

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

VIII. Subgenus *Parastenus* of the Genus *Stenus* LATREILLE, Part 3*

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Abstract A key to the Japanese species of the subgenus *Parastenus* is presented. Male genitalia of *Stenus koinobori* HROMÁDKA, 1980, and *S. hirtellus* SHARP, 1874, are described and figured for the first time.

Stenus koinobori HROMÁDKA

(Fig. 2 G-H)

Stenus koinobori HROMÁDKA, 1980, Z. Arbeitsgem. Österr. Ent., 31: 115.

Description of male. Seventh sternum flat along the median line in full length, with a very shallow emargination at posterior margin; 8th sternum with a medium-sized emargination at posterior margin; 9th sternum with a broad and shallow emargination. Genitalia (Fig. 2 G) elongate-oval, median lobe curved ventrally and sharply pointed at apex, apical part modified also with an anterodorsal projection and an anterodorsal transverse ridge before the projection in lateral view (Fig. 2 H), apical margin of median lobe round, with a small projection at the middle in dorsal view; parameres extending a little beyond apex of median lobe, slightly curved inward, with a few hairs at apices.

Specimens examined. 13 exs., Mt. Kariba, Shiribeshi, Hokkaido, 12-14. vi. 1986, S. NOMURA leg.

Distribution. Japan (Hokkaido).

Remarks. The male of this species is first discovered from Japan.

Stenus hirtellus SHARP

(Fig. 1 A, D-E)

Stenus hirtellus SHARP, 1874, Trans. ent. Soc. Lond., 1874: 86.

Description of male. Habitus as in Fig. 1 A; 8th sternum with a broad and

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shallow emargination at posterior margin; 9th sternum with a shallow emargination at posterior margin. Genitalia (Fig. 1 D) with median lobe acutely pointed; parameres extending almost to apex of median lobe, weakly swollen at apical parts, sparsely haired on apico-internal parts.

Specimens examined. 1 male, Ryûmon Valley, Saga Pref., 23. x. 1977, H. OHISHI leg.; 1 female, Mt. Unzen, Shimabara, Nagasaki Pref., 27. ix. 1977, S. IMASAKA leg.

Distribution. Japan (Kyushu).

Remarks. This species was classified in the subgenus *Hypostenus* by BERNHAUER and SCHUBERT (1911), but is regarded as a member of the subgenus *Parastenus* because of its strongly sclerotized spermatheca (Fig. 1 E).

