

Three New Species of the Genus *Stenus* Latreille from Japan (Coleoptera, Staphylinidae)*

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Abstract Three new species of the genus *Stenus* Latreille are described from Japan: *S. (Stenus s. str.) distermimus* sp. n. (Honshu: Chiba Pref.), *S. (Hypostenus) dubitativus* sp. n. (Amami Island), and *S. (H.) fukuimontium* sp. n. (Honshu: Fukui Pref.).

Key words: *Stenus*, Staphylinidae, new species, Japan.

Our knowledge of the Japanese *Stenus*-fauna has recently increased considerably. From numerous contributions published by my dear colleague S.-I. Naomi we had to learn that only less than half of the total number of species actually living in Japan have been known ten years ago. Inventory of the respectable fauna has not yet come to an end, so every year either new species come to light or already described species are found in (mainly Northern) Japan. This small contribution is based on materials kindly sent by Dr. Naomi for study.

Stenus (Stenus s. str.) distermimus Puthz sp.n.

[*Stenus distans* Sharp; Naomi and Takeda, 1991, J. Nat. Hist. Mus. Inst. Chiba, 1: 9; other citations: see there]

Male and female. Body length: 4.2–5.3 mm (fore-parts: 2.3–2.5 mm).

Short-winged, black, fore-parts moderately shiny, abdomen pretty shiny, punctation of head and abdomen coarse and dense, that of pronotum slightly coarser and very dense, that of elytra yet slightly coarser than on pronotum and very dense, in some parts coallescent; pubescence of fore-parts slightly perceptible, that of abdomen moderately short, distinct. Antennae with first 2 segments black to dark-brown, following segments brown, club slightly darker. Maxillary palpi

yellowish. Legs reddish-brown, knees distinctly, apical points of tarsal segments less distinctly infuscate. Labrum blackish, moderately densely pubescent.

Head slightly or distinctly narrower than elytra (41: 41,5; 40: 43,5, proportional measurements taken from male-holotype and from one female-paratype from Mt. Kiyosumi), front broad (average distance between eyes: 23), deeply excavated, median portion distinctly narrower than each of the side portions, broadly elevated but distinctly less high than inner eye-level; punctation coarse and dense, average diameter of puncture as wide as apical cross section of 2nd antennal segment, interstices on side portions much smaller than half the diameter of punctures except a very small area (1–2 punctures wide) near inner eye margins posteriorly, where they can become nearly as large as one puncture; punctation of elevated median portion slightly less dense, interstices in most cases also narrower than half the diameter of a puncture. Antennae short, when reflexed extending towards posterior 3rd of pronotum, penultimate segments distinctly but less than 1.5 times longer than broad.

Pronotum distinctly but little longer than broad (36: 32,5; 34,5: 31,5), broadest in about middle, sides towards anterior margin nearly straightly convergent, towards posterior margin distinctly concave; in dorsal middle

* 228th contribution to the knowledge of Steninae.

there can be seen a very narrow, long and deep medial furrow, side portions slightly but not remarkably uneven; punctation very coarse and very dense, somewhat irregular: about half the punctures distinctly coarser than those on frons, other half about equal in coarseness to those on frons, interstices less than half as wide as half the diameter of punctures.

Elytra distinctly broader than head (41,5: 40; 43,5: 40) and broader than long (41,5: 40; 43,5: 38), outline somewhat trapezium-like, shoulders moderately oblique, sides straightly divergent, distinctly constricted in posterior 4th, posterior margin broadly and roundly emarginate (sutural length: 31; 29); surface nearly even, no remarkable impression dorsally, some slight impressions laterally; punctation very coarse and very dense, irregular, in inner half slightly longitudinally coalescent, diameter of largest punctures as large as widest cross section of 2nd antennal segment, interstices mostly smaller than half the diameter of punctures, can become as large as on side portions.

Abdomen broad, *Hypostenus*-like vaulted, moderately narrowed behind, paratergites distinctly declining, narrow, those of segment 4 about as broad as 2nd antennal segment, punctation on paratergite consists of one series of sparsely set punctures, except on paratergite 3, all interstices are much larger than diameter of punctures; anterior segments each with a distinct median carina basally, basal furrows of first tergites moderately deep, 7th tergite apically with a distinct but moderately broad membranous fringe (winges of the species are reduced); at first glance punctation coarse and dense but not at all crowded, denser on side portions than in the middle of tergites, where they are distinctly larger than half the diameter of punctures, sometimes as large as punctures themselves; punctation of first tergites slightly less coarse than that near eyes, becoming distinctly finer on posterior tergites, punctures of tergite 6 are as large as median cross section of 3rd antennal segment, sparsely set punctures of tergite 10 as large as one eye facet near inner eye-margin.

