, side margins rounded in anterior 2/3; disk slightly uneven, with a median longitudinal depression, the depression indistinct, 1/3 to 2/3 times as long as pronotum; punctures very dense, moderate in size, round and almost regular, interstices between punctures indistinctly sculptured.

Elytra broader than long (1.17: 1), weakly constricted at base, side margins gently rounded, hind margins together forming a wide and arcuate emargination; disk almost even, with punctures round to elliptical, very dense, large and distinct. Hind wings atrophied into small pieces, 0.22 times as long as elytra.

Legs moderate in length, hind tarsi 0.67 times as long as hind tibiae.

Abdomen broad and robust; punctures round, uniform, moderate in density, and interstices between punctures indistinctly sculptured on 3rd tergum, punctures becoming gradually smaller and sparser posteriorly from 3rd to 8th terga; pubescence sparse, short and decumbent.

Male. Eighth sternum with a shallow emargination at posterior margin; 9th sternum with an arcuate emargination at posterior margin, apicolateral projections acutely pointed. Genitalia (Fig. 1 D) with median lobe broadest near the middle, and pointed at apex; parameres extending far beyond apex of median lobe, slender and almost straight, with short hairs on apico-internal parts.

Female. Eighth sternum almost entire at posterior margin.

Holotype, male (Type No. 2693, Kyushu Univ.), Mt. Seburi, Saga Pref., 18-IX-1977, H. OHISHI leg. Paratypes, 14 exs., same data as for holotype.

Distribution. Japan (Kyushu).

Remarks. This new species is closely allied to *Stenus otohime* sp. nov., but the eyes are less strongly convex, and the punctures on the interocular area are denser. In addition, the median lobe of the male genitalia is broader and less acutely pointed at the apex.

11. Group of *S. jambar*

This group is composed only of *Stenus jambar* sp. nov., which is restricted at present to Okinawa-hontô Is., the Ryukyus.

Although the male of *S. jambar* is unknown to me, this species is immediately distinguished from the other species of the *S. rufescens* complex by the following characters: 1) head entirely black, with very large and convex eyes; 2) antennae very slender, extending a little beyond hind margin of pronotum; and 3) abdomen sparsely punctate and very shiny, with long and suberect hairs. This species is, without doubt, distinct and rather different from the other 10 groups in the *rufescens* complex, judging from the 3rd character mentioned above.

Stenus jambar sp. nov.

(Fig. 1 A)

Female. Body length: 3.5 mm.

Head and abdomen black and very shiny; pronotum and elytra dark reddish brown and shiny; labrum reddish brown in basal half, pale yellowish red in broad area along anterior margin; antennae, maxillary palpi and legs pale yellow to yellow.

Head broader than elytra (1.21: 1), 1.44 times as broad as long, frontoclypeal area sparsely punctate and pubescent, interocular area distinctly concave, with a pair of depressions, the depressions longitudinal and gradually convergent anteriorly, median part between the depressions weakly convex, narrow, smooth along the median line, and distinctly lower in level than eyes; punctures large and rough, each with a short hair, interstices between punctures very shiny and smooth. Eyes very large and strongly convex. Antennae very slender, extending a little beyond hind margin of pronotum, 9th to 11th segments forming a loose club, with relative lengths of segments from base to apex as 11: 10: 24: 13: 12: 10: 9: 6: 7: 8: 12.

Pronotum about as long as elytra, as long as broad, broadest at anterior 1/3, and distinctly constricted at base, side margins gently rounded in anterior 2/3; disk almost even, with a median longitudinal depression in basal half; punctures dense, uniform and round, interstices between punctures smooth and shiny.

Elytra broader than long (1.13: 1), distinctly constricted at base, side margins gently divergent posteriorly, hind margins together forming a wide and shallow emargination; disk almost even, with punctures very large, rough and indistinct. Hind wings reduced.

Legs elongate, hind tarsi 0.65 times as long as hind tibiae.

Abdomen large and stout, paratergites very narrow in 3rd segment; punctures sparse and small on 3rd to 8th terga, each with a long and suberect hair, interstices between punctures smooth and shiny; 8th sternum entire at posterior margin.

Holotype, female (Type No. 2694, Kyushu Univ.), Ie-Rindô, Kunigami, Okinawa-hontô Is., Okinawa Pref., 14-III-1985, S. NOMURA leg.

Distribution. Japan (Okinawa-hontô Is.).

Remarks. This new species is easily separable from the other hypostenine species by the diagnostic characters of the *jambar* group.

Acknowledgements

I wish to express my sincere gratitude to Prof. Y. HIRASHIMA and Assoc. Prof. K. MORIMOTO of the Entomological Laboratory, Kyushu University, for their constant guidance. I am also indebted to Messrs. H. OHISHI (Kyoto City), I. OKAMOTO (Kure City), S. IMASAKA (Shimabara City), S. NOMURA (Kyushu University) and H. MAKIHARA (Forestry and Forest Products Research Institute) for their kind offer of valuable stenine specimens used in this paper.

要 約

直海俊一郎：日本産メダカハネカクシ亜科の研究. XIV. メダカハネカクシ属 *Hypostenus* 亜属, 6. — 本論文で *S. rufescens* 複合群のうち *keman* 種群, *micuba* 種群および *jambar* 種群を論じた。

keman 種群は *Stenus keman* および *S. toshiharui* の2新種から成り, 本州(中部地方)と九州に分布する。本種群は, 雄の腹部第7腹板の後方中央部が普通あるいは平滑で, 雄交尾器中央片は幅広く, 側片は長いという形質などで特徴づけられる。

micuba 種群は, *Stenus micuba* HROMÁDKA, *S. otohime* sp. nov. および *S. kaguyahime* sp. nov. から成り, 本州(中国地方), 九州および中国に分布する。本種群は, 雄の腹部第6, 7腹板上に二次性徴がなく, 雄交尾器中央片は先端に向かい細くなり, 先端部は尖り, 側片は非常に長いという形質などで特徴づけられる。

jambar 種群は *Stenus jambar* sp. nov. 1種だけから成り, 沖縄本島に分布している。現在まで本種の雌は知られていないが, 本種は *S. rufescens* 複合群のすべての種から, 頭部全体が黒く, 触角がひじょうに細く, 腹部は疎に点刻され光沢があり, 直立毛をそなえるという形質などで容易に区別できる。

Reference

- HROMÁDKA, L., 1982. Weitere neue *Stenus*-Arten von Japan (Coleoptera, Staphylinidae). *Fragm. coleopt.*, (33/34): 131–138.

Errata

In my paper on the comparative morphology of the Staphylinoida, IX (NAOMI, 1989, *Jpn. J. Ent.*, **57**: 519),

on line 11, for *Priochirus*, 1p: 0, st: 1–2, 3–7(0), 8 read *Priochirus*, 1p: 0, st: 1–8;

on lines 11–12, for *Osorius*, 1p: 0, st: 1–8 or 1, 2–7(0), 8 read *Osorius*, 1p: 0, st: 1–8;

on line 12, for *Megarthus*, 1p: 1, st: 1–8 read *Megarthus*, 1p: 1, st: 1–3, 4–6(0), 7–8.

During my visit to the Field Museum of Natural History, Chicago, in November, 1989, these errors concerning the formula of spiracles were pointed out by Dr. A. F. NEWTON, to whom I am much obliged.