

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

XII. Subgenus *Hypostenus* of the Genus *Stenus* LATREILLE, Part 4*

Shun-Ichiro NAOMI

Entomological Laboratory, Faculty of Agriculture,
Kyushu University, Fukuoka, 812 Japan

Abstract The *Stenus hijiri* group of the subgenus *Hypostenus* is dealt with. Five new species, *S. hijiri*, *S. syaca*, *S. carura*, *S. hirashimai* and *S. ryugu* are described and their male genitalia are figured.

5. Group of *S. hijiri*

This group is composed of five new species, *Stenus hijiri*, *S. syaca*, *S. carura*, *S. hirashimai* and *S. ryugu*, and is distributed in Honshu (Chûbu District), Shikoku, Kyushu and Tsushima Is. (Fig. 2).

The diagnosis of the *hijiri* group is as follows: 1) head entirely black as usual, sometimes frontoclypeal area reddish, 2) 6th sternum evenly convex or flat, and 7th sternum convex, flat or shallowly depressed at posteromedian part in male, and 3) male genitalia with median lobes variable in shape, but are pointed at apices in various degrees; parameres each with one or two tufts of short hairs behind the middle of internal margin.

Stenus hijiri sp. nov.

(Fig. 1A)

Male and female. Body length: 3.3–3.9 mm.

Head black and moderately shiny, with reddish frontoclypeal area; pronotum and elytra dark red to dark brown, weakly shiny; abdomen dark brown to black; labrum, antennae, maxillary palpi and legs red to reddish brown.

Head broader than elytra (1.08: 1), 1.73 times as broad as long, frontoclypeal area moderately punctate, with sparse and short pubescence, interocular area with a pair of depressions, the depressions longitudinal, shallow and convergent anteriorly, median part between the depressions gently convex; punctures round, sparser on the middle than near inner margins of eyes, interstices between punctures indistinctly sculptured. Antennae reaching posterior 5/6 of pronotum, 8th segment smallest,

* Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 3, No. 285).

9th to 10th each elongate oval, with relative lengths of segments from base to apex as 10: 10: 20: 12: 11: 9: 8: 6: 8: 9: 10.

Pronotum a little shorter than elytra (0.94: 1), about as long as broad, broadest near the middle, moderately constricted at base, side margins much rounded; disk uneven, with a median longitudinal depression, the depression about half times as long as pronotum, with its bottom covered only with microsculpture near the middle; punctures very dense, rough and subrugose, interstices between punctures very narrow.

Elytra broader than long (1.13: 1), weakly constricted at base, side margins gently rounded, hind margins together forming a moderate and V-shaped emargination; disk uneven on basal half, with punctures very dense, rough and irregular. Hind wings much atrophied, 0.19 times as long as elytra.

Legs moderate in length, femora relatively thick, hind tarsi 0.62 times as long as hind tibiae.

Abdomen robust, with punctures round, dense, distinct and regular on 3rd tergum, punctures gradually smaller posteriorly from 3rd to 8th terga; pubescence yellow to golden yellow, short and completely decumbent.

Male. Seventh sternum flat along the mid-line in full length; 8th sternum with a moderate and V-shaped emargination at posterior margin; 9th sternum depressed at posterior part, with an arcuate emargination at posterior margin, apicolateral projections acutely pointed. Genitalia (Fig. 1 A) with median lobe broadest at anterior 4/9, then narrowed both anteriorly and posteriorly, with a short and pointed projection at the middle of apical margin; parameres extending beyond apex of median lobe, weakly curved internally to apical 1/3, then curved externally and broadened apically, with truncate apices, internal side of paramere moderately angulate with a tuft of hairs at anterior 1/3, and with the other tuft near apical margin.

Female. Eighth sternum entire at posterior margin.

Holotype, male (Type No. 2680, Kyushu Univ.), Hirogawara, Mt. Shirane, Yamana-nashi Pref., 9~13-VII-1982, S. NAOMI leg. Paratypes, 34 exs., same data as holotype.

Distribution. Japan (Honshu: Chûbu District).

Remarks. This new species is allied to *S. carura* sp. nov., but the pronotum and elytra are subrugosely punctate, the 9th sternum is narrowly depressed at the posterior margin in the male, and the parameres of the male genitalia are curved.

Stenus syaca sp. nov.

(Fig. 1 D)

Male. Body length: 3.3 mm.