Legs robust, posterior tarsi two thirds the length of metatibiae, 1st segment distinctly longer than 2nd and 3rd segments together, much longer than 5th segment.

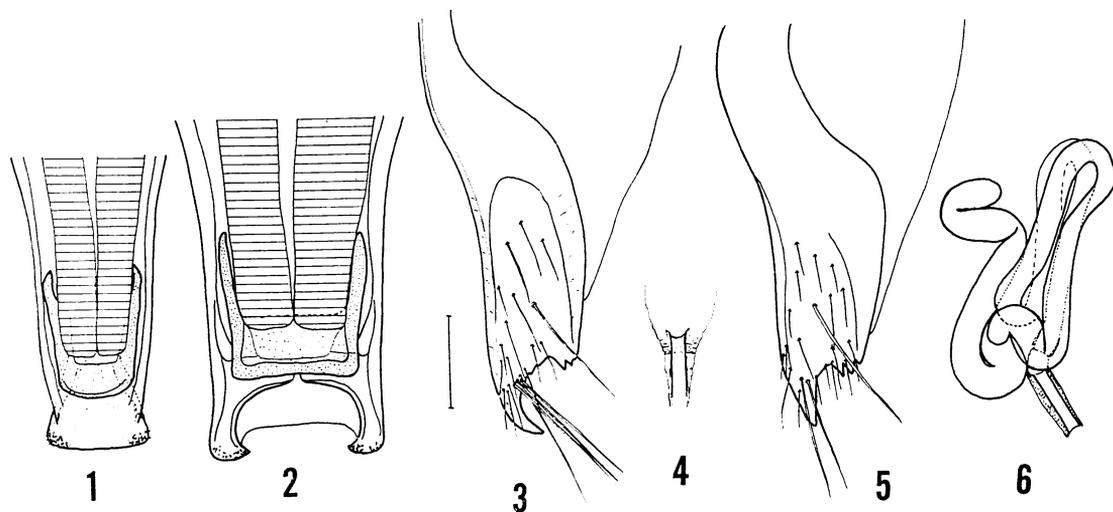
Pronotum distinctly, elytra slightly less distinctly reticulate, head and abdomen without microsculpture except tergite 9.

Male. Femora broadened, posterior femora internally densely set with long setae, mesotibiae with a strong apical tooth, metatibiae with a distinct but minute preapical spine. Metasternum broadly impressed, densely and moderately coarsely punctate with erect pubescence, posterior middle with a narrow smooth area, 4th and 5th sternite nearly imperceptibly impressed, 6th sternite with a shallow impression in posterior middle, 7th sternite broadly and distinctly impressed in posterior half, sides of impression strongly elevated and divergent, posterior margin broadly emarginate, posterior portion of impression impunctate, shiny. Ventromedian pubescence of sternites long and semi-erect, extending well beyond the posterior margin of sternites, 8th sternite with a broad, nearly semicircular notch in about posterior 9th, no special characters ventrally, 9th sternite apicolaterally with a strong tooth, 10th tergite apically rounded. Edeagus (Fig. 2) principally as in other species of the *clavicornis*-group, medianlobe apically emarginate, apical sides internally with an acute angle. Parameres slightly longer than the medianlobe, in apical 3rd densely set with long setae.

Female. Seventh sternite in posterior middle more densely punctured and pubescent than on the sides, 8th sternite broadly rounded at posterior margin where sometimes can be seen a small excision. Valvifer apicolaterally with a narrow, curved tooth.

Holotype, male (Type No. CBM-ZI 51863): Mt. Kiyosumi, Amatsukominato, Chiba Pref., 9. VI. 1991, T. Takeda coll.; 3 female-paratypes: Chiba Pref., Yomogi, Mt. Kiyosumi, 13. V. 1990, T. Takeda coll.; 1 female-paratype: Chiba, Mt. Takago, Kimitsu C., 7. VII. 1990, S. Naomi coll.; 1 male- and 1 female-paratypes: Mt. Kiyosumi, Amatsukominatocho, Chiba Pref. 14. VII. 1990, T. Takeda coll.

