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

XV. Subgenus Hypostenus of the Genus Stenus LATREILLE, Part 71)

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Abstract A key to 51 species of the subgenus *Hypostenus* from Japan is provided. A new species, *Stenus oshimaensis* is described from Amami-Ohshima Is., Kagoshima Pref., and *S. bohemicus* Machulka and *S. flavidulus paederinus* Champion are first recorded from Japan.

## Stenus flavidulus SHARP

Stenus flavidulus Sharp, 1889, Annls. Mag. nat. Hist., (6), 3: 334; Bernhauer & Schubert, 1911,
Coleopt. Cat., (29): 174; Adachi, 1950, Icon. Ins. Japon., p. 996; Adachi, 1957, J. Tôyô Univ.,
(11): 191; Nakane, 1963, Icon. Ins. Japon. Col. nat. ed., 2: 86; Puthz, 1968, Dt. ent. Z., 14: 142; Shibata, 1976, Annual Bull. Nichidai Sanko, (19): 200.

Specimens examined. 1 ex., Nakanogô-Daigo-Yama, Mitsune, Hachijô Is., Tokyo, 1-vi-1964, Y. Hirashima & M. Shiga leg.; 1 ex., Shôbaru City, Hiroshima Pref., 14-ix-1985, I. Okamoto leg.

Distribution. Japan (Honshu, Hachijô Is., Yakushima Is.).

## Stenus flavidulus paederinus CHAMPION

(Fig. 1 A, D, H)

Stenus flavidulus paederinus: Puthz, 1967, Dt. ent. Z., 14: 143; Puthz, 1973, J. Ent., (B), 42: 72; ROUGEMONT, 1981, Annli. Mus. civ. Stor. nat. Genova, 83: 374; Puthz, 1981, Reichenbachia, 19: 8; ROUGEMONT, 1983, Nat. Hist. Bull. Siam Soc., 31: 53.

Stenus paederinus Champion, 1924, Ent. mon. Mag., 60: 160; Cameron, 1940, Proc. R. ent. Soc. Lond., (B), 9: 87.

Specimens examined. 1 ex., Akagina, Amami-Ohshima Is., Kagoshima Pref., 17-vii-1954, S. Міуамото & Y. Ніказніма leg.; 1 ex., Shinmura, Amami-Ohshima Is., Kagoshima Pref., 3-xi-1962, C. Онкима leg.; 1 ex., Hatsuno, Amami-Ohshima Is., Kagoshima Pref., 8-v-1982, T. Ogata leg.; 1 ex., Yona, Okinawa Main Is.,

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Okinawa Pref., 18-iii-1975, Y. Watanabe leg.; 1 ex., same locality, 20-iv-1986, M. Yoshida leg.; 3 exs., Genkagawa River, Haneji, Okinawa Main Is., Okinawa Pref., 26-ii-1988, K. Morimoto leg.; 1 ex., Yomitan-son, Okinawa Main Is., Okinawa Pref., 25-ii-1988, K. Morimoto leg.

Distribution. Japan (Amami-Ohshima Is., Okinawa Main Is.); Oriental Region. Remarks. Stenus flavidulus paederinus Champion is first recorded from Japan, and is easily distinguished from the nominotypical subspecies by the blackish elytral markings. The markings are separated into two parts, each elongate oval in shape (Fig. 1 D), or broadly continuous at the suture (Fig. 1 A). The male genitalia are figured for comparison (Fig. 1 H).

### Stenus bohemicus Machulka

(Fig. 1 B)

Stenus bohemicus Machulka, 1947, Acta ent. Mus. natn. Pragae, 25: 88; Lohse, 1964, Staph. I, Käfer Mitt.-Eur., 4: 122; Smetana, 1966, Acta ent. bohemoslov., 63: 327; Puthz, 1967, Reichenbachia, 9: 82; Puthz, 1971, Faun. Abh. staat. Mus. Tierk. Dresden, 3: 141; Puthz, 1971, Ent. Blät., 67: 84; Puthz, 1972, Ent. Blät., 68: 152; Puthz, 1974, Fragm. faun., 19: 439.

Specimens examined. 8 exs., Nakayama Pass, Hokkaido, 22-vi-1986, K. Morimoto leg.; 6 exs., Ashoro, Hokkaido, 25-vi-1986, K. Morimoto leg.; 1 ex., Aioi, Hokkaido, 24-vi-1986, K. Morimoto leg.; 1 ex., Obihiro City, Hokkaido, 6-vi-1980, H. Togawa leg.; 1 ex., Piribetsu, Hokkaido, 29-vii-1986, S. Nomura leg.