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

Head broader than elytra (1.16: 1), 1.56 times as broad as long, frontoclypeal area sparsely pubescent and punctate, interocular area with a pair of depressions, the

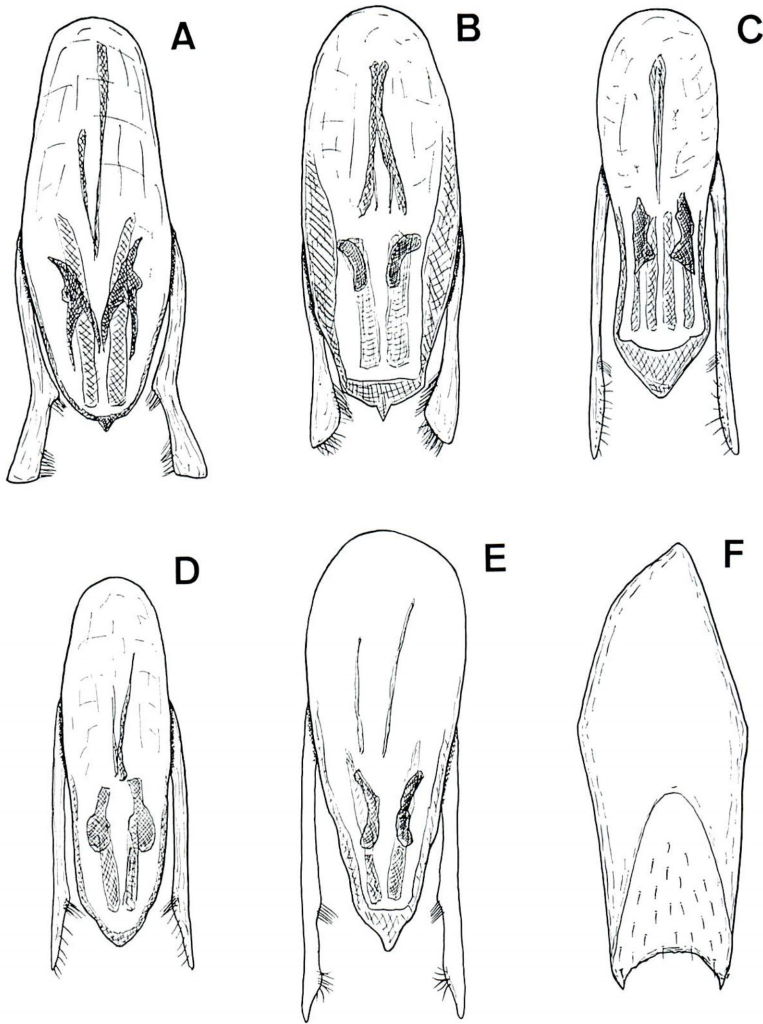


Fig. 1. A, *Stenus hijiri* sp. nov.; B, *S. carura* sp. nov.; C, *S. hirashimai* sp. nov.; D, *S. syaca* sp. nov.; E-F, *S. ryugu* sp. nov. A-E, Male genitalia in dorsal view; F, 9th sternum in male.

depressions distinct, longitudinal and weakly convergent anteriorly, median part between the depressions convex; punctures round, dense and almost umbilicate, interstices between punctures almost smooth and shiny. Antennae reaching posterior 3/4 of pronotum, 8th to 10th segments each constricted at base, 8th distinctly narrower than 9th, 11th pointed, with relative lengths of segments from base to apex as 10: 10: 21: 11: 10: 8: 8: 5: 6: 8: 10.

Pronotum a little shorter than elytra (0.93: 1), as long as broad, broadest at the middle and constricted at base, side margins rounded in anterior 3/4; disk uneven,

with a median longitudinal depression, the depression about $2/3$ times as long as pronotum, shallow and indistinct; punctures very dense, round and slightly irregular, interstices between punctures indistinctly sculptured.

Elytra about as long as broad, weakly constricted at base, side margins much rounded, hind margins together forming a wide and rather deep emargination; disk almost even, similarly punctate as on pronotum, but the punctures a little larger. Hind wings atrophied into small pieces, 0.21 times as long as elytra.

Legs elongate, hind tarsi 0.70 times as long as hind tibiae.