Distribution. Japan: Honshu.



Figs. 1-6. Ventral aspect of apical portion of the medianlobe of *Stenus* (*Stenus s. str.*) *distans* Sharp (Mt. Tomisan, Chiba) (1) and of *S.* (*Stenus s. str.*) *disterminus* sp. n. (holotype) (2). Apical portion of valvifer (3, 5), spermatheca (4 (fragment ?), 6) of *S.* (*Hypostenus*) *dubitativus* sp. n. (holotype) (3, 4) and of *S.* (*H.*) *fukuimontium* sp. n. (holotype) (5, 6). Scale = 0,1 mm.

Remarks. *Stenus disterminus* sp. n. belongs to the species with *Hypostenus*-like vaulted abdomen in the group of *S. clavicornis* (Scopoli, 1763), and is the sister-species of (*S. distans* Sharp + *S. calliceps* Bernhauer). It has been several times recorded under the name of *S. distans* (see reference). The new species can be differed from that species by its sparser abdominal punctation (in *S. distans* also the middles of tergites are very densely punctate, interstices mostly smaller than half the diameter of punctures; on tergite 7 interstices are distinctly smaller than diameter of punctures, in the new species they are distinctly larger than punctures; whole abdomen in *S. distans* is less shiny, nearly equally shiny as fore-parts, abdomen also mostly finely reticulate), by shorter and trapezium-like elytra (*S. distans* has more rectangular elytra and is fully winged), by longer pronotum and by less coarse punctation of the head, of which median portion of frons appears dull in *S. distans*, more or less shiny in the new species. *S. disterminus* also resembles strongly *S. calliceps* Bernhauer, from which it is distinguished by shorter, trapezium-like elytra, more declining and much more sparsely punctate paratergites, by lacking ground-

sculpture on head and abdomen, and by much sparser medial punctation of the tergites. From the other species of the *clavicornis*-group which are hitherto known from Japan (*S. amurensis* Eppelsheim and *S. clavicornis* (Scopoli)), *S. disterminus* can be separated by narrower, distinctly declining and sparsely punctate paratergites, and by its shiny abdomen. From all relatives the new species is clearly distinguished by its edeagus. Ventral abdominal characters of the males are nearly the same in *S. disterminus* and *S. distans* except the notch of sternite 8 which is deeper and has a triangular shape in *S. distans*.

The new species might represent an endemic element of the above quoted type of *Stenus s. str.* in Chiba Prefecture; *S. distans* has been recorded from Kyushu and from Honshu up to Kobe and to Chiba Pref.; *S. calliceps* Bernhauer is only known from Okayama.

***Stenus (Hypostenus) dubitativus*
Puthz sp. n.**

Female. Body length: 3.6-4.4 mm (fore-parts: 2.1-2.2 mm).

Brachypterous, black, moderately shiny, fore-parts coarsely and very densely punc-

tate, abdomen with the punctation moderately fine and moderately dense. Pubescence of fore-parts scarcely distinct, abdomen with short, moderately dense, procumbent pubescence. Antennae yellowish-brown, club slightly infusate. Maxillary palpi yellowish, 3rd segment slightly darker. Legs reddish-yellow, apices of femora slightly infusate. Labrum dark-brown, anterior margin lighter, brownish; clypeus and labrum moderately densely pubescent.

The whole insect with moderately shallow groundsculpture.

Head distinctly broader than elytra (38.5: 36), front very broad (average distance between eyes: 20.5), broadly but comparatively shallowly excavated, median portion not very distinctly separated from side portions, broader than side portions and only slightly (but distinctly) elevated, much less than level of inner eye-margins. Punctation of front moderately coarse, regular, dense to very dense, diameter of punctures distinctly larger than cross section of 3rd antennal segment, about as large as basal cross section of 2nd antennal segment, interstices mostly smaller than half the diameter of punctures, can be larger in anterior middle and behind antennal tubercles where interstices sometimes (but rarely) can become as large as punctures themselves. Antennae slender when reflexed, extending towards posterior 3rd of pronotum, penultimate segments distinctly longer than but not 1.5 times as long as broad.