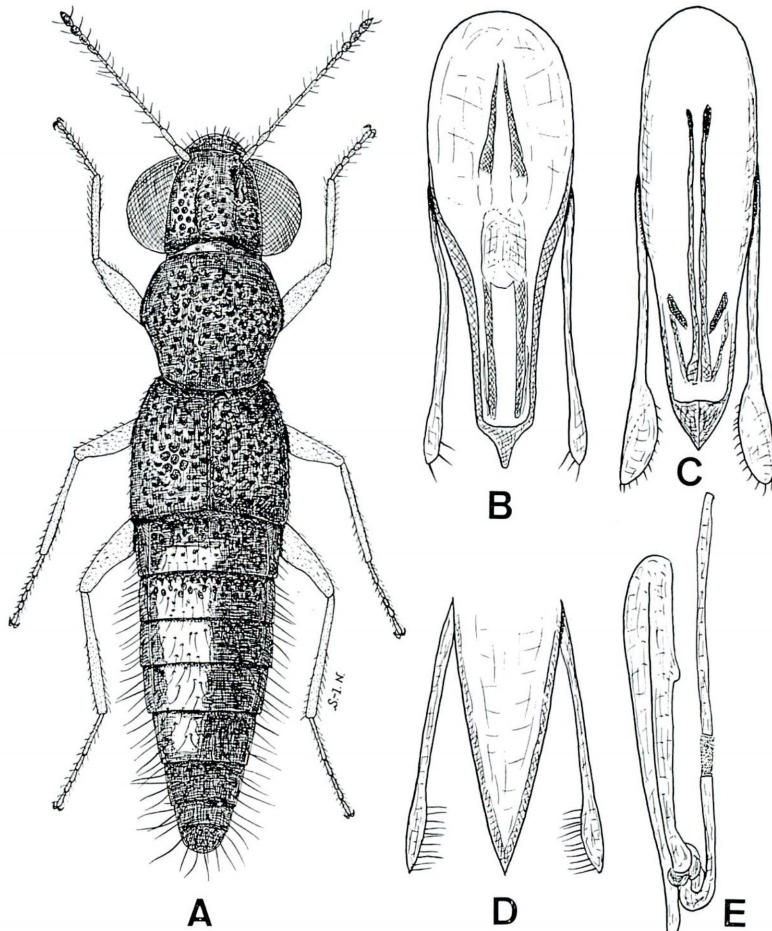


Fig. 1. A, D-E, *Stenus hirtellus* SHARP; B, *S. gestroi takara* NAKANE; C, *S. rugipennis* SHARP. — A, Habitus; B-C, male genitalia in dorsal view; D, apex of male genitalia in dorsal view; E, spermatheca in female.

This very rare species is interesting in having the following characters: 1) 4th tarsomeres simple, 2) paratergites of abdomen absent, and 3) abdomen very shiny, with long, erect and sparse hairs. As the conditions share with the other two species, *Stenus cirrus* BENICK, 1940, and *S. cirriformis* NAOMI, 1988, these three apparently constitute a monophyletic group.

Stenus indubius SHARP

(Fig. 2 B-C)

Stenus indubius SHARP, 1889, Anns. Mag. nat. Hist., (6), 3: 330.

Specimens examined. 1 ex., Mt. Saiho, Fukui Pref., 29-31. v. 1976, H. SASAJI leg.; 1 ex., Shimouchinami, Fukui Pref., 9. vi. 1974, H. SASAJI leg.; 1 ex., Mt. Kyôgatake, Fukui Pref., 26. vii. 1978, H. SASAJI leg.; 2 exs., Mt. Ohtô, Wakayama Pref., 28-29. vi. 1981, S. NAOMI leg.; 2 exs., Mt. Gomanodan, Wakayama Pref., 22-23. vi. 1981, S. NAOMI leg.; 2 exs., Mt. Ishizuchi, Ehime Pref., 16. vi. 1981, S. NAOMI leg.; 1 ex., Hakozaiki, Fukuoka C., Fukuoka Pref., 12. v. 1979, K. YAMAGISHI leg.; 2 exs., Yunohara, Saga Pref., 20. v. 1979, C. OHKUMA leg.; 1 ex., Mt. Tara, Saga Pref., 15. iv. 1984, S. NOMURA leg.; 1 ex., Kinsengi, Mt. Tara, Nagasaki Pref., 7. v. 1983, S. NOMURA leg.; 2 exs., Mt. Tsubaki, Saga Pref., 2. x. 1977, H. OHISHI leg.; 1 ex., Mt. Seburi, Fukuoka Pref., 6. x. 1983, H. HARADA leg.; 2 exs., same locality, 3. x. 1976, H. OHISHI leg.; 2 exs., Ikenohara Marsh, Saga Pref., 9. ix. 1976, H. OHISHI leg.

Distribution. Japan (Honshu, Shikoku, Kyushu).

Remarks. In the *indubius* group (sensu HROMÁDKA, 1979 a), *Stenus indubius* SHARP itself is most widespread and common. There are some variations as to the following characters. The interocular area is almost impunctate and shiny in general, but is sparsely punctate in some specimens. The parameres of the male genitalia extend to a little before the apex of the median lobe in the specimen from Kobe (HROMÁDKA, 1979 a, fig. 1), but they extend just to and a little beyond the apex of the median lobe in the specimens from Fukui (Fig. 2 B) and from Saga (Fig. 2 C), respectively.

Key to the Species of the Subgenus *Parastenus* of Japan

This key is given for all the 29 Japanese species of the subgenus *Parastenus*. Keys to some species of *Parastenus* given by PUTHZ (1968) and HROMÁDKA (1979 a) are referred.