Distribution. Japan (Hokkaido); Palearctic Region.

*Remarks*. This species is first reported from Japan and is collected by sweeping grasses at lowlands and low mountainous areas in Hokkaido.

## Stenus oshimaensis sp. nov.

(Fig. 1 C)

Male and female. Body length: 3.8-4.5 mm.

Body black and very shiny; labrum reddish brown; antennae, maxillary palpi and legs pale yellow to yellow.

Head narrower than elytra (0.93:1), 1.59 times as broad as long, frontoclypeal area covered with silvery white short hairs, interocular area almost flat to weakly convex, with a pair of depressions, which are longitudinal, shallow, indistinct and subparallel, median part between the depressions very weakly convex; punctures large, round, distinct and almost regular, interstices between punctures smooth and very shiny. Antennae slender, reaching posterior margin of pronotum, each segment much longer than broad, 3rd to 8th subequal in breadth, 9th to 11th forming a loose club, with relative lengths of segments from base to apex as 10:10:18:16:13:11:10:9:10:10:11.

Pronotum shorter than elytra (0.77:1), longer than broad (1.18:1), broadest

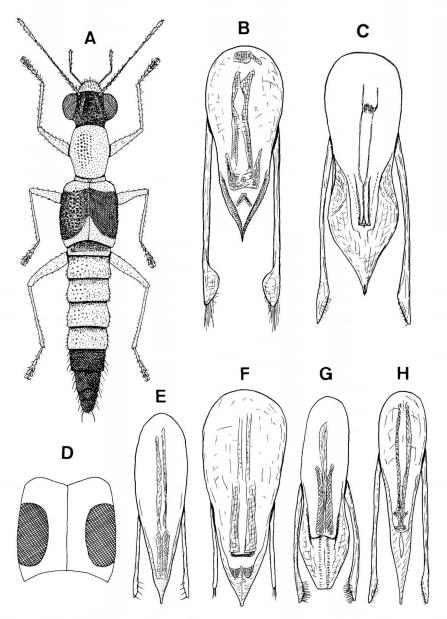


Fig. 1. A, D, H, Stenus flavidulus paederinus Champion; B, S. bohemicus Machulka; C, S. oshimaensis sp. nov.; E, S. dissimilis Sharp; F, S. cicindeloides (Schaller); G, S. velox Sharp. A, Habitus; B, C, E–H, male genitalia in dorsal view; D, elytra.

near the middle, then gently narrowed both anteriorly and posteriorly; disk almost smooth, with neither median depression nor smooth spot; punctures round, distinct,

dense and a little larger in center than near anterior and posterior margins, interstices between punctures smooth and very shiny.

Elytra a little longer than broad (1.03:1), well convex above, developed at anterolateral corners, and gently rounded at side margins and posterolateral corners, hind margins together forming an arcuate emargination; disk even, with punctures dense, round and regular. Hind wings functional.

Legs elongate, hind tarsi 0.49 times as long as hind tibiae, with 2nd tarsomere distinctly broader than 1st, broadly emarginate at apical margin, 3rd and 4th each strongly bilobed.

Abdomen distinctly narrower than elytra, subparallel-sided, 3rd to 5th segments each broadly impressed at base; punctures moderate in density from 3rd to 8th segments throughout, but becoming gradually smaller posteriorly, interstices between punctures almost smooth and very shiny on 3rd to 6th terga, minutely sculptured on 7th to 8th terga; pubescence sparse, silvery white and decumbent.

Male. Eighth sternum with a deep and V-shaped emargination at the middle of posterior margin; 9th sternum very shallowly emarginate and minutely serrate at posterior margin, gently rounded and without projection at apicolateral corners. Genitalia (Fig. 1 C) with median lobe bulbous at base, moderately constricted near the middle, acutely pointed at apex which is longitudinally carinate on dorsal side; parameres very slender, extending beyond apex of median lobe, obliquely truncate at apices, each with short hairs on apico-internal margin.

Female. Eighth sternum entire at posterior margin.