Pronotum distinctly somewhat longer than broad (31.5: 28.5), broadest in about middle, sides towards anterior margin slightly convex, towards posterior margin distinctly, moderately strongly constricted; medially there can be seen a moderately distinct longitudinal impression, which is less distinct than in other species (f.e. *S. kumoma* Naomi) because it is shallow and densely punctate throughout; rest of surface without remarkable impressions but not totally even. Punctation coarse, very dense, somewhat irregular, punctures slightly larger than those of frons but differently cut out, therefore seeming to be larger, interstices everywhere smaller

than half the diameter of punctures.

Elytra narrower than head (36: 38.5), broader than long (36: 33), trapezium-like, shoulders oblique, sides moderately strongly divergent, constricted in posterior quarter, posterior margin deeply emarginate (sutural length: 20). A distinct impression at base laterally makes the sides there be distinctly elevated, one further but much shallower lateral impression in posterior quarter. Punctation very coarse and very dense, interstices everywhere smaller than half the diameter of punctures.

Abdomen broad, cylindrical, 3rd segment with a faint lateral line, segments 4-6 without lateral suture but not equally sculptured from dorsal towards ventral side: where in *Parastenus* (*per definitionem*) there can be seen a suture and/or paratergites between terga and sterna, this new species has a slightly elevated, shiny line which is formed by longitudinally confluent interstices of the punctation. Basal furrows of first segments very deep, 7th tergite apically with a narrow membranous fringe (species has reduced wings). Punctation moderately fine and moderately dense, distinctly but not very much finer behind; punctation of 3rd tergite less coarse than that of frons, interstices repeatedly as large as diameter of punctures, punctures of tergite 5 about as large as basal cross section of 3rd antennal segment, interstices nearly equally wide, punctures of tergite 7 as large as one eye-facet at inner eye margin, interstices distinctly larger but scarcely larger than 1.5 times as punctures themselves, 10th tergite distinctly, finely, moderately densely punctate.

Legs robust, posterior tarsi about 3/5 as long as metatibiae, 1st segment distinctly longer than the following 2 segments together, much longer than last segment, 4th segment deeply bilobed.

Male. unknown.

Female. Eighth sternite apically rounded, very slightly (and roundly) produced in middle. Valvifer (Fig. 3). Spermatheca (Fig. 4, fragment?) no strongly sclerotized portion has been found in this single specimen, only a piece which corresponds to the distal portion

of spermathecae known from other species, a piece which ends into membranes and not into tubes (artifact?).

Holotype, female (Type No. CBM-ZI 51864): Amami Island: Yuwandake, Kagoshima Pref., 5. V. 1987, S. Nomura leg.

Distribution. Japan: Amami Island.

Remarks. *Stenus dubitativus* sp. n. probably belongs to the group of *S. indubius* Sharp [name!], where it mostly resembles *S. takane* Naomi. From that species it can be distinguished by less elevated middle portion of frons, by medial impression of pronotum, by deeper humeral impression, by slightly less coarse but distinctly less dense abdominal punctation, and by less distinct traces of abdominal margination. It also resembles *S. unagi* Hromádka and *S. sakana* Hromádka, from which it is separated by shallower middle of frons, distinctly less coarse punctation of the first tergites, and deeper humeral impressions. From *S. sawadai* Hromádka it differs by coarser and denser punctation of elytra, less deep reticulation especially of the abdomen, and by its distinct humeral impression; from *S. ohishii* Naomi by much shallower middle portion of frons and much sparser and shorter pubescence throughout.

Stenus (Hypostenus) fukuimontium

Puthz sp. n.

Female. Body length: 3.7–4.6 mm (foreparts: 2.1–2.3 mm).

Brachypterous, head black, pronotum and elytra reddish-brown, abdomen dark brown; moderately shiny. Punctation of head moderately fine and moderately dense, that of pronotum moderately coarse and very dense, that of elytra slightly coarser than that on pronotum, very dense, slightly coalescent, that of abdomen moderately coarse (anteriorly) to fine (posteriorly), dense. Pubescence of pronotum and elytra scarcely distinct, that of head and abdomen short but distinct, procumbent. Antennae brownish-yellow, club slightly infusate. Maxillary palpi yellowish. Legs reddish-yellow, tarsi yellowish, apices of femora and of tarsal segments slightly infusate. Labrum brownish, clypeus and labrum sparsely pubescent.

Whole body deeply reticulate.