- 1 (34) Abdomen without paratergite in 5th to 7th segments.
- 2 (9) Abdomen with erect, long and sparse hairs.
- 3 (6) Fourth tarsomeres simple.
- 4 (5) Body larger (4.2-4.5 mm); antennae reaching posterior 1/4 of pronotum; median lobe of male genitalia broader; spermatheca robustus in female
..... *S. cirriformis* NAOMI.

- 5 (4) Body (Fig. 1 A) smaller (3.0–3.2 mm); antennae reaching posterior 2/3 of pronotum; median lobe of male genitalia narrower (Fig. 1 D); spermatheca slenderer in female (Fig. 1 E).....*S. hirtellus* SHARP.
- 6 (3) Fourth tarsomeres bilobed.
- 7 (8) Interocular area with a median smooth space broader and very shiny; pronotum and elytra with sparser punctures.....*S. amamiensis* NAOMI.
- 8 (7) Interocular area with a median smooth space narrower and moderately shiny; pronotum and elytra with denser punctures....*S. punctifer* NAOMI.
- 9 (2) Abdomen with decumbent and short pubescence or almost glabrous.
- 10 (11) Head deeply concave between eyes; elytra bicolorous, blackish with a pair of ill-defined reddish markings.....*S. guttalis ishigakiensis* NAOMI.
- 11 (10) Head shallowly concave between eyes; elytra concolorous, dark reddish black to black.
- 12 (13) Body smaller (2.8–3.1 mm) and broader.....*S. hagoromo* NAOMI.
- 13 (12) Body larger (more than 3.5 mm) and narrower.
- 14 (15) Head narrower than elytra (male unknown).....*S. fugu* HROMÁDKA.
- 15 (14) Head as broad as or broader than elytra.
- 16 (21) Eighth sternum with a broader and deeper emargination at posterior margin in male.
- 17 (18) Body with bluish shimmer; parameres of male genitalia extending just to apex of median lobe (HROMÁDKA, 1979 a, fig. 15).....
.....*S. unagi* HROMÁDKA.
- 18 (17) Body without bluish shimmer; parameres of male genitalia extending a little beyond apex of median lobe.
- 19 (20) Interstices between punctures distinctly sculptured on abdomen; median lobe of male genitalia narrower (HROMÁDKA, 1979 a, fig. 20).....
.....*S. ookami* HROMÁDKA.
- 20 (19) Interstices between punctures indistinctly sculptured on abdomen; median lobe of male genitalia broader (Fig. 2 A).....*S. sakana* HROMÁDKA.
- 21 (16) Eighth sternum with a narrower and shallower emargination at posterior margin in male.
- 22 (27) Median lobe of male genitalia slenderer, narrowed in posterior half.
- 23 (24) Pronotum broader than long; median lobe of male genitalia strongly narrowed apically in posterior half (HROMÁDKA, 1979 a, fig. 17).....
.....*S. tanuki* HROMÁDKA.
- 24 (23) Pronotum longer than broad; median lobe of male genitalia gently narrowed apically in posterior half.
- 25 (26) Head with a round smooth space between eyes in general; median lobe of male genitalia weakly pointed at apex (Fig. 2 B: Fukui, 2 C: Saga)....
.....*S. indubius* SHARP.
- 26 (25) Head almost uniformly covered with sparse punctures; median lobe of male genitalia gently rounded at apex.....*S. takane* NAOMI.