Abdomen slender and much cylindrical; punctures similar to those in *S. hijiri* sp. nov.; 6th sternum flat at posteromedian part; 7th sternum shallowly concave, with a tuft of golden yellow short hairs at posteromedian part; 8th sternum with a small and arcuate emargination at the middle of posterior margin; 9th sternum with a deep and arcuate emargination at posterior margin and a pair of long hairs at the bases of apicolateral projections, the projections stout and pointed. Genitalia (Fig. 1 D) with median lobe elongate oval, obtusely pointed at apex, lateral margins weakly sinuate; parameres slender, extending beyond apex of median lobe, obliquely truncate, each paramere with a tuft of short hairs at the base of truncation and sparse pubescence on apico-internal part.

Holotype, male (Type No. 2681, Kyushu Univ.), Ohono, Rokuroshi, Fukui Pref., 20~23-VII-1980, H. SASAJI leg.

Distribution. Japan (Honshu: Chubû District).

Remarks. This new species is allied to *S. hirashimai* sp. nov., but the body is smaller (3.3 mm), the 7th sternum is shallowly concave in the male, and the shape of the male genitalia is different. The median lobe is elongate oval and the parameres are shorter and more acutely pointed at the apices.

Stenus carura sp. nov.

(Fig. 1 B)

Male. Body length: 3.7 mm.

Body dark brown to black and moderately shiny, frontoclypeal area reddish along anterior margin; labrum, antennae, maxillary palpi and legs red to reddish brown.

Head broader than elytra (1.11: 1), 1.74 times as broad as long, frontoclypeal area minutely sculptured, with moderately long and sparse pubescence, interocular area shallowly concave, with a pair of depressions, the depressions distinct, longitudinal and convergent anteriorly, median part between the depressions triangular and moderately convex; punctures round, sparse, and sparser on the middle than near inner margins of eyes, interstices between punctures indistinctly sculptured. Antennae slender, reaching posterior $5/6$ of pronotum, 3rd to 8th segments subequal in breadth to one another, 9th to 11th forming a loose club, with relative lengths of segments from base to apex as 10: 10: 20: 11: 10: 8: 8: 6: 7: 8: 10.

Pronotum shorter than elytra (0.87: 1), about as long as broad, broadest at anterior 2/5, moderately constricted at base, side margins much rounded in anterior 3/4; disk almost even, with a median longitudinal depression, the depression narrow, distinct and about 0.8 times as long as pronotum; punctures very dense and irregular, interstices between punctures distinctly sculptured.

Elytra broader than long (1.13: 1), constricted at base, side margins weakly rounded, hind margins together forming a wide and V-shaped emargination; disk uneven, with rough punctures. Hind wings reduced, 0.19 times as long as elytra.

Legs moderate in length, femora thick, hind tarsi 0.65 times as long as hind tibiae, with 1st tarsomeres swollen.

Abdomen subparallel-sided, similarly punctate as in *S. hijiri* sp. nov.; 6th sternum flat at posteromedian part; 7th sternum shallowly depressed at posteromedian part, the depression becoming deeper toward posterior margin which is arcuately emarginate; 8th sternum with a moderate emargination; 9th sternum with an arcuate emargination at posterior margin, apicolateral projections acutely pointed. Male genitalia (Fig. 1 B) with median lobe elongate oval, stout, rounded at base, gradually narrowed from posterior 1/3 to distinct apicolateral angles, minutely pointed at the middle of apical margin; parameres extending beyond apex of median lobe, broadened apically, obliquely truncate at apices, each paramere with two tufts of short hairs on apico-internal margin.

Holotype, male (Type No. 2682, Kyushu Univ.), Mt. Ishizuchi, Ehime Pref., 16-VI-1981, S. NAOMI leg.

Distribution. Japan (Shikoku).

Remarks. This new species is allied to *S. hijiri* sp. nov., but the 1st tarsomeres of the hind legs are much thicker, the 7th sternum is arcuately emarginate at the middle of the posterior margin in the male and the male genitalia are different in structure. The apicolateral parts of the median lobes are distinctly angulate and the parameres are almost straight in full length and obliquely truncate at the apices.

Stenus hirashimai sp. nov.

(Fig. 1 C)

Male and female. Body length: 3.5–3.7 mm.

Head and abdomen black and moderately shiny; pronotum and elytra dark reddish brown to black and moderately shiny; labrum blackish, with anterior margin reddish; antennae yellowish except for 5 brownish apical segments; maxillary palpi and legs yellowish red to yellowish brown.