Holotype, male (Type No. 2695, Kyushu Univ.), Marubatake, Amami-Ohshima Is., Kagashima Pref., 22-iii-1986, T. Ogata leg. Paratypes, 2 exs., same data as for holotype; 1 ex., Hatsuno, Amami-Ohshima Is., Kagoshima Pref., 11-xi-1962, Y. MIYATAKE leg.; 1 ex., Nishinakama, Amami-Ohshima Is., Kagoshima Pref., 10-iv-1976, H. Makihara leg.; 1 ex., Kanpira Fall, Iriomote Is., Okinawa Pref., 15-iv-1975, H. Irie leg.

Distribution. Japan (Amami-Ohshima Is., Ishigaki Is.).

Remarks. This new species is similar to Stenus amoenus BENICK, 1916, but the elytra are immaculate and the 8th sternum of the male is straight at the posterior margin.

# Key to the Species of the Subgenus Hypostenus of Japan

This key is given for all the 51 Japanese species of the subgenus *Hypostenus*. Keys to some species of *Hypostenus* given by PUTHZ (1968) and HROMÁDKA (1982) are referred.

- 1 (28) Head usually narrower than or as broad as elytra; elytra well developed at humeral parts; hind wings developed.
- 2 (9) Body smaller (2.5–3.4 mm).
- 3 (6) Frons broader; punctures on dorsum larger and denser.
- 4 (5) Elytra longer; median lobe of male genitalia broader in apical half (PUTHZ,

1968 a, p. 201)S. cribellatus Motschulsky (= $S$ . confertus Sharp).
Elytra shorter; median lobe of male genitalia narrower in apical half
(Fig. 1 E)
Frons narrower; punctures on dorsum smaller and sparser.
Pronotum longer, weakly rounded at sidesS. concinnus SHARP.
Pronotum shorter, strongly rounded at sidesS. oblitus Sharp.
Body larger (4.1–6.0 mm).
Body broader; 3rd to 5th abdominal segments each with a median longitudinal keel at base.
Body less strongly shiny; punctures on dorsum smaller; legs with tibiae entirely black; parameres of male genitalia extending much beyond apex of median lobe (Fig. 1 B)S. bohemicus Machulka.
Body more strongly shiny; punctures on dorsum larger; legs with tibiae yellowish at least at inner sides; parameres of male genitalia not extending beyond apex of median lobe (Fig. 1 F)
S. cicindeloides (SCHALLER).
Body narrower; 3rd to 5th abdominal segments each without median keel at base.
Pronotum and 3rd to 6th abdominal segments yellowish red; male genitalia as in Fig. 1 H.
Elytra entirely yellow to yellowish redS. flavidulus flavidulus Sharp.
Elytra yellowish with blackish markings (Fig. 1 A, D)
S. flavidulus paederinus CHAMPION.
Pronotum and abdomen blackish.
Body blackish with dark bronze reflection; interocular area without dis-
tinctly elevated median part.
Head a little narrower than or almost as broad as elytra; interocular area more deeply concave.
Pronotum with smaller punctures; median lobe of male genitalia sub-parallel-sided
Pronotum with larger punctures; median lobe of male genitalia moderately constricted near the middle (Fig. 1 G)S. velox Sharp.
Head distinctly narrower than elytra; interocular area less deeply concave.
Median lobe of male genitalia narrower, narrowed apically; parameres
with longer hairs on apico-internal parts
Median lobe of male genitalia broader, gently constricted near the middle; parameres with shorter hairs on apico-internal parts (Fig. 1 C)
S. oshimaensis sp. nov.
Body blackish with bluish reflection; interocular area with a distinctly elevated median part.
Punctures on pronotum larger; pubescence on abdomen erect.
Body smaller (4.3-4.5 mm); abdomen with fine and dense punctures on