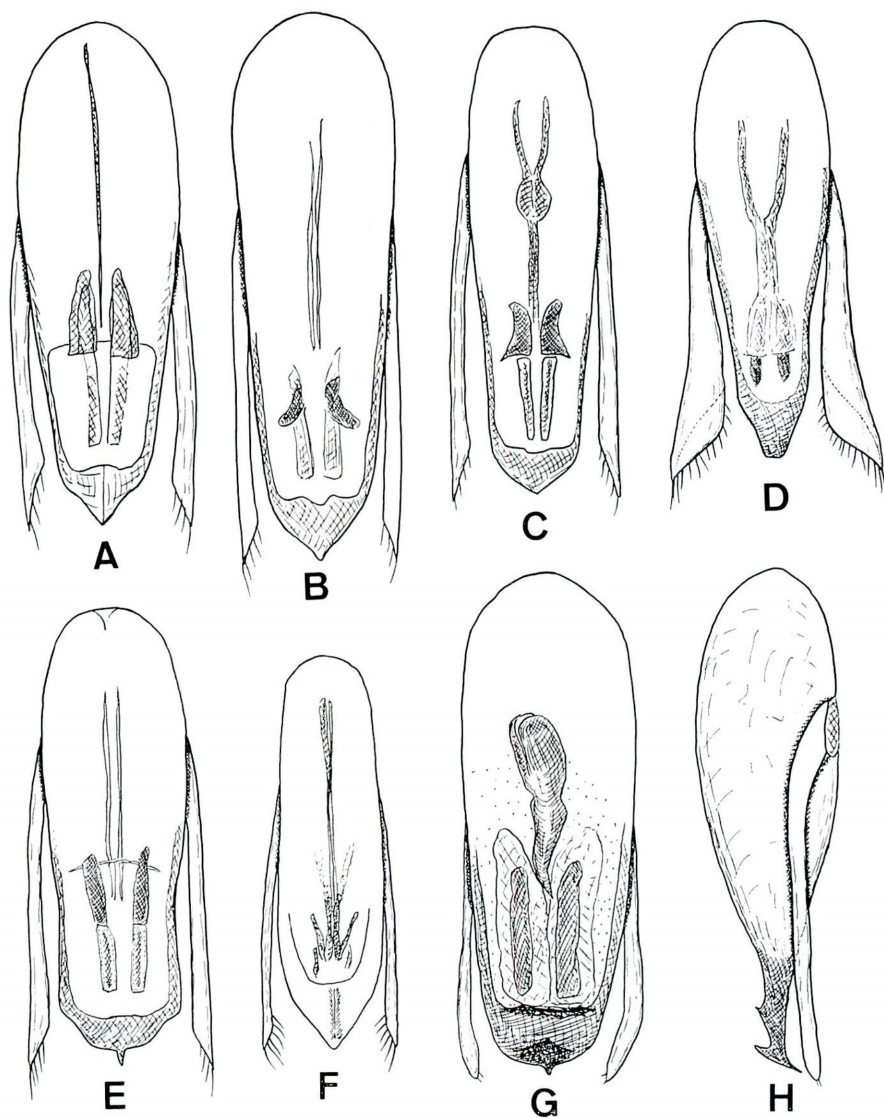


Fig. 2. A, *Stenus sakana* HROMÁDKA; B-C, *S. indubius* SHARP; D, *S. coronatus zipanguensis* PUTHZ; E, *S. sawadai* HROMÁDKA; F, *S. sharpi* BERNHAUER et SCHUBERT; G-H, *S. koinobori* HROMÁDKA. A-G, Male genitalia in dorsal view; H, male genitalia in lateral view.

- 27 (22) Median lobe of male genitalia robust, subparallel-sided in posterior half.
- 28 (31) Pronotum and elytra with dense, round and large punctures; antennae reaching posterior margin of pronotum.
- 29 (30) Median lobe of male genitalia rounded with a shorter median projection at apical margin.....*S. ohishii* NAOMI.