Head broader than elytra (1.08: 1), 1.63 times as broad as long, frontoclypeal area moderately punctate, with short median longitudinal keel, interocular area with a pair of depressions, the depressions longitudinal, very shallow and indistinct in outline, median part between the depressions gently convex; punctures round, moderate in size and almost uniform, interstices between punctures indistinctly sculptured. An-

tennae slender, reaching posterior 5/6 of pronotum, 7th to 10th segments gradually broadened apically, 11th obtusely pointed, with relative lengths of segments from base to apex as 10: 10: 19: 11: 10: 8: 7: 5: 7: 8: 10.

Pronotum shorter than elytra (0.91: 1), as long as broad, broadest near the middle, side margins moderately rounded; disk slightly uneven, with an indistinct median longitudinal depression; punctures very dense, round and slightly irregular, interstices between punctures indistinctly sculptured.

Elytra broader than long (1.13: 1), weakly constricted at base, side margins gently rounded, hind margins together forming a deep and V-shaped emargination; disk slightly uneven, with punctures elongate oval, dense and a little larger than those on pronotum. Hind wings reduced, 0.38 times as long as elytra.

Legs moderate in length, hind tarsi 0.64 times as long as hind tibiae.

Abdomen robust; punctures round to elongate oval, interstices between punctures much shorter than diameters of punctures on 3rd tergum, punctures becoming gradually smaller and sparser posteriorly from 3rd to 8th terga.

Male. Seventh sternum flat at posteromedian part; 8th sternum with a moderate emargination at the middle of posterior margin; 9th sternum distinctly serrate and almost straight at posterior margin, apicolateral projections acutely pointed. Genitalia (Fig. 1 C) with median lobe gently constricted near anterior 1/3, moderately sclerotized at apical triangular area, obtusely pointed at apex; parameres slender, ex-

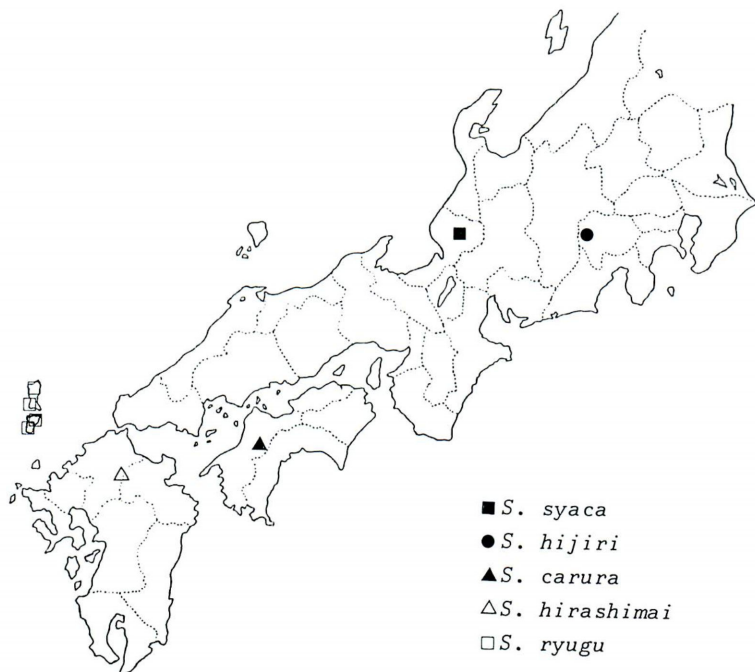


Fig. 2. Distributional map of the *Stenus hijiri* group

tending beyond apex of median lobe, each paramere with a tuft of short hairs at apical 1/4, sparsely haired on apico-internal part.

Female. Eighth sternum entire.

Holotype, female (Type No. 2683, Kyushu Univ.), Mt. Hiko, Fukuoka Pref., 4-IX-1977, H. OHISHI leg. Paratypes, 1 male and 6 females, same data as holotype.

Distribution. Japan (Kyushu).

Remarks. This new species is allied to *S. syaca* sp. nov., but the body is larger (3.5–3.7 mm) and the 7th sternum is flat and provided with a tuft of short hairs at the posteromedian part in the male. The median lobe of the male genitalia is constricted near the anterior 1/3 and the parameres are longer.

This species is named in honor of Prof. Y. HIRASHIMA of the Entomological Laboratory, Kyushu University.

Stenus ryugu sp. nov.

(Fig. 1 E–F)

Male and female. Body length: 3.1–3.5 mm.

Head and abdomen black and very shiny; pronotum and elytra dark red to black; labrum dark brown to black, with anterior margin reddish; antennae with 1st to 2nd segments yellow to yellowish red, 3rd to 8th reddish brown, 9th to 11th brown to dark brown; maxillary palpi and legs pale yellow to yellowish brown.