	th and 8th terga
26 (25)	Body larger (6.0 mm); abdomen with coarse punctures on 7th and 8th
	tergaS. sedatus Sharp.
27 (24)	Punctures on pronotum smaller; pubescence on abdomen decumbent
	S. mercator Sharp.
28 (1)	Head usually broader than elytra (except for S. oni NAOMI); elytra mod-
(-)	erately or strongly constricted at base; hind wings reduced and not
	functional (S. rufescens complex).
29 (30)	Abdomen with sparse, long and erect hairs
30 (29)	Abdomen with dense, short and decumbent pubescence.
	Median lobe of male genitalia with a large and broad emargination at
31 (36)	-
22 (22)	apex.
32 (33)	Antennae shorter and thicker; pronotum, elytra and 3rd to 6th abdominal
/>	segments dark red
33 (32)	Antennae longer and thinner; pronotum, elytra and 3rd to 6th abdominal
	segments black.
34 (35)	Body broader; labrum blackish; eyes more strongly convex; antennae
	reaching posterior margin of pronotum; 3rd to 7th abdominal sterna
	each with a depression or flat area at posteromedian part in male;
	parameres of male genitalia extending beyond apex of median lobe
	S. daimio Naomi.
35 (34)	Body narrower; labrum red to dark red; eyes less strongly convex; an-
	tennae not reaching posterior margin of pronotum; 7th sternum only
	simply flat at posteromedian part in male; parameres of male genitalia
	extending a little before apex of median lobeS. imasakai NAOMI.
36 (31)	Median lobes of male genitalia various in shape, but never provided with
	a large emargination at apical margin.
37 (46)	Parameres of male genitalia each with one or two tufts of hairs.
38 (43)	Interocular area sparsely punctate on the median part between longitu-
. ,	dinal depressions; parameres of male genitalia each with two tufts of
	short hairs.
39 (42)	Labrum reddish; eyes less strongly convex; 7th sternum flat or depressed
( - )	at posteromedian part in male; median lobe of male genitalia broader
	in apical half; parameres broader, straightly or obliquely truncate at
	apices.
40 (41)	Hind tarsi with lst tarsomeres thinner; 7th sternum flat at posteromedian
()	part in male; parameres of male genitalia curved, straightly truncate
	at apices
41 (40)	Hind tarsi with 1st tarsomeres thicker; 7th sternum depressed at pos-
11 (10)	teromedian part in male; parameres of male genitalia almost straight,
	obliquely truncate at apices
42 (39)	Labrum dark brown to black; eyes more strongly convex; 7th sternum
12 (3)	Edulum dark of one to black, ejes more strongly convex, the sternam

- 43 (38) Interocular area moderately or densely punctate on the median part between longitudinal depressions; parameres of male genitalia each with a tuft of short hairs.

- 46 (37) Parameres of male genitalia without tuft of hairs.
- 47 (50) Median lobe of male genitalia distinctly constricted near apical 1/3 or the middle.

- 50 (47) Median lobe of male genitalia without distinct constriction.
- 51 (70) Seventh sternum with a distinct depression at posteromedian part in male (if the 7th sternum is flat, median lobe of male genitalia is provided with a median longitudinal suture at apical part).
- 52 (67) Median lobe of male genitalia with a median longitudinal suture at apical sclerotized part (if the median suture is absent, parameres do not extend much beyond the apex of median lobe).
- 53 (56) Head, pronotum and elytra red to reddish brown; 3rd abdominal sternum flat or depressed in male.

- 56 (53) Head blackish; pronotum and elytra yellowish brown to dark brown; 3rd abdominal sternum evenly convex transversely in male.
- 57 (64) Fourth to 5th abdominal sterna each flat or depressed at posteromedian part in male.
- 58 (59) Pronotum and elytra with rugose punctures; median lobe of male genitalia almost rounded at lateral margins in apical half.....

	S. testaceopiceus Bernhauer.
59 (58)	Pronotum and elytra with dense and round punctures; median lobe of male genitalia straight or sinuate at lateral margins in apical half.
60 (61)	Median lobe of male genitalia narrower, with straight apicolateral margins
(1 ((0)	
61 (60) 62 (63)	Median lobe of male genitalia broader, with sinuate apicolateral margins. Head broader; eyes more strongly convex; abdomen blackish; 8th sternum with a deep emargination in male; median lobe of male genitalia broader
63 (62)	Head narrower; eyes less strongly convex; abdomen yellowish brown; 8th sternum with a shallow emargination in male; median lobe of male genitalia narrower
64 (57)	Fourth to 5th abdominal sterna each evenly convex transversely.
65 (66)	Labrum reddish; interocular area with interstices between punctures minutely sculptured; 6th sternum flat at posteromedian part in male; median lobe of male genitalia arcuately emarginate at apicolateral margins
66 (65)	Labrum blackish, with reddish anterior margin; interocular area with interstices between punctures almost smooth; 6th sternum evenly convex transversely in male; median lobe of male genitalia straight at apico-
67 (52)	lateral margins
68 (69)	Seventh sternum with a narrower depression along the median line, sides of the depressions subparallel in male; parameres of male genitalia broader in apical parts
69 (68)	Seventh sternum with a broader depression at posteromedian part in male, the depressed part almost semicircular, with sides gradually diverging toward posterior margin; parameres of male genitalia narrower in apical parts
70 (51)	Seventh sternum convex, flat or with a shallow depression at posteromedian part in male.
71 (80)	Parameres of male genitalia slender, extending far beyond apex of median lobe, but not or weakly broadened toward apex.
72 (77)	Median lobe of male genitalia narrower in apical half, more or less pointed at apex.
73 (74)	Median lobe of male genitalia obtusely pointed at apex, internal margin of apical sclerotized area with a median V-shaped emargination
74 (73)	Median lobe of male genitalia acutely pointed at apex, internal margin