Head very large, distinctly broader than elytra (40.5: 35.5), front narrow (average distance between eyes: 19), with two deep longitudinal furrows, median portion as broad as each of the side portions, strongly elevated, extending to about the level of inner eye-margins. Punctation moderately fine and moderately dense, diameter of punctures about as large as medial cross section of 3rd antennal segment, on side portions interstices are repeatedly larger than half the diameter of punctures, but in most cases smaller than punctures themselves, in the middle of the median portion interstices are as wide as diameter of neighbouring punctures. Antennae slender, when reflexed extending towards posterior 3rd of pronotum, penultimate segments 1.5 times as long as broad.

Pronotum nearly as broad as long (29.5: 30), sides strongly rounded, broadest in anterior half, where the sides for some distance seem to be parallel, near anterior margin for a short distance slightly concave (=transverse impression), in posterior half the pronotum is strongly constricted, the sides moderately concave; a distinct, nearly 2 punctures-wide median impression in the middle, laterally more, mostly transverse impressions, general facies uneven. Punctation distinctly coarser than on head, more irregular, and very dense except in medial impression, where interstices can be larger than diameter of punctures, all other interstices distinctly smaller than half the diameter of punctures, yet smaller at lateral parts where the punctation can become slightly coalescent.

Elytra distinctly narrower than head (35.5: 40.5), distinctly broader than long (35.5: 30), shoulders oblique, sides distinctly, roundly divergent, moderately constricted in posterior 3rd, posterior margin obtuse-angled strongly emarginate (sutural length: 24); a distinct and broad longitudinal impression near suture, a wide impression in humeral quarter, one further less distinct impression in posterior lateral quarter. Punctation coarse and dense, coarser than on pronotum, largest punctures about as large as medial cross section of 9th antennal segment, interstices lat-

erally mostly distinctly smaller than half the diameter of punctures, at some places slightly coalescent, in inner half less narrow but also mostly smaller than half the diameter of punctures, scarcely becoming larger.

Abdomen broad, cylindric, no lateral margin on segments 3–6, basal constrictions of first segments deep, 7th tergite apically with a distinct but narrow membranous fringe (wings of the species are reduced). Punctuation on tergite 3 moderately coarse and dense, slightly coarser than on frons, becoming distinctly finer towards apex but dense throughout, punctures on tergite 5 about as large as basal cross section of 3rd antennal segment, interstices smaller than diameter of punctures, punctures of tergite 7 somewhat smaller, interstices scarcely larger than punctures, 10th tergite moderately densely set with fine punctures.

Legs robust, posterior tarsi slightly longer than 2/3 of the metatibiae, 1st segment distinctly but not much longer than 2nd and 3rd segments together, much longer than 5th segment, 4th segment deeply bilobed.

Male. unknown.

Female. Eighth sternite towards posterior middle distinctly but slightly, roundly produced. Valvifer (Fig. 5). Spermatheca (Fig. 6).

Holotype, female (Type No. CBM-ZI 51865): Honshu: Fukui Pref., Arashi, 16. V. 1965, H. Sasaji leg.

Distribution. Japan: Honshu (Fukui).

Remarks. *Stenus fukuimontium* sp. n. resembles very much *S. kasumi* Naomi, from which it is distinguished by its colouration, less

uneven elytra (f.e. postero-lateral impression is much deeper in *S. kasumi*), and finer posterior abdominal punctation; from *S. kumoma* Naomi and *S. inaequatus* Puthz it is separated by larger head, more divergent elytra, less deep impression on pronotum and elytra, finer posterior abdominal punctation, and lighter colouration of pronotum and elytra; from *S. carura* Naomi it can be differed by larger size, less elevated median portion of frons, and slightly less dense abdominal punctation.

Reference

- Naomi, S. and T. Takeda. 1991. Studies on the subfamily Steninae (Coleoptera, Staphylinidae) from Japan XVIII. Stenid fauna of Chiba Pref., central Japan. J. Nat. Hist. Mus. Inst. Chiba 1: 9–13.

日本産メダカハネカクシ属 (コウチュウ目, ハネカクシ科) の3新種の記載

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メダカハネカクシ属に属する3新種のハネカクシを本州(千葉, 福井)および南西諸島(奄美大島)から記載した。最初の種は *Stenus* (*Stenus* s. str.) *distertinus* で千葉県清澄山と高宕山から発見された種である。第2の種は *S. (Hypostenus) dubitativus* であり, 鹿児島県奄美大島から発見された種である。第3の種は *S. (Hypostenus) fukuimontium* であり, 福井県から発見された種である。