Head broader than elytra (1.19: 1), 1.67 times as long as broad, frontoclypeal area well convex, with sparse punctures and pubescence, interocular area with a pair of depressions, the depressions longitudinal, moderately deep and weakly convergent anteriorly, median part between the depressions elongate trapezoidal, moderately convex; punctures round, small and sparse, interstices between punctures indistinctly sculptured. Antennae slender, reaching posterior 4/5 of pronotum, 3rd to 8th segments subequal in breadth to one another, 9th to 11th forming a loose club, with relative lengths of segments from base to apex as 10: 10: 20: 11: 10: 8: 7: 5: 7: 7: 9.

Pronotum about as long as elytra, a little longer than broad (1.06: 1), broadest at anterior 2/5, weakly constricted at base, side margins much rounded; disk almost even, with an indefinite median longitudinal depression; punctures round, very dense and almost regular, interstices between punctures distinctly sculptured.

Elytra broader than long (1.11: 1), moderately constricted at base, side margins weakly rounded, hind margins together forming a wide and arcuate emargination; disk almost even, with punctures large, round, dense and regular. Hind wings reduced, 0.26 times as long as elytra.

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

Abdomen robust and much cylindrical; punctures round, moderate in size and dense on 3rd tergum, interstices between punctures distinctly narrower than diameters of punctures on 3rd tergum, and about as long as the diameters on 5th tergum, punctures very fine and sparse on 8th tergum.

Male. Eighth sternum with a shallow and arcuate emargination at the middle of posterior margin; 9th sternum shallowly arcuate (Fig. 1 F) or almost straight at posterior margin, apicolateral projections pointed. Genitalia (Fig. 1 E) with median lobe much bulbous in basal half, narrowed apically, slightly sinuate at lateral margins and pointed at apex; parameres slender, extending beyond apex of median lobe, each paramere with a tuft of straight hairs at posterior 1/3, and the other tuft of curved hairs near apex.

Female. Eighth sternum obtusely pointed at the middle of posterior margin.

Holotype, male (Type No. 2684, Kyushu Univ.), Mt. Shiratake, Tsushima Is., Nagasaki Pref., 17-X-1983, S. NOMURA leg. Paratypes, 5 exs., same data as holotype; 9 exs., Mehoro, Tsushima Is., Nagasaki Pref., 20-X-1983, S. NOMURA leg.; 2 exs., Mt. Tatera, Tsushima Is., Nagasaki Pref., 16-X-1983, S. MOMURA leg.; 1 ex., Mt. Mitake, Tsushima Is., Nagasaki Pref., 19-X-1983, S. NOMURA leg.

Distribution. Japan (Tsushima Is.).

Remarks. This new species is similar to *S. hijiri* sp. nov. and *S. carura* sp. nov., but the eyes are more convex, the 7th sternum is evenly convex at the posteromedian part in the male, and the parameres of the male genitalia are slenderer and pointed at the apices.

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 Dr. H. SASAJI (Fukui University), Mr. S. NOMURA (Kyushu University) and Mr. H. OHISHI (Kyoto City) for their kind offer of valuable stenine specimens examined 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。XII. メダカハネカクシ属 *Hypostenus* 亜属，4. — 本論文で *S. rufescens* 複合群の中の *hijiri* 種群を論じた。本種群は，*Stenus hijiri*, *S. syaca*, *S. carura*, *S. hirashimai* および *S. ryugu* の 5 新種から成り，本州（中部地方），四国，九州および対馬に分布している。本種群は，1) 頭部は通常黒色だが，しばしば額頭盾部は赤みをおび，2) 雄の第 6 腹板中央後方は滑らかな凸状であるか平たく，第 7 腹板中央後方は凸状か，平たいかあるいは浅く凹み，3) 雄交尾器中央片は通常先端部が尖り，各側片は 1 あるいは 2 つの短毛束を中央より後方の内縁部にそなえる。

hijiri 種群のうち，*S. hijiri*, *S. carura* および *S. ryugu* の 3 種では，複眼間中央域が疎に点刻され，雄交尾器各側片は 2 つの短毛束をそなえている。一方，*S. hirashimai* および *S. syaca* の 2 種では，複眼間中央域は普通にあるいは密に点刻され，雄交尾器各側片は 1 つの短毛束をそなえている。

[Note] References will be given at the end of this series.