- 30 (29) Median lobe of male genitalia sinuate with a longer median projection at apical margin (Fig. 2 E).....*S. sawadai* HROMÁDKA.
- 31 (28) Pronotum and elytra with dense and subrugose punctures; antennae not reaching posterior margin of pronotum.
- 32 (33) Median lobe of male genitalia with an acicular projection at apicomedian part; parameres extending to apex of the projection....*S. kasumi* NAOMI.
- 33 (32) Median lobe of male genitalia with a small triangular projection at apicomedian part; parameres extending beyond apex of the projection.....
.....*S. kumoma* NAOMI.
- 34 (1) Abdomen with paratergites in each of 5th to 7th segments.
- 35 (38) Abdomen with long hairs.
- 36 (37) Elytra broader; abdomen with finer and sparser punctures; male genitalia with median lobe acutely pointed, parameres broader, with denser hairs at apices (HROMÁDKA, 1979 b, fig. 1).....*S. sawadai* HROMÁDKA.
- 37 (36) Elytra narrower; abdomen with larger and denser punctures; male genitalia with median lobe obtusely pointed, parameres narrower, with sparser hairs at apices (HROMÁDKA, 1979 b, fig. 7).....*S. domburi* HROMÁDKA.
- 38 (35) Abdomen with short hairs or almost glabrous.
- 39 (44) Elytra bicolorous, blackish with a pair of reddish markings.
- 40 (41) Head broader than elytra, deeply concave between eyes; parameres of male genitalia thinner (Fig. 1 B).....*S. gestroi takara* NAKANE.
- 41 (40) Head narrower than or almost as broad as elytra, moderately concave between eyes; parameres of male genitalia thicker.
- 42 (43) Pronotum and elytra rugosely punctate; median lobe of male genitalia narrowed apically (Fig. 2 D).....*S. coronatus zipanguensis* PUTHZ.
- 43 (42) Pronotum and elytra with round and dense punctures; median lobe of male genitalia swollen in apical half (PUTHZ, 1968, fig. 10)....*S. bicolon* SHARP.
- 44 (39) Elytra concolorous, yellowish brown or blackish.
- 45 (48) Body longer than 3.7 mm.
- 46 (47) Body larger (5.0–6.0 mm); head broader than elytra, with a median elevated and smooth space between eyes; parameres of male genitalia extending almost to apex of median lobe, truncate at apico-internal parts (Fig. 2 F).....
.....*S. sharpi* BERNHAUER et SCHUBERT.
- 47 (46) Body smaller (3.7–4.5 mm); head a little narrower than elytra, without a smooth space between eyes; parameres of male genitalia extending beyond apex of median lobe, swollen at apical parts (Fig. 1 C).....
.....*S. rugipennis* SHARP.
- 48 (45) Body shorter than 3.3 mm.
- 49 (52) Body narrower and more convex in both sexes; pronotum and elytra blackish.
- 50 (51) Elytra about as long as pronotum; median lobe of male genitalia almost truncate and shallowly bi-emarginate at apical margin....*S. satsuki* NAOMI.
- 51 (50) Elytra shorter than pronotum; median lobe of male genitalia pointed at

- apex (HROMÁDKA, 1980, Abb. 6).....*S. cephalotes* SHARP.
- 52 (49) Body broader and flatter at least in female; pronotum and elytra reddish brown to dark brown.
- 53 (54) Male genitalia narrower, narrowed apically.....*S. etsukoae* NAOMI.
- 54 (53) Male genitalia broader, subparallel-sided.
- 55 (56) Head blackish; median lobe of male genitalia angulate at apicolateral corners in dorsal view (HROMÁDKA, 1980, Abb. 1)....*S. biwa* HROMÁDKA.
- 56 (55) Head with interocular area reddish brown in anterior half, blackish in posterior one; median lobe of male genitalia rounded at apicolateral corners in dorsal view (Fig. 2 G).....*S. koinobori* HROMÁDKA.

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摘 要

直海俊一郎：日本産メダカハネカクシ亜科の研究。VIII. メダカハネカクシ属 *Parastenus* 亜属，3。——本論文で，*Parastenus* 亜属に含まれる日本産 29 種について検索表を作成した。また，*Stenus koinobori* HROMÁDKA の雄を最初に記録して，その交尾器 (Fig. 2 G-H) を図示した。本種の雄交尾器は，*S. biwa* HROMÁDKA のものに似ているが，中央片の先端両側部が丸くなっている点が異なっている。*S. hirtellus* SHARP, *S. cirrus* BENICK および *S. cirriformis* NAOMI の 3 種は，第 4 付節が単純，腹側板が欠消していて，腹部には強い光沢があり，長い直立毛を疎に装うという形質を共有していることにより，ひとつの単系統群を形成していると考えた。加えて，*S. indubius* SHARP の頭部の点刻や雄交尾器形態に変異があることを報告した。

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