75 (76)	Eyes more strongly convex; interocular area more sparsely punctate; median lobe of male genitalia broadest near base, more acutely pointed
	at apex
76 (75)	Eyes less strongly convex; interocular area more densely punctate; median lobe of male genitalia broadest near the middle, less acutely pointed at apex
77 (72)	Median lobe of male genitalia broader in apical half, rounded with or without acuminate projection at apex.
78 (79)	Antennae with 3rd segment longer, 8th to 9th each elongate subtrapezoidal; interocular area with interstices between punctures distinctly sculptured; median lobe of male genitalia gently rounded at apical margin
79 (78)	Antennae with 3rd segment shorter, 8th to 9th each elongate oval; interocular area with interstices between punctures indistinctly sculptured; median lobe of male genitalia gently rounded with a minute and acuminate median projection at apical marginS. toshiharui NAOMI.
80 (71)	Parameres of male genitalia extending just to or a little beyond apex of median lobe (if the parameres are longer, they are strongly broadened at the median and/or apical part).
81 (90)	Head bicolorous (black and yellowish).
82 (87)	Median lobe of male genitalia with an acicular median projection.
83 (86)	Interocular area yellowish brown to reddish brown in the middle, blackish along inner margins of eyes; parameres of male genitalia shorter.
84 (85)	Antennae yellowish; 6th and 7th abdominal sterna each evenly convex transversely in male; median lobe of male genitalia with longer projection at apex
85 (84)	Antennae blackish except for 4 or 5 yellowish basal segments; 6th and 7th abdominal sterna each flat or very shallowly depressed at posteromedian part in male; median lobe of male genitalia with shorter projection at apex
86 (83)	Interocular area reddish brown in anterior half, blackish in posterior half; parameres of male genitalia longer
87 (82)	Median lobe of male genitalia obtusely pointed at apex.
88 (89)	Interocular area blackish in posteromedian part; male genitalia with median lobe narrower in apical half, parameres shorter
89 (88)	Interocular area reddish brown in posteromedian part; male genitalia with median lobe broader in apical half, parameres longer
90 (81)	Head unicolorous (blackish or yellowish brown).
91 (94)	Elytra reddish brown to brown.
92 (93)	Sixth and 7th sterna each shallowly depressed at posteromedian part in

93 (92)	male; median lobe of male genitalia rounded at apicolateral corners
	S. okamotoi Naomi.
94 (91)	Elytra entirely black.
95 (100)	Interocular area with interstices between punctures minutely sculptured;
	median lobe of male genitalia broadest at apicolateral corners.
96 (99)	Labrum entirely reddish brown; pronotum slightly uneven.
97 (98)	Median lobe of male genitalia pointed at apex; parameres just reaching apex of median lobe, each with 3 or 4 setae on apico-internal part
00 (07)	
98 (97)	Median lobe of male genitalia with a minute emargination at the middle of apical margin; parameres extending a little beyond apex of median lobe, glabrous on apico-internal parts
99 (96)	Labrum blackish, with reddish anterior margin; pronotum almost even
100 (95)	Interocular area with interstices between punctures almost smooth; median lobe of male genitalia broadest before the middle

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## 要 約

直海俊一郎: 日本産メダカハネカクシ亜科の研究. XV. メダカハネカクシ属 Hypostenus 亜属, 7. — 本論文で、日本産 Hypostenus 亜属のメダカハネカクシ 51 種についての検索表を作成した. また、1 新種、Stenus oshimaensis を奄美大島から記載した. さらに、S. bohemicus Machulka および S. flavidulus paederinus Champion を日本から初めて記録した